
2019-2020
GRADUATE
CATALOG
Baylor University

The Graduate School

2019 - 2020 Bulletin • Volume 122 • May 2019

BAYLOR
UNIVERSITY

PURPOSE OF THIS PUBLICATION

This publication provides a description of those programs and activities of Baylor University which are indicated in the title and text. It is not an offer to make a contract.

The administration and faculty of Baylor University believe that the educational and other programs of Baylor University, including those described herein, are effective and valuable, and that they provide skills and/or understanding in keeping with the subject matter of the program.

The ultimate results of programs offered, however, in terms of achievement, employment, professional licensing, or other measure, are also dependent on factors outside the programs, such as the personality and energy of the students, governmental or institutional regulations, and market conditions. Therefore, except as specifically stated herein, Baylor University makes no representation or contract that following a particular course or curriculum will result in specific achievement, employment or qualification for employment, admission to degree programs, or licensing for particular professions or occupations.

It is sometimes necessary or appropriate to change the programs offered. Baylor University retains the right to terminate or change any and all aspects of its educational and other programs at any time without prior notice.

NOTICE OF NONDISCRIMINATORY POLICY

Baylor University complies with all applicable federal and state nondiscrimination laws, and does not engage in prohibited discrimination on the basis of race, color, nationality or ethnic origin, gender, age, disability, or veteran status in either employment or the provision of services. The University is governed by a predominantly Baptist Board of Regents and is operated within the Christian-oriented aims and ideals of Baptists. Baylor is also affiliated with the Baptist General Convention of Texas, a cooperative association of autonomous Texas Baptist churches. As a religiously-controlled institution of higher education, Baylor University is exempted from compliance with some provisions of certain civil rights laws, including some provisions of Title IX of the Education Amendments of 1972.

EQUAL ACCESS TO UNIVERSITY EDUCATIONAL PROGRAMS

Baylor University provides equal access to all University educational programs to every qualified student. However, if any student requires special personal services or equipment, the student will be responsible for the expenses thereof. This policy includes the expense of providing personal tutors, personal attendants, medical technicians, and so forth. The Office of Access and Learning Accommodation will assist such student in communicating with the proper community or governmental agency to secure any available financial assistance to meet his or her needs.

DIRECTORY INFORMATION

Directory information is that information that is customarily made public without the written consent of the student. However, under the provisions of the Family Educational Rights and Privacy Act of 1974, a student may ask Baylor University not to disclose directory information by making written notice to the Office of the Registrar. Request for nondisclosure will be honored by the University until notified in writing that information should no longer be withheld. Directory information includes: name, address, telephone number, e-mail address, dates of attendance, level and classification, University ID card photograph, previous institution(s) attended, major field of study, awards, scholarships, honors, degree(s) conferred and date(s), full-time/part-time status, earned hours, expected graduation date or degree candidacy, thesis and dissertation titles and advisors, past and present participation in officially recognized sports and activities, physical factors of athletes (age, height, weight), and date and place of birth.

LEGAL NOTICE

If you are applying for admissions to a program that may prepare you for an occupational license and/or if you later decide to change to such a program, Texas law requires that Baylor notify you of your potential ineligibility to obtain licenses due to prior criminal convictions. For more information visit https://www.baylor.edu/admissions/index.php?id=948617.

STUDENT AID INFORMATION

Financial aid programs available to graduate students include Federal Work-Study, Direct GradPlus Loans, and alternative loans through various private lenders. Students interested in consideration for financial aid should complete the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov. Visit the Student Financial Aid Office website at www.baylor.edu/sfs for additional information regarding the financial aid application process.

The provisions of this catalog do not constitute a contract, expressed or implied, between Baylor University and any applicant, student, student's family, faculty, or staff member. Baylor University reserves the right to withdraw courses at any time, or change fees, tuition, rules, calendar, curricula, degree programs, degree requirements, graduation procedures, and any other requirement affecting students. Changes will become effective at the time the proper authorities so determine, and the changes will apply to both prospective students and those already enrolled. This catalog is a general information publication only, and it is not intended to, nor does it contain all regulations that relate to students.

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MISSION STATEMENT

The mission of Baylor University is to educate men and women for worldwide leadership and service by integrating academic excellence and Christian commitment within a caring community.

Chartered in 1845 by the Republic of Texas and affiliated with the Baptist General Convention of Texas, Baylor is both the state's oldest institution of higher learning and the world's largest Baptist university. Established to be a servant of the church and of society, Baylor seeks to fulfill its calling through excellence in teaching and research, in scholarship and publication, and in service to the community, both local and global. The vision of its founders and the ongoing commitment of generations of students and scholars are reflected in the motto inscribed on the Baylor seal: *Pro Ecclesia, Pro Texana* – For Church, For Texas.

Pro Ecclesia. Baylor is founded on the belief that God's nature is made known through both revealed and discovered truth. Thus, the University derives its understanding of God, humanity, and nature from many sources: the person and work of Jesus Christ, the biblical record, and Christian history and tradition, as well as scholarly and artistic endeavors. In its service to the church, Baylor's pursuit of knowledge is strengthened by the conviction that truth has its ultimate source in God and by a Baptist heritage that champions religious liberty and freedom of conscience. Without imposing religious conformity, Baylor expects the members of its community to support its mission. Affirming the value of intellectually informed faith and religiously informed education, the University seeks to provide an environment that fosters spiritual maturity, strength of character, and moral virtue.

Pro Texana. Integral to its commitment to God and to the church is Baylor's commitment to society. Whereas that society in the mid 1800s was limited to Texas, today Baylor's sphere of influence is indeed the world. The University remains dedicated to the traditional responsibilities of higher education – dissemination of knowledge, transmission of culture, search for new knowledge, and application of knowledge – while recognizing the global proportions these responsibilities have assumed. Moreover, within the context of an ethnically and culturally diverse community, Baylor strives to develop responsible citizens, educated leaders, dedicated scholars, and skilled professionals who are sensitive to the needs of a pluralistic society. To those ends, Baylor provides expanded opportunities for civic education and for church and community service at home and abroad.

Pro Ecclesia, Pro Texana. Baylor University is committed to excellence at the undergraduate, graduate, and professional levels. Within the undergraduate programs, the University seeks to familiarize students with the principal bodies of knowledge, cultural viewpoints, belief systems, and aesthetic perspectives that affect the world in which they live. Within the graduate and the professional programs, the University provides advanced educational opportunities to develop ethical and capable scholars and practitioners who contribute to their academic disciplines, professional fields, and society. Baylor encourages all of its students to cultivate their capacity to think critically, to assess information from a Christian perspective, to arrive at informed and reasoned conclusions, and to become lifelong learners. Beyond the intellectual life, the University pursues the social, physical, ethical, and spiritual development of each student.

Aware of its responsibility as the largest Baptist educational institution in the world and as a member of the international community of higher learning, Baylor promotes exemplary teaching, encourages innovative and original research, and supports professional excellence in various specialized disciplines. Advancing the frontiers of knowledge while cultivating a Christian world-view, Baylor holds fast to its original commitment – to build a university that is *Pro Ecclesia, Pro Texana*.

HISTORICAL HIGHLIGHTS OF BAYLOR UNIVERSITY

Baylor University was founded under the leadership of Judge R.E.B. Baylor, Reverend James Huckins, and Reverend William Milton Tryon, three farsighted pioneer missionaries working through the Texas Baptist Education Society. They, along with other associations, sent representatives in 1848 to create the Baptist State Association, which later became the Baptist State Convention.

1845—Baylor chartered on February 1 by the Republic of Texas.

1849—Instruction in law began.

1857—School of Law organized.

1883—School of Law closed.

1920—School of Law reorganized.

1886—Baylor merged with Waco University and moved to Waco.

1903—College of Medicine organized in Dallas by assuming responsibility for operations of the University of Dallas Medical Department.

1943—Moved to Houston.

1969—Given independent status.

1903—College of Pharmacy organized in Dallas.

1930—College of Pharmacy terminated.

1905—Theological Seminary organized in Waco.

1907—Separated from Baylor University.

1910—Moved to Fort Worth.

1918—College of Dentistry organized in Dallas by taking over the State Dental College, founded in 1905.

1971—The College was separately incorporated in 1971, although Graduate programs continued to be offered through Baylor University.

1996—The College became a part of the Texas A&M System on September 1.

1919—Baylor Hospital organized in Dallas, now Baylor University Medical Center.

1919—College of Arts and Sciences organized.

1919—College of Fine Arts organized, which consisted of offerings in music and in expression.

1921—Terminated in favor of the present School of Music.

1919—School of Education organized.

1921—Training School of the Texas Baptist Memorial Sanitarium, originally organized as a diploma-granting program in 1909, incorporated into Baylor University as Baylor Hospital School of Nursing.

1950—The School of Nursing reorganized as an academic unit of Baylor University offering a Bachelor of Science in Nursing degree.

2000—Renamed Louise Herrington School of Nursing in honor of Louise Herrington Ornelas.

1921—School of Music organized.

1923—School of Business organized.

1959—Renamed Hankamer School of Business in honor of Mr. and Mrs. Earl Hankamer of Houston.

1947—Graduate School organized.

Graduate study and degrees have been offered since 1894.

1951—Graduate program in hospital administration established in conjunction with the Army Medical Field Service School, Fort Sam Houston.

1971—Graduate program in physical therapy added at Fort Sam Houston.

1971—Program in physician's assistant added in collaboration with the Army Medical Field Service School, Fort Sam Houston; terminated in 1977.

1972—Army Medical Field Service School renamed Academy of Health Sciences of the U.S. Army.

1973—Baylor University Memorandum of Agreement with the U.S. Army Academy of Health Sciences affiliated over 20 programs of instruction with 150 course offerings for academic credit at Baylor University; terminated in 1977 for all programs except Health Care Administration and Physical Therapy.

1987—University School organized. Responsibilities reassigned to other academic units in 1992.

1993—George W. Truett Theological Seminary organized in Waco.

1994—Seminary classes began.

1995—School of Engineering and Computer Science organized.

2002—Honors College organized.

2005—School of Social Work granted independent status from the College of Arts and Sciences.

2014—Robbins College of Health and Human Services organized.

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Regents as of May 1, 2019

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Graduate Admissions: (254) 710-3583
Graduate Records: (254) 710-4610
Graduate_School@baylor.edu

OTHER SCHOOLS, COLLEGES, AND INSTITUTES
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Robbins College of Health and Human Sciences

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School of Music

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Health Readiness Center of Excellence

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U.S. Military Academy
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Mike Crowell, Lieutenant, Ph.D. ..... Director, Doctor of Science in Physical Therapy, Sports Medicine

ACCREDITATIONS AND MEMBERSHIPS

Baylor University consists of 11 colleges and schools located in Waco, Dallas, and San Antonio. Baylor University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelor's, master's, specialist, and doctoral degrees. Individuals who wish to contact the Commission on Colleges pertaining to the accreditation status of the University may write the Commission at 1886 Southern Lane, Decatur, GA 30033-4097, or call (404) 679-4501. In addition, the University and its schools and departments are accredited by, and/or hold membership in, the following organizations:

General

The Association of Texas Colleges and Universities
The Association of American Colleges and Universities
The American Council on Education
The Southern University Conference
The American Council of Learned Societies
The Texas Council of Church-Related Colleges
The Association of Southern Baptist Colleges and Schools
The Lilly Fellows National Network of Church-Related Colleges and Universities
The American Association of University Women
The American Society of Allied Health Professions

The Graduate School

The Council of Graduate Schools
The Association of Texas Graduate Schools
The Conference of Southern Graduate Schools
The Midwestern Association of Graduate Schools

Colleges and Schools

College of Arts and Sciences

Council of Colleges of Arts and Sciences
Phi Beta Kappa

Hankamer School of Business

AACSB International – The Association to Advance Collegiate Schools of Business
Beta Gamma Sigma

School of Education

The American Association of Colleges for Teacher Education
Program Accreditation by the State Board for Educator Certification
Kappa Delta Pi

School of Engineering and Computer Science

Computer Science: The B.S.C.S. degree is accredited by the Computing Accrediting Commission (CAC) of the Accreditation Board for Engineering and Technology (ABET)
Engineering: Electrical and Computer Engineering, Engineering, and Mechanical Engineering programs accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET)

Robbins College of Health and Human Sciences

Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association
Council on Education for Public Health
Commission on Accreditation of AT Education
American Kinesiology Association
National Academy of Kinesiology
Eta Sigma Gamma
Society for Public Health Education-American Association for Health Education

School of Law

The Association of American Law Schools
Accredited by the American Bar Association

School of Music
The National Association of Schools of Music
The Texas Association of Music Schools
Pi Kappa Lambda

Louise Herrington School of Nursing
Accredited by the Commission on Collegiate Nursing Education and the Texas State Board of Nurse Examiners
The Southern Regional Educational Board, Council on Collegiate Education for Nursing
The American Association of Colleges of Nursing

Diana R. Garland School of Social Work
Council on Social Work Education

George W. Truett Theological Seminary
The Association of Theological Schools

Departments and Programs

College of Arts and Sciences
American Mathematical Society
American Studies: Member, The American Studies Association and The American Studies Association of Texas
Athletic Training: Commission on Accreditation of Athletic Training Education
Aviation Sciences: Member, The University Aviation Association
Chemistry: Approved by the American Chemical Society
Child and Family Studies accredited by the National Association for the Education of Young Children
Communication Sciences and Disorders: Accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association
Community Health: SABPAC (SOPHE-AAHE Baccalaureate Program Approval Committee)
Environmental Health Science: Association of Environmental Health Academic Programs (AEHAP)
Bachelor of Science in Environmental Health Science is accredited by the National Environmental Health Science and Protection Accreditation Council (EHAC)
Interior Design: Accredited by the Council for Interior Design Accreditation
Journalism, Public Relations and New Media: Accredited by the Accrediting Council on Education in Journalism
Mathematical Association of America
Mathematical Sciences Research Institute
Modern Languages and Cultures: Member, Association of Departments of Foreign Languages; Modern Language Association and South Central Modern Language Association
Nutrition Sciences: Accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association
Political Science: American Political Science Association
Psychology, Clinical Psychology (Psy.D. Degree): Accredited by American Psychological Association
Religion: Baptist History and Heritage; Hispanic Theological Initiative Consortium; Southwest Commission on Religious Studies
Theater Arts: National Association of Schools of Theater

Graduate School
Health Administration: Accredited by the Commission on Accreditation of Healthcare Management Education (CAHME)
Physical Therapy: Accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association

2019 – 2020 ACADEMIC CALENDAR

Summer 2019/Fall 2019/Spring 2020

SUMMER SEMESTER 2019

Invoice and Graduation — Summer

April	30 -	Summer Financial Settlement begins. View E-Bill and make payment online at www.baylor.edu/ebill. Students confirm attendance and check financial settlement online at www.baylor.edu/bearweb.
May	15 -	Summer invoice payment and confirmation due date. (Summer Session I & II, Minimester and Full Summer Session). Cancellation date for any student who has a Minimester course in their schedule.
	30 -	Deadline for summer Financial Settlement. Students that registered prior to May 28 for either Summer Session I, II, or Full Summer Session must pay and confirm attendance by 5 p.m. to prevent class cancellation. If allowed to re-register after cancellation, a $100 re-registration fee will be assessed.
June	1 -	Apply for alternative loans by this date. Most alternative loans require 4-6 weeks of processing time. You should determine your eligibility prior to the payment due date of July 31st for the upcoming Fall semester.
	3 -	Last day to satisfy graduate foreign language requirement for August 2019 Commencement. Refer to http://www.baylor.edu/mlc for details.
	10 -	Last day for graduate students to file for August 2019 graduation. Access from Graduate School webpage: www.baylor.edu/graduate/degree.
	17 -	Deadline for **purchasing** doctoral regalia for August 2019 Commencement.
	28 -	Deadline for summer Financial Settlement. Students who registered for Summer II only after May 27. Classes will be cancelled if not settled by 5 p.m. If allowed to re-register after cancellation, a $100 re-registration fee will be assessed.
July	10 -	Last day to take oral examination (oral defense) for dissertation/thesis candidates for August 2019 Commencement. (All incompletes for coursework other than dissertation/thesis hours must be cleared before the oral examination can be taken). ***The Preliminary Technical Review is required and must be schedule at least 2 weeks before the oral examination. See Guidelines for Preparing the Dissertation and Thesis: www.baylor.edu/graduate/degree.***
	11 -	Last day for submission of the Record of Oral Examination form to Graduate School for dissertation/thesis students.
	15 -	Last day for electronic submission of the departmentally defended and approved copy of the dissertation/thesis to Graduate School for August 2019 Commencement.
	17 -	Deadline for **renting** doctoral regalia for August 2019 Commencement.
	22 -	Change-of-Grade form to remove incompletes and petitions for transfer of credit for all students and all coursework must be received by the Graduate School by this date.
August	14 -	Last day for students in non-thesis programs to take the oral or comprehensive examination for August 2019 Commencement. The Record of Oral Examination Form, or results from comprehensive exams, must be **delivered** to the Graduate School by this date **(do not send in campus mail)**.
	15 -	Administrative check on graduate student candidates for graduation, including overall GPA requirements, foreign language proficiency requirements, and any outstanding obligations.
	16 -	Doctoral Dinner, 6:30 p.m. Cashion.
	17 -	Commencement, Ferrell Center, 9:30 a.m. Commencement information is available onlne at www.baylor.edu/commencement.

Minimester — May 15 - June 3

May	14 -	Last day to register for Minimester through BearWeb.
	15 -	Class sessions begin for Minimester.
	16 -	Students that withdraw from the University for the Minimester session after this date will receive a notation of W (Withdrawal) on their transcript in all classes (through May 24).
	16 -	Classes dropped after this date for the Minimester session will be recorded as a W (Withdrawal) on the transcript (through May 24).

	16	-	Last day to drop a class without advisor approval.
	24	-	Last day on which a student may drop a class for the Minimester session.
	24	-	Last day on which a student may withdraw from the University for the Minimester session.
	27	-	Memorial Day Holiday
June	3	-	End of Minimester; final examinations for Minimester.
	4	-	Minimester grades due at 5 p.m.

Full Summer Session — June 4 - August 14

June	4	-	Classes for Full Session begin.
	4	-	Late registration begins.
	11	-	Last day to register or add courses for the Full Summer Session.
	13	-	Students that withdraw from the University for the Full Summer Session after this day will receive a notation of W (Withdrawal) on their transcript in all classes (through July 23).
	13	-	Classes dropped after this day for the Full Summer Session will be recorded as a W (Withdrawal) on the transcript (through July 23).
	13	-	Last day to drop a class without advisor approval.
	14	-	Assessment of change in schedule fee begins.
July	4	-	Independence Day Holiday
	23	-	Last day on which a student may drop a class for the Full Summer Session.
	23	-	Last day on which a student may withdraw from the University for the Full Summer Session.
August	14	-	End of Full Summer Session; final examinations for Full Summer Session.
	15	-	Grades due for Graduaton candidates at 10 a.m.; due at NOON for all other students.
	15	-	Administrative check on candidates for graduation.
	17	-	Commencement, Ferrell Center, 9:30 a.m.

Session I — June 4 - July 9

June	4	-	Classes for Session I begin.
	4	-	Late registration begins.
	6	-	Last day to register or add courses for Session I.
	7	-	Students that withdraw from the University for Session I after this day will receive a notation of W (Withdrawal) on their transcript in all classes (through June 26).
	7	-	Classes dropped after this day for Session I will be recorded as a W (Withdrawal) on the transcript (through June 26).
	7	-	Last day to drop a class without advisor approval
	10	-	Assessment of change in schedule fee begins.
	26	-	Last day on which a student may drop a class for Session I.
	26	-	Last day on which a student may withdraw from the University for Session I.
July	4	-	Independence Day Holiday
	9	-	End of Session I; final examinations for Session I.
	10	-	Grades due at 5 p.m.
August	17	-	Commencement, Ferrell Center, 9:30 a.m.

Session II — July 11 - August 14

July	11	-	Classes begin for Session II.
	11	-	Late registration begins
	15	-	Last day to register or add courses for Session II.
	16	-	Students that withdraw from the University after this day for Session II will receive a notation of W (Withdrawal) on their transcript in all classes (through August 2).
	16	-	Classes dropped after this day for Session II will be recorded as a W (Withdrawal) on the transcript (through August 2).
	16	-	Last day to drop a class without advisor approval.
	17	-	Assessment of change in schedule fee begins.
August	2	-	Last day on which a student may drop a class for Session II.
	2	-	Last day on which a student may withdraw from the University for Session II.
	14	-	End of Session II; final examinations for Session II.

15 - Grades due for Graduation candidates at 10 a.m.; due at NOON for all other students.
17 - Commencement, Ferrell Center, 9:30 a.m.

FALL SEMESTER — August 26 - December 17

July 6 - Fall Financial Settlement begins. View E-Bill and make payment online at www.baylor.edu/ebill. Students confirm attendance and check financial settlement status online at www.baylor.edu/bearweb.
31 - Fall invoice payment and confirmation due date. A $100 late payment fee will be charged if financial settlement is not complete (payments must be received) by the due date.

August 15 - Deadline for Fall Financial Settlement. Students must pay and confirm attendance by 5:00 p.m. to prevent class cancellation. If allowed to re-register after cancellation, a $150 re-registration fee will be assessed.
21 - Graduate School/New Graduate Student Orientation; details TBA. All day event, check here for details: www.baylor.edu/graduate/orientation
26 - Classes begin for Fall semester.
26 - Assessment of $100 late registration fee begins.
30 - Last day to register or add a class.

September 2 - Labor Day Holiday (no classes).
4 - Last day for graduate students to file for December 2019 Commencement. www.baylor.edu/graduate/degree
TBA - Formatting Worshops; Morrison Hall
11 - Students that withdraw from the University after this day will receive a notation of W (Withdrawal) on their transcript in all classes (through November 5).
11 - Classes dropped after this day will be recorded as W (Withdrawal) on the transcript (through November 5).
11 - Last day to drop a class without advisor approval.
12 - Assessment of change in schedule fee begins.
14 - Family Weekend

October 1 - FAFSA available for the upcoming academic year - https://fafsa.ed.gov
12 - Homecoming
14 - Deadline for purchasing doctoral regalia for December 2019 Commencement.
23 - Registration time-tickets viewable on BearWeb.
25 - Last day to take the oral examination (oral defense) for doctoral candidates for December 2019 Commencement. (All incompletes for coursework other than dissertation hours must be cleared before the oral examination can be taken.) *****The Preliminary Technical Review is required and must be scheduled at least 2 weeks before the oral examination. See Guidelines: www.baylor.edu/graduate/degree***
25-27 - Fall break

November 1 - Last day for submission of the Record of Oral Examination form to Graduate School for doctoral students.
4 - Last day for electronic submission of the departmentally defended and approved copy of the doctoral dissertation for December 2019 Commencement
5 - Last day on which a student may drop a class for the semester.
5 - Last day on which a student may withdraw from the University for the semester.
5 - Last day to take oral examination (thesis defense) for master's candidates for December 2019 Commencement. (All incompletes for coursework other than thesis hours must be cleared before the oral examination can be taken.) ***The Preliminary Technical Review is required and must be scheduled at least 2 weeks before the oral examination. See Guidelines for Preparing the Dissertation and Thesis: www.baylor.edu/graduate/degree.***
6 - Last day to satisfy the Graduate School foreign language requirement for December 2019 Commencement. Refer to www.baylor.edu/MFL for details.
6–22 - Spring 2020 Early Registration through BearWeb (tentative dates).
8 - Last day for submission of the Record of Oral Examination form to Graduate School for master's thesis students.

8 - Deadline for renting doctoral regalia for December 2019 Commencement.

15 - Last day for electronic submission of the departmentally defended and approved copy of the master's thesis for December 2019 Commencement.

27-Dec. 1 - Thanksgiving holiday (Wednesday through Sunday).

December 2 - Change of grade form to remove incompletes and petitions for transfer of credit for all students and all coursework must be received by the Graduate School by this date.

9 - Last day of classes for the Fall semester. Last day for students in non-thesis programs to take the oral or comprehensive examination for December 2019 Commencement. The Record of Oral Examination form or results from comprehensive exams must be **delivered** to Graduate School by this date **(do not put this in campus mail)**.

10-11- Study days.

12–14; 16-17- Final examinations (includes Saturday, December 14).

18 - Grades due for graduating students, 5 p.m.

19 - Administrative check on graduate student candidates for graduation, including overall GPA requirements, foreign language proficiency requirements, and any outstanding obligations.

19 - Grades due for all other students, 5 p.m.

20 - Doctoral Dinner, 6:00 p.m., BDSC, Barfield Drawing Room.

21 - Commencement at Ferrell Center, 9:30 a.m. and 2:30 p.m. Information available at www.baylor.edu/commencement.

SPRING SEMESTER — January 13- May 11

December 2 - Spring Financial Settlement begins. View E-Bill and make payment online at www.baylor.edu/ebill. Students confirm attendance and check financial settlement status online at www.baylor.edu/bearweb.

19 - Spring invoice payment and confirmation due date. A $100 late payment fee will be charged if financial settlement is not complete (payments must be received) by the due date. (Baylor University will be closed December 25-January 1 for the holidays.)

January 7 - Deadline for Spring Financial Settlement. Students must pay and confirm attendance by 5:00 p.m. to prevent class cancellation. If allowed to re-register after cancellation, a $150 re-registration fee will be assessed.

8 - Truett Seminary Founders Day/Spring Convocation

13 - Class sessions begin for Spring Semester.

13 - Assessment of $100 late registration fee begins.

17 - Last day to register or add courses.

20 - Martin Luther King, Jr. Holiday.

22 - Last day for graduate students to file for May 2020 Commencement. www.baylor.edu/graduate/degree.

29 - Classes dropped after this day will be recorded as a W (Withdrawal) on the transcript (through March 30).

29 - Students that withdraw from the University after this day will receive a notation of W (Withdrawal) on their transcript in all classes (through April 1)

29 - Last day to drop a class without advisor approval.

30 - Assessment of change in schedule fee begins.

February 1 - Priority date for completing the FAFSA to receive financial aid for the upcoming academic year.

March 7-15 - Spring break.

16 - Deadline for **purchasing** doctoral regalia for May 2020 Commencement.

18 - Registration time-ticket viewable on BearWeb.

20 - Last day to take the oral examination (oral defense) for doctoral dissertation candidates for May 2020 Commencement. (All incompletes for coursework other than dissertation hours must be cleared before the oral examination can be taken). *****The Preliminary Technical Review is required and must be scheduled at least 2 weeks before the oral examination. Resources that include the Guidelines for Preparing the Dissertation and Thesis and the Formatting Model are found at: http://www.baylor.edu/graduate/degree.***

	20	-	Last day to satisfy the graduate foreign language requirement and report the results to the Graduate School. Refer to www.baylor.edu/MLC for details.
	24	-	Last day for submission of the Record of Oral Examination form to Graduate School for doctoral candidates for May 2020 Commencement.
	27	-	Last day to take the oral examination (oral defense) for master's thesis candidates for May 2020 Commencement. (All incompletes for coursework other than thesis hours must be cleared before the oral examination can be taken.) *****The Preliminary Technical Review is required and must be scheduled at least 2 weeks before the oral examination. Resources that include the Guidelines for Preparing the Dissertation and Thesis and the Formatting Model at founs at: hppt://www.baylor.edu/graduate/degree.***
	30	-	Last day for electronic submission of the departmentally defended and approved copy of the doctoral dissertation to the Graduate School for May 2020 Commencement.
	30	-	Last day on which a student may drop a class for the semester.
	30	-	Last day on which a student may withdraw from the University for the semester.
March 31 - April	17	-	Summer and Fall 2020 Early Registration through BearWeb (tentative dates).
April	6	-	Last day for submission of the Record of Oral Examination form to Graduate School for master's thesis candidates for May 2020 Commencement.
	6	-	Last day for electronic submission of the departmentally defended and approved copy of the master's thesis to the Graduate School for May 2020 Commencement.
	10-13	-	Easter holidays.
	14	-	Deadline for **renting** doctoral regalia for May 2020 Commencement.
	17	-	Change of Grade form to remove incompletes and petitions for transfer of credit for all students and all coursework must be received by the Graduate School by this date.
	21	-	Diadeloso
May	1	-	Last day of classes for the Spring semester. Last day for non-thesis candidates to take the oral or comprehensive examination for May 2020 Commencement. The Record of Oral Exam form, or results from comprehensive exams, must be **received** in the Graduate School by this date **(do not put in campus mail)**.
	4-5	-	Study days.
	6-9;11	-	Final examinations (includes Saturday, May 9).
	12	-	Grades due for graduating students, 5:00 p.m.
	13	-	Grades due for all other students, 5:00 p.m.
	13	-	Administrative check on graduate candidates for graduation, including overall GPA requirements, foreign language proficiency requirements, and any outstanding obligations.
	15	-	Doctoral Dinner, 7:00 p.m., Cashion 506.
	15	-	Truett Seminary Commencement.
	15-16	-	Commencement, Ferrell Center.

Specific times for graduations will be determined prior to the spring semester 2020; please refer tthe commencement website at www.baylor.edu/commencement for times and other information.

GENERAL INFORMATION

Graduate Student Association

The Graduate Student Association (GSA) is an organization concerned with the intellectual and social growth of graduate students at Baylor University. The GSA sponsors activities and programs that facilitate an exchange of ideas, promotion of scholarly development, cultivation of social support systems, and dissemination of other information concerning graduate student life. All students currently enrolled for one or more semester hours of graduate course work toward an advanced degree and with a graduate GPA of 3.0 or greater are automatically members of the GSA. Students desiring further information about the GSA should review the website at www.baylor.edu/gsa or contact the Associate Dean for Student Development (254) 710-4487.

Housing

The Graduate Student Housing Community consists of two Baylor owned apartment complexes: Browning Square and The Quadrangle. Our single bedroom units at Browning Square and two bedroom units at The Quadrangle can accommodate singles, families, children, and pets. The Graduate Student Housing Community provides a quiet, adult residence with a living area suitable to the professional and family lives that are unique to graduate students. The community also serves as a place for scholars and families to gather for social, spiritual, and academic pursuits. To this end, we encourage residents to attend events that provide occasions for the community to come together and share in fellowship, friendship, and ideas.

Health Insurance

Information about the Baylor University Health Insurance Plan can be found at: www.baylor.edu/health_center under the "Insurance" quick link, or by calling (254) 710-1493. Insurance eligibility requirements are covered in the student health insurance brochure: baylor.mya-hpcare.com.

International students

All registered International Students on non-immigrant visas, taking one (1) or more credit hours and accompanying dependents are required to participate in the Baylor University Student Insurance Plan. International students are automatically enrolled in the university sponsored health insurance plan; charges are added to the student's bill each semester. Rates for the 2019-2020 academic year are listed on the website at myahpcare.com.

All J Scholars and students on campus for Academic Research or Study are required to participate in the Baylor University Student Health Insurance Plan.

Graduate students taking one (1) or more credit hours and enrolled in the master or doctoral level thesis or dissertation class may enroll in the insurance plan.

Campus Safety

The members of the Baylor Department of Public Safety (BUDPS) take great pride in providing all community members with exemplary law enforcement, emergency management, fire safety, parking and transportation and physical security services. All five BUDPS departments work diligently with the campus community to provide a safe and secure environment for students, faculty, staff and guests to work, pursue academic endeavors, and participate in leisure activities.

The largest component of BUDPS is the Baylor University Police Department, which has a staff of 62 persons, including 37 police officers, 10 dispatchers, 13 security officers, an administrative manager, and a records manager.

Available 24 hours a day, seven days a week, officers with the Baylor University Police Department respond to over 10,000 calls a year. The Department operates marked patrol vehicles on campus, a bicycle unit, a Criminal Investigation unit, and a Crime Prevention unit.

The Baylor University Police Department is the primary reporting and investigating law enforcement agency for all crimes occurring on the Baylor University campus and/or Baylor owned property. Baylor University Police Officers have the same authority as any municipal police officer or sherriff's deputy.

The Baylor University Police Department office is open Monday - Friday, 8:00 a.m. to 5:00 p.m. Police dispatchers are on duty at the office (located at the Speight Street Parking garage) to receive calls for service/assistance 24 hours a day, 7 days a week, including holidays. If you are in need of police assistance, call (254) 710-2211 or for emergency incidents call (254) 710-2222 or 2222 from any campus telephone. Baylor University Department of Public Safety also maintains eighty-one (81) emergency call boxes located across the campus and one-hundred fifty-two (152) emergency telephones, which are located in all building elevators, that offer immediate connection to the BUPD Dispatch Center, Downloading the free BU Campus Guardian cell phone security app is an additional

tool available to Baylor Universtiy faculty, staff and students to call or text crisis and/or emergency situations occurring on and around the campus to the Baylor Police Department. The security officers also offer services such as escorts and report suspicious or unacceptable behaviors.

We encourage everyone to visit the BUDPS website to learn morea bout all the services we provide at: www.baylor.edu/dps.

You can also learn about safety initiatives on campus by reading Baylor University's Annual Fire Safety & Security Report, which is published by October 1st of each year. This report is published to comply with the Jeanne Clery Act, a consumer protection law passed in 1990. This mandatory report requires all colleges and universities, who receive federal funding, to share information about crimes occurring on and around campus in efforts to not only improve campus safety, but to also inform the public of crimes occurring on and around campus.

ADMISSIONS

Admission to the Graduate School is conducted by formal application, which is available online at www.grad.baylor.edu/apply. Graduate admissions committees will consider all application materials when making admission decisions, so each piece of the application is important. In addition to an application, applicants must submit a non-refundable application fee, standardized test scores, transcripts, and letters of recommendation, which are described below in detail. Please send materials to Baylor University Graduate Admissions, One Bear Place #97264, Waco, Texas 76798-7264, or via email to GraduateAdmissions@baylor.edu. Qualified students will be admitted regardless of race, color, national or ethnic origin, gender, age, or disability.

•All applicants must submit an application and pay an application fee ($50 for all other programs, and $100 for EMBA programs).

•For U.S. citizens, Baylor Graduate School accepts unofficial transcripts and test scores for application evaluation purposes. Should Baylor choose to extend an offer of admission, you will be notified that official transcripts and test scores must be submitted before you will be admitted and allowed to register. This includes official transcripts for each college or university at which a degree (bachelor's or higher) was earned.

Transcripts:

•The Graduate School requires that all applicants have either a bachelor's degree from a regionally accredited institution in the United States or proof of equivalent training at a foreign institution of higher learning. Applicants are expected to have a record of undergraduate study and experience that is predictive of success in graduate study. A minimum grade point average or standardized test score is not specified. Records for current and former Baylor University students are already on file in the Academic Records Office, so if you are a current or former Baylor student, the Graduate School will request your Baylor transcript and copies of any other transcripts that you have previously submitted to Academic Records at Baylor University from 1988 to present. Non-Baylor transcripts submitted before 1988 will need to be requested from the university at which you took classes and mailed directly to Baylor Graduate Admissions.

Proof of Degree:

•The Graduate School must receive proof of an earned degree. If the transcript from the school at which the applicant earned a bachelor's degree, or bachelor's-equivalent, does not clearly state proof of degree completion, including the date on which that degree was conferred, the applicant must request that additional documentation, such as an official diploma certificate showing proof of degree, be mailed to the Graduate School.

Baylor University students applying to a joint bachelor's/master's degree program must provide proof of completion of their junior year (90 semester hours).

International applicants should be particularly mindful of this requirement since transcripts from non-U.S. institutions frequently lack proof of conferred degree information. Transcripts in languages other than English must be translated by an official translating agency and in some cases evaluated by (World Education Services (WES) www.wes.org), or other service provider. If the applicant is admitted before receiving a degree and final transcript, the applicant is required to have an official, final transcript documenting proof of degree sent to the Graduate School by the first day of class. Without proof of degree, the applicant will not be able to register for classes.

Test Scores:

•Standardized testing measures of academic preparedness for graduate study are an important component of the admissions process. Test scores must be less than five years old to be considered. The GRE General Test is required for admission to all programs, except those noted below. (IELTS and TOEFL test requirements are listed separately - see below.)

Required Tests:

- ***GMAT only:*** Master of Accountancy, Master of Taxation
- ***GMAT or GRE General Test:*** Master of Business Administration, Master of Science in Education in Sport Management, Master of Science in Information Systems, Master of Health Administration, Master of Science in Economics, Doctor of Philosophy in Information Systems
- ***GRE General Test or MCAT:*** Doctor of Philosophy in Kinesiology, Exercise Nutrition, and Health Promotion
- ***No tests required:*** Master of Arts in Educational Psychology, Executive Master of Business Administration, Online Master of Business Administration (unless applicant has less than four years post-graduate experience), Master of Music in Performance, Master of Music in Piano Pedagogy and Performance, Master of Music in Conducting, Master of Fine Arts in Directing, Master of Music in Church Music, Master of Music in Collaborative Piano, Master of Music in Composition, Master of Music in Music Education, Master of Science in Education in Educational Psychology, Master of Science in Nursing Leadership and Innovation (Online), Doctor of Nursing Practice in Nurse Midwifery, Doctor of Nursing Practice in Nurse Practitioner, Master of Arts in Journalism, Master of International Journalism in International Journalism, Doctor of Education in Educational Leadership

Applicants should request test agencies to send scores directly to the Graduate School. Baylor University's College Entrance Examination Board (CEEB) code is 6032. No minimum standardized test scores are required for any graduate program, but applicants may contact the graduate program director for the program to which they are applying to find out what scores are considered competitive. Scores are determined to be satisfactory in light of other admission materials submitted and special factors specific to individual disciplines as well as institutional standards monitored by the Graduate School.

Letters of Recommendation:

• Letters of recommendation should address the applicant's potential for success in the graduate program to which he or she has applied. Recommendations should come from professors, employers, or other individuals qualified to accurately assess academic or professional skills. While letters of recommendation will vary in content from discipline to discipline, letters of recommendation for doctoral applicants should address the applicant's academic accomplishments and preparedness for doctoral study.

The Graduate School does not use recommendation forms. As part of the Graduate School's online application, applicants list their recommender's email address, mailing address, Institution/Employer name, and send them an email with instructions about how to submit their letter of recommendation online. Applicants have the option to send recommenders the email in advance of the online application, which allows the recommenders more time to submit their recommendation. Applicants should let their recommenders know ahead of time that, once the applicants have submitted their name, they will receive an email from GraduateAdmissions@baylor.edu. For more details, log in to the online graduate application.

If a recommender submits his or her letter using the Baylor online recommendation tool, please do not submit a paper copy. If necessary, recommenders may submit their letters directly to the Graduate School or may provide recommendations to the applicant in a sealed envelope signed across the seal, "for submission to the Graduate School." Recommenders may also send their letter via email as a scanned image to GraduateAdmissions@baylor.edu (high quality image >=200dpi; .pdf, .jpg, .gif, .tif, .bmp), or via fax to (254) 710-3870. Letters should include full name, title, phone number, and mailing address of the recommender. Letters should also include the full name of the applicant and the degree to which the applicant is applying.

Three letters of recommendation should be submitted and should be written on institutional or business letterhead. One to three letters of recommendation are required for applications to programs in the Hankamer School of Business.

• Applicants must also submit any additional items or materials (e.g., writing sample, statement of purpose, or taped performance) required by the prospective department or degree program. Additional admission items required may be found in the Curriculum section of this catalog.

• International applicants are expected to satisfy the following admissions requirements:

A. TOEFL and IELTS: International applicants must provide a test score from one of the two tests. They must attain a minimum of 550 on the paper-based, 213 on the computer-based, or 80 on the internet-based Test of English as a Foreign Language (TOEFL), or attain a minimum overall band score of 6.5 on the International English Language Testing System (IELTS).

Applicants to doctoral programs who submit an internet-based TOEFL score are recommended to score a minimum of 20 on the speaking section of the test. **Note**: All programs in the Hankamer School of Business require a minimum TOEFL score of 600 on the paper-based test, 250 score on the computer-based version, or 100 on the internet-based version or a minimum overall band score of 7.0 on the IELTS.

The TOEFL and IELTS are not required, if the applicant has a degree conferred by a U.S.-accredited higher education institution, or if the official language of their country, or region of their country, is English. TOEFL and IELTS scores are valid for two years. After that time, the applicant must retake the test and submit the new scores to the Graduate School. For information about TOEFL, go to www.ets.org; for IELTS, go to www.ielts.org.

B. When all of the preceding requirements have been received and satisfied, and after the applicant has been accepted by a degree program, the international student must complete the Immigration Status Form (www.baylor.edu/globalengagement/index.php?id=925421) and submit financial documents as instructed by the International Student and Scholar office (ISSS). For more information on how to obtain an I-20, which is required for an F-1 (student) visa, contact the ISSS office (ISSS_Support@baylor.edu) or see the ISSS website at http://www.baylor.edu/globalengagement/?_buref=1172-91940. Baylor requires all international graduate students to carry medical insurance prior to enrollment (see Health Insurance section of this catalog).

Unexpired application materials including applications, transcripts, test scores, letters of recommendation, and resumes will be held for two years, after which point they will be destroyed. Applications submitted after stated deadlines may not be considered. Applications on which admission decisions have not been made may be deferred up to one academic year. Declined applicants must reapply. A student desiring admission to any graduate degree program must complete the application process, even if another graduate degree has been earned at Baylor University.

Applications for Transfer of Credit:

Students enrolled in a graduate program at another university who wish to take graduate course work at Baylor University for credit to be transferred to their home institutions may apply as "transfer of credit" applicants. Transfer of credit applicants must submit a Transfer of Credit application, a $25 non-refundable application fee, and a letter of good standing from the home institution's Registrar. Also, a Baylor Health Form must be completed and submitted to Baylor Health Services.

Applications for Re-enrollment:

If a student has completed a Baylor graduate degree and would like to take additional course work within the same department on a non-degree basis, a Re-enrollment paper application is required (available from the Graduate School). If it has been longer than one year since the last term of enrollment, the Baylor Health Form must be resubmitted.

Bacterial Meningitis Vaccine Requirement:

All new, entering college students in the state of Texas who are under the age of 22 are required by law to have had a bacterial meningitis vaccine within the last 5 years and at least 10 days prior to the first class day.

A student may be exempted from this requirement in two ways:

1. An affidavit or certificate signed by a physician who is duly registered and licensed to practice in the United States, stating that in the physician's opinion, the vaccination would be injurious to the health and well-being of the student; OR
2. An affidavit signed by the student saying that the student declines the vaccination for reasons of conscience, including religious belief. A conscientious exemption form from the Texas Department of State Health Services must be used. This form may be requested by going to webds.dshs.state.tx.us/immco/affidavit.shtm.

Bacterial meningitis caused by Neisseria meningitis may be a serious infection, rapidly leading to death or disfigurement. The best way to prevent infection is to be immunized against it. College students are at increased risk because of age and lifestyle issues.

IMPORTANT: All new, entering students under age 22 must comply with the above requirements at least 10 days prior to the first day of the semester/term. For the latest information about this requirement, visit the Baylor Health Services/Health Center website at www.baylor.edu/health_center. To ask questions, please call Baylor Health Services at (254) 710-1010.

The Graduate School's letter of admission constitutes the University's only official notification of the admission decision. (Admission is specific to individual graduate programs, the specific semester, and the stated terms of admission.) Admitted applicants must submit the Health Form and be cleared by Baylor Health Services before registering for classes. Attempts to enroll after the one year period will require re-application. The University reserves the right to refuse admission to any applicant whose previous academic record is deemed unsatisfactory.

Additional Considerations

Deferments:

• An admitted applicant may defer his or her application up to one academic year with written permission from the graduate program. Deferral of an application does not guarantee admission in a future term.

Prerequisites:

• Applicants will be expected to complete all undergraduate prerequisites in both the major and minor fields in which graduate study will be pursued. The determination of appropriate prerequisites is made by each program's graduate program director and/or the chairperson of the department in which the graduate program is housed. Students otherwise eligible for unconditional admission and who require no more than six semester hours of prerequisite course work may, with the permission of the graduate program to which the student applies, concurrently pursue both graduate study and prerequisite course work in the first semester. The total course load, however, may not exceed fifteen semester hours.

Qualifications:

• The Graduate School recognizes the breadth of talents and aptitudes that are required to successfully complete a given graduate program and to demonstrate exceptional proficiency under gainful employment. With this in mind, consideration for alternative valid and reliable standardized measures required for admission will be made by the Graduate School where appropriate college/school administrative endorsement has been received.

• A student may be admitted on probation for a total of nine semester hours of graduate course work, contingent upon both the recommendation of the graduate program director and the approval of the Graduate School. Students on probation cannot receive university funding for either stipend or tuition. If the student is unable to maintain the overall GPA requirement of 3.0 at the conclusion of the nine hours, the student will be dismissed from the Graduate School.

• If evidence of sufficient qualifications for admission is inconclusive, a student may be admitted on probation for a total of nine semester hours of graduate course work, contingent upon both the recommendation of the graduate program director and the approval of the Graduate School. Students on probation cannot receive university funding for either stipend or tuition. If the student is unable to maintain the overall GPA requirement of 3.0 at the conclusion of the nine hours, the student will be dismissed from the Graduate School.

Admission to Candidacy:

• Admission to a graduate program does not automatically guarantee a student's candidacy for a graduate degree. See the section in this catalog entitled Admission to Candidacy. Any degree program may require its master's students to pass a qualifying examination before program completion. All doctoral degree candidates must take a preliminary examination before admission to candidacy.

Stay Informed:

• It is the student's responsibility to become informed and to observe all regulations and procedures concerning degree completion required by the graduate program to which he/she is admitted. This includes attention to all internal deadlines (degree completion, registration, graduation, etc.), as well as the use of appropriate dissertation/thesis guidelines, and satisfying registration throughout degree completion and financial settlement procedures.

STUDENT FINANCIAL AID

The costs of tuition, fees, room, and meals at Baylor are among the most economical of any major private university in the nation. Baylor represents an affordable, yet superior, private education guided by Christian influences and ideals.

The Student Financial Aid Office provides a program that includes loans and part-time campus employment designed to help eligible students meet expenses while enrolled at Baylor University.

Please visit www.baylor.edu/sfs for pertinent information regarding student employment and loans.

Financial Aid Applications

If a student requires need-based financial aid, the student should complete the Free Application for Federal Student Aid (FAFSA). This application should be completed after October 1, but preferably before February 1 for priority consideration for the upcoming academic year. The FAFSA should be completed in sufficient time to allow Baylor to receive the results no later than May 1, so that students will be notified of eligibility before invoices for fall charges are mailed. Baylor normally receives results of the FAFSA from the federal processor within three to five business days from the date you file the form electronically. The deadline for completion of the aid application process is April 20 of the spring semester (or November 17 if attending only in the fall.) Applicants who do not have all steps (including verification if selected) completed by these dates will not be awarded aid.

Students interested in pursuing assistance for the summer sessions will be considered automatically once they have filed the FAFSA for the previous academic year and pre-registered for classes.

To be eligible for financial aid, students must be making satisfactory academic progress as defined by Baylor University. The Statement of Satisfactory Academic Progress is available on the web at www.baylor.edu/sfs/sap. In addition, some programs may have specific requirements above these minimum standards.

Students who consider dropping hours should contact the Student Financial Aid Office prior to dropping the hours to determine the effect on scholarship and financial aid eligibility. A reduction in hours may result in an adjustment to the aid package and may also affect satisfactory academic progress. It is the responsibility of the student to notify this office of any reduction in hours.

Some students may receive financial aid from several sources, which may include part-time employment, and/or loans. Because many financial aid programs are funded by the federal and state government, the Student Financial Aid Office must abide by established laws and guidelines when processing a student's application.

Complete information on the various types of assistance is available at www.baylor.edu/sfs.

FINANCIAL COSTS

Although the exact cost of attending Baylor University will vary according to personal habits, tastes, and financial resources, there are some fees that all students pay. For an estimate of the 2019-20 graduate expenses for one semester including tuition, fees, room, and meals, please visit www.baylor.edu/sfs/gradcost.

For financial aid purposes, the Cost of Attendance (COA) is an estimate of the total cost to attend Baylor University. It not only includes direct costs as outlined above, but also indirect costs. Direct costs are those billed by Baylor, such as tuition, fees, and on-campus room and meals for students who live on campus. Indirect costs are books, supplies, transportation, personal expenses. To see estimates that include these and other costs, please visit www.baylor.edu/sfs/index.php?id=946394.

Tuition

Regular tuition, per semester hour $1,785.00

A graduate student studying with one or more faculty members and using the resources of the campus is required to register for at least one semester hour of graduate credit. Students must be registered for at least one semester hour of graduate credit during the semester of intended graduation.

Fees

Administrative fee, per term (certain programs only)	$100.00
Application fee for:	
All graduate programs	50.00
Executive MBA students	100.00
Application fee for transfer of credit	25.00

Applications will not be processed without this fee. This fee will not be waived. (Application fees subject to change).

Applied Music fee, per semester for	
one 30-minute lesson per week	339.00
Audit fee, per course	339.00
Change-of-schedule fee (changes made at student's request after 7th day of class fall/spring or after 3rd day of class in summer)	40.00
Commencement charges	
Master's cap/gown/hood, purchase through bookstore, no return	129.90
*Doctoral cap/gown/hood, rental, return required	73.90*
*Doctoral cap/gown/hood, purchase, no return, includes shipping	1,004.81*
Duplicate diploma to replace lost original (special order through Office of Registrar, Suite 380)	25.00

*Handled in Graduate School Office

General Student fee (figured on a twelve-hour threshold, although full-time status for graduate students is nine semester hours):	
For students taking twelve semester hours or more, per semester	2,261.00
Fewer than twelve semester hours, per semester hour	188.00
Graduate Student charges/fees*	
Copyrighting of dissertation (optional)	55.00
Copyrighting of thesis (optional)	55.00
*Fees subject to change	
Identification card replacement fee	20.00
Installment plan fee (unless receiving Graduate stipend)	60.00
Summer installment plan fee (unless receiving stipend)	24.00
Laboratory/Course fee, per course ($50.00 minimum, charges vary)	50.00
Late Payment fees	
After due date	100.00
Summer term	50.00
Late registration fee	100.00
Parking Permit fees	360.00

Rooms and Housing

Charges are per person, per semester	
Single Room	$4,635.00
Single Room/Suite with Shared Bathroom	$4,700.00
Single Room/Suite with Private Bathroom	$5,400.00
Double Room	$3,575.00
Double Room/Suite with Shared Bathroom	$4,000.00
Double Room/Suite with Private Bathroom	$4,225.00
Triple Room	$3,325.00
Triple Room/Suite with Shared Bathroom	$3,500.00
Apartment Single Gold	$5,550.00
Apartment Single Green	$4,580.00
Apartment Double Gold	$4,325.00
Apartment UP Single	$3,750.00
Apartment UP Gold Single	$5,000.00
Expanded Occupancy	$3,200.00

For more informaiton on rooms and housing visit www.baylor.edu/cll (Room types and Rates)

Meals

Residence Hall Dining:	
All Access 7 days per week plus $50 Dining Dollars	$2,920.79*
All Access 7 days per week plus $150 Dining Dollars	2,991.56*
All Access 5 days per week plus $200 Dining Dollars	2,548.62*
All Access 5 days per week plus $100 Dining Dollars	2,620.47*
The Classic–10 Meal Plan plus $150 Dining Dollars	1,923.14*
Basic–7 Meal Plan	1,408.33*
Socialite–5 Meal Plan plus $100.00 Dining Dollars	1,108.01*
Light Eater–3 Meal Plan plus $250 Dining Dollars	835.63*
Block 90 plus $125 Dining Dollars	1,113.32
Block 60 plus $225 Dining Dollars	840.94

Note: The meal-plan week begins Saturday a.m. and ends Friday p.m.
*8.25% tax included.

Estimate of Expenses per Semester

Tuition, normal course load of nine semester hours @ $1,785.00 per semester hour**	$16,065.00
Meals, per semester(7 Meal Plan) 1,408.33**	
General student fee, per hour rate of $188.00 (9 hours)	1,692.00
Laboratory/Course fee, per course varies	50.00 to 250.00
Parking Permit fee, annual	360.00

**8.25% tax included

**Students in the Communication Sciences and Disorders program and the MBA and MBA/MSIS combined programs will pay a flat tuition rate of $21,421.00 and a flat general student fee of $2,261.00 if enrolled in 12 or more hours.

Financial Settlement

A student's registration for a term is not finalized (financially settled) until all expenses are paid or acceptable payment arrangements are made and the student has confirmed his or her intent to attend for the term billed. The complete Payment of Accounts policy can be found at www.baylor.edu/student_policies/financial. For additional information about financial settlement, please visit www.baylor.edu/sfs/financialsettlement.

Students who are recipients of scholarships from religious institutions, foundations, corporations, individuals, or other organizations outside the University should complete the online **Outside Scholarship Report form at www1.baylor.edu/OSRF** for each outside scholarship so that the award can be reflected in the student's financial aid award package. Organizations should send scholarship checks to the Cashier's Office, One Bear Place #97048, Waco, TX 76798-7048. For questions about outside scholarships, please email Outside_Awards@baylor.edu.

If you have questions about tuition, fees, or financial settlement that are not covered here, visit the Student Financial Services website at www.baylor.edu/sfs, email the Cashier's Office at Cashiers_Office@baylor.edu, or call (254) 710-2311.

Payment of Accounts

By registering for classes, students agree to pay all tuition and required fees associated with their registration, as well as any other optional charges and fees, whether paying in full or utilizing the payment plan option. Students must meet all financial obligations to the University by their due dates to avoid late penalties. Failure to pay amounts owed may result in cancellation of the student's registration and/or holds being placed to prevent future registration and the issuance of an official transcript. The complete Payment of Accounts policy can be found at www.baylor.edu/sfs/paybill.

Payment Plan

A student has the option to either pay their charges in full or enroll in a payment plan. A setup fee will be assessed each term in which a student chooses to enroll. Students may pay their account in full any time during a term; however, the setup fee is non-refundable. For more information on payment plans please visit www.baylor.edu/sfs/paymentplans.

Payment Methods

Baylor University utilizes online statements and electronic payments in its efforts to provide timely financial information to students and to control costs. Student account payment options include online (using a personal checking or savings account), credit card, Flywire, wire transfer, or physical check. Payments cannot be accepted by phone. For more information on payment methods, please visit www.baylor.edu/sfs/paybill.

Returned Payments

Any payment that is rejected for payment by the paying financial institution is subject to a returned item charge of $25. Rejected payments may also result in cancellation of the student's registration and additional fees if the student is required to re-register on or after the first day of classes.

Financial Obligation

Students are individually responsible for their financial obligation to Baylor University and charges to their student account are payable when due. Upon graduation or university withdrawal, unpaid student account balances are subject to referral to a collection agency and disclosure to credit bureaus.

Right to Withhold Transcript and/or Block Registration

Baylor University may withhold the issuance of a transcript record and/or inhibit the registration of any prior or current student if he or she has certain outstanding obligations to the University. Please see the complete Transcript and Registration Hold policy at www.baylor.edu/student_policies/index.php?id=32274.

Financial Aid Priority Dates

Students must complete the Free Application for Federal Student Aid (FAFSA-www.fafsa.gov) by the following dates to receive priority and ensure the availability of funding by the time payment is due:

To receive priority for funding (some programs are limited):

Fall and Spring semesters	February 1
Spring semester only	October 1

To ensure availability of funding (and receive credit toward bill):

Fall and Spring semesters	May 1
Spring semester only	November 1

Respond promptly to requests for additional documentation/clarification received by mail or email (all emails are directed to students' Baylor email accounts). **Students who file the FAFSA after the deadline should be prepared to pay their semester bill from their own resources by the due date.** If eligible for aid, the student may be reimbursed after aid has been credited to the student account. For more information, visit the Student Financial Services website at www.baylor.edu/sfs.

CANCELLATIONS, DROPS, AND UNIVERSITY WITHDRAWALS

Fall and Spring Semesters

Most of the information in this section refers specifically to fall and spring semesters. For dates, deadlines, and other pertinent details regarding Minimester or Summer Sessions, please see the "Academic Calendar" section for the respective dates.

This section provides information about Cancellations, Drops, and University Withdrawals. Definitions of these terms include:

- Cancellation–Dropping all classes prior to the first class day or prior to financial settlement; cannot occur once the first class day is reached for a semester.
- Drop–Removing a class(es) from a student's schedule through the 50th class day. (This term does not apply when a student discontinues all classes during the semester.) Depending on the timing of this action, the outcome will either be that the class is removed from the student's transcript record or that it results in a "W" (Withdrawal) notation for the class on the transcript (see "Academic Calendar" for deadlines). A student cannot drop a class after the 50th class day during a fall/spring semester.

- University Withdrawal–Officially discontinuing all classes for which a student is registered on or after the first class day (through the 50th class day). Beginning the 1st class day of each semester, a student will not be able to withdraw from their complete class schedule online. A student cannot withdraw from the university after the 50th class day during a fall/spring semester.

Cancellations

Cancellation occurs when a student decides not to attend classes for a semester prior to the first class day for that semester.

Academic Effects–Cancelled classes do not appear on the official academic transcript.

Financial Effects–Cancellations and related refund requests must be made in writing, mailed to the Cashier's Office, One Bear Place #97048, Waco, TX 76798-7048 or via email to Cashiers_Office@baylor.edu. Cancellation requests must be received prior to the first class day for the semester or a fee for late cancellation will be charged. For cancellations, all tuition, fees, and meal plans will be refunded at 100 percent.

Dropping Classes By a Student

A student has the option to drop a class prior to or during a semester. Prior to dropping a class, a student should review "Before you Drop A Course" www.baylor.edu/b4udrop.

Academic Effects

- Through the 50th class day, drops can be processed in BearWeb. Beginning on day 13, the student must obtain Advisor approval notation to drop in BearWeb.
- A drop prior to the end of the 12th class day of the fall or spring semester results in the course being removed from the official academic transcript.
- After the 12th and through the 50th class day, a drop in one or more classes requires a professional advisor approval and results in a "W" notation on the official academic transcript. There are no drops after the 50th class day during the fall/spring semester.
- Failure to drop a class will result in the instructor posting the grade the student has earned (i.e., an "F").
- Prior to dropping a class, a student is expected to attend class regularly.
- A student dropping a nursing class for any reason will be dropped from all corequisite classes that are linked to the class from which the student is dropping.

Financial Effects

- Beginning with the 13th class day for fall and spring terms (3rd class day for summer), a Change of Course fee will be assessed for all schedule changes.
- Refunds for dropped classes (tuition and lab/course fees) during the fall and spring terms will be processed according to the following refund schedule:

Prior to the end of the 5th class day 100%
Prior to the end of the 10th class day 75%
Prior to the end of the 15th class day 50%
Prior to the end of the 20th class day 25%
After the end of the 20th class day 0%

*An extensive refund schedule for all semesters can be found at www.baylor.edu/sfs/droprefunds.

To determine how a refund is calculated, multiply the number of hours the student will drop by the applicable percentage rate above based on the day of the drop. This calculation will determine the number of hours to subtract from the number of enrolled hours. The student is financially liable for the remaining enrolled hours plus the determined percentage of dropped hours.

For example, if a student enrolled in 9 hours drops a 3 hour class prior to the 15th class day, multiply the 3 dropped hours by 50% (1.5 hours), subtract the 1.5 hours from the original 9 hours, and the student is left with 7.5 billable hours. If the student is enrolled in a graduate program that offers the flat-rate tuition plan, there will be no tuition adjustment unless the billable hours are reduced below 12 as a result of a dropped class.

Changes in the number of enrolled hours can affect financial aid eligibility. A student should contact the Financial Aid Office for information about how dropping a class might affect his or her financial aid award package.

University Withdrawal

A University Withdrawal occurs on or after the first class and following financial settlement. To withdraw officially from the University and request appropriate refunds, a student must submit a

Withdrawal Form and complete an exit interview with a designated representative from the Academic Support Programs Office in the Paul L. Foster Success Center.

For a nursing student on the Dallas campus to withdraw from the University during a semester, the student must secure clearance from the Associate Dean prior to scheduling an exit interview.

Upon confirmation by a student's instructors of persistent non-attendance, the University reserves the right to withdraw the student for that term with an effective date matching the last known date that the student attended class.

Academic Effects

- The University Withdrawal effective date is established by the date on which a student submits the mandatory University Withdrawal Form (or contacts designated staff in Academic Support Programs).
- Contact with Academic Support Programs can be initiated in person in the west basement of Sid Richardson during regular business hours, by telephone (254) 710-6791, or via email at Academic_Support@baylor.edu.
- When a student withdraws from the University, the assigned "W" is based upon the effective date of the University Withdrawal. Please see the "Academic Calendar" section for the respective dates.
- The required University Withdrawal Form and additional information is available online at www.baylor.edu/successcenter/universitywithdrawal.
- Any other procedure will lead to failure in all classes for which the student is registered. Under no circumstances does notification to instructors or dropping classes constitute an official University Withdrawal.

Financial Effects

- If the student fails to contact Academic Support Programs and simply stops attending, then the following policies apply:
    - Tuition, fees, meal plans, and other applicable charges will not be adjusted on the student's account.
    - Financial aid credits, however, may be reversed as required by federal regulations.
- Refunds of tuition, fees, or other charges are applied to any outstanding balance owed to the University.
- Any credit balance remaining after all processing is complete will be sent by direct deposit (if bank account is designated in BearWeb) or mailed to the student at his/her home address listed in BearWeb.
- Refunds of tuition and required fees (General Student Fee, Chapel Fee, Laboratory/Course Fees, Administrative Fee and Applied Music Fee) are based on the effective University Withdrawal date and are prorated on a per diem scale based on the total number of calendar days in that payment period.
- There are no refunds for University Withdrawals that occur after 60 percent of the payment period has passed. A payment period is defined as the total number of calendar days in the semester (from the published first class day through the published last day of finals) excluding the five-calendar day Thanksgiving break and the nine-calendar day spring break.
- To obtain a calendar schedule of refund percentages, please visit the Student Financial Services website at www.baylor.edu/sfs, email the Cashier's Office at Cashiers_Office@baylor.edu, or call (254) 710-2311.
- Unless specifically noted, other fees are considered non-refundable.
- Unused Dining Dollars are refunded upon University Withdrawal.
- Meal plan refunds are calculated pro rata based on the University Withdrawal effective date. An administrative charge equal to one week of the meal charge for the student's respective meal plan will be assessed.
- A student receiving scholarships or other financial aid should contact a financial aid counselor to discuss the financial implications of a University Withdrawal.
- Financial aid recipients are not eligible for a refund until all of the financial aid programs are reimbursed in accordance with federal, state, and University requirements. To obtain information about the return of financial aid funds, contact the Student Financial Aid office at (254) 710-2611 or email FinancialAid@baylor.edu. Additional contact information is available online at www.baylor.edu/sfs.
- A student residing in campus housing must contact the Campus Living & Learning office to obtain information about any applicable housing adjustments and penalties. Campus Living & Learning can be reached at Living@baylor.edu or by calling (254) 710-3642. Additional information is available online at www.baylor.edu/cll. A student must follow the proper check-out procedure outlined in the Guide to Community Living and must vacate campus housing within 48 hours of the University Withdrawal effective date.

Dropping an Audited Class

A student who drops an audited class by the fifth (5th) class day (fall/spring) is eligible for a full refund. No refund for an audited class is given after the fifth (5th) class day. Full refunds also apply to a student who drops an audited class by the third (3rd) class day for the full summer session, by the second (2nd) class day for the summer I and II, and the first (1st) class day for the Minimester. No refunds are given after the designated class drop date.

Right to Withold Transcripts and/or Block Registration

Baylor University may withold the issuance of a transcript record and/or block the registration of any current or prior student if the student has certain outstanding obligations to the University. Please see www.baylor.edu/student_policies/financial for the complete transcript and registration hold policy.

Assistantships

The University provides many students with graduate assistantships (stipend support) which are available with varying compensation levels depending upon the nature of the service and the amount of time required of the students. Information concerning assistantships may be obtained from either the chairperson or the graduate program director in the degree program of your choice. In addition to University funded assistantships, there are foundation grants that provide funds for various kinds of assistantships. Students receiving assistantships must maintain an overall grade point of 3.0 to avoid being placed on probation. Probationary status makes the student ineligible for assistantships.

Graduate Assistantships are usually awarded by the graduate programs and generally fall into the following classifications:

1. **TA1 – Teaching Assistant 1**: Graduate student Teachers of Record & Lab Assistants. A graduate student engaged in the primary duty of teaching, instructing or lecturing a class, class section, or laboratory section. This individual is the "teacher of record" for the class/section.

2. **TA2 – Teaching Assistant 2**: Graduate students assisting a faculty member with teaching a class. A graduate student substantially engaged in teaching related responsibilities. Teaching-related responsibilities can vary but must include some or all of the following: teaching, tutoring, instructing or lecturing a class, class section, or laboratory section, assisting a faculty member with teaching a class, preparing examinations, proctoring examinations, grading papers, preparing class lectures, and maintaining office hours for assistance to students. This individual is not the "teacher of record" for the class/section.

3. **RA1 – Research Assistant 1**: Graduate students performing research under an internal or external grant or contract. A graduate student engaged in research in the course of obtaining an advanced degree and the research is performed under the supervision of a faculty member in a research environment under an internal or external grant or contract.

4. **RA2 – Research Assistant 2**: Graduate students assisting faculty members with research activities (not meeting the definition of RA1 above). A graduate student substantially engaged in research activities that do not satisfy the requirements of RA1. Research activities can vary but include some or all of the following: performing data analysis, designing experiments, engaging in literature searches, co-authoring a research paper with a faculty member, and assisting a faculty member in laboratory, survey, and other research.

5. **GA – Graduate Assistant**: Graduate students working in nonacademic departments. A graduate student performing duties outside an academic department utilizing knowledge or experience beyond undergraduate academic studies.

Note: The Graduate School provides benefits to certain qualified graduate students.

These benefits include:

- **Subsidized** annual health insurance premiums for students
- **Subsidized** student parking decals **(teachers of record only)**
- **Complimentary** meal credits at residential dining facilities **(teachers of record only)**

Although the specific responsibilities will vary by department and assistantship, the number of hours required by the department in return for this assistance will typically not exceed **twenty hours per week** in order to protect graduate students from excessive commitments away from research and study. Graduate assistantship assignments should not exceed the number of hours specified by the appointment. Consultation with the supervisor, chairperson, or Graduate Dean is encouraged if a graduate student has concerns regarding unexpected, excessive, or other use of time which interferes with the student's course work.

The department should provide graduate students with sufficient facilities, equipment, and supplies to complete the duties and responsibilities of the given assistantships. The students should confer with the supervisor to establish procedure for acquiring this support. (Note: Students awarded tuition only cannot work as graduate assistants.)

Persons awarded graduate assistantships (especially Teaching Assistants) are encouraged to confer with their graduate faculty supervisor, department chairperson, and/or graduate program director concerning grading policies, office hours, and advising. Further, graduate students should review the university personnel manual for additional policies pertaining to the University's expectation of its employees in the performance of their assignments. The graduate faculty supervisor is responsible for arranging student access to these materials.

Baylor University is a member of the Council of Graduate Schools (CGS). Baylor abides by a CGS Resolution, "Resolution Regarding Graduate Scholars, Fellow, Trainees and Assistants," that concerns the conditions surrounding the acceptance of offers of certain kinds of graduate student financial assistance, namely, scholarships, fellowships, traineeships, and assistantships. The general spirit of the Resolution is that students should have an opportunity to consider more than one offer and should have until April 15 to do so, that institutions and students should be able to view acceptances in force after April 15 as binding, that everyone should know what the rules are, and that an offer by the institution and its acceptance by the student constitute an agreement which both expect to honor. The Resolution acknowledges that students, after having accepted an offer, may change their minds and withdraw that acceptance. The intent of the Resolution is to provide a uniform and widely acceptable framework for so doing, one that provides protection for both student and institution. Full text of the Resolution can be viewed at www.cgsnet.org/pdf/resolution.pdf. The April 15 date applies to fall applications submitted by the Graduate School's posted deadline.

Fellowships and Scholarships

In addition to assistantships noted above, there may be other sources of funding to support your graduate studies. The Graduate School website (www.baylor.edu/graduate) posts funding opportunities and assistantship opportunities under the "Current Students" heading.

1. **Graduate School Fellowship (Enhancement) – GSF**: Fellowship granted by the Graduate School Dean to graduate students to assist with living costs while engaged in studies at the University. Award of fellowship is based on excellent academic qualifications. No past, present, or future services are performed as a condition to receiving this fellowship.

2. **Departmental Graduate Tuition Scholarship – DGTS**: Scholarship awarded by an academic program to graduate students to cover tuition costs. Award of scholarship is based on excellent academic qualifications. No past, present, or future services are performed as a condition to receiving this scholarship.

The Vice Provost for Research maintains an extensive listing of graduate fellowships at www.baylor.edu/research/index.php?id=937053. Websites for many departments at Baylor also provide information about funding available to students majoring in those graduate programs.

Financial Aid

Financial aid programs available to graduate students include Federal Work-Study, Direct Unsubsidized Loans, Direct Grad PLUS Loans, and alternative loans through various private lenders. Apply for aid by completing the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov. Visit the website at www.baylor.edu/sfs for additional information regarding the financial aid application process.

REGISTRATION AND ENROLLMENT

Registration

Classifications

- Regular: Student is fully admitted to a graduate degree program.
- Post Baccalaureate: Any student wishing to register for graduate classes before being formally admitted to the Graduate School will need to register as a post baccalaureate student through the undergraduate Admissions Office. Only six hours of graduate level work may be taken by a post baccalaureate student. Before the student can register for a graduate course, permission must be granted by the Graduate School. After the student has been admitted to the Graduate School, he/she may then petition to transfer the six hours of graduate level work taken as a post baccalaureate student into their graduate program. This applies to 4000-level courses carrying graduate credit as well as 5000-level or 6000-level courses. A 4000-level course requires a statement from the instructor stating the student completed the extra requirements to receive graduate credit for the course.

- Transfer of Credit: Any student in Good Standing in a graduate program at another university wishing to take a graduate-level course at Baylor and transfer the credits to their home university. Students must present a Letter of Good Standing from their home institution prior to each semester of registration at Baylor.

Procedures

1. Registration information is located at www.baylor.edu/registrar.
2. Students who do not pre-register should check with their department for registration information prior to the first day of classes.
3. All students are expected to register for a minimum of one semester hour of graduate-level coursework in each semester. This practice is institutionally referred to as "continuous registration."
4. All students must be registered for at least one semester hour of graduate credit during the semester of graduation.
5. All students should refer to the official University and Graduate School Calendars for dates set for the semester of graduation. Dissertation and thesis students should be especially mindful of final deadlines for submission and completion of degree requirements. Dissertation and thesis services are available from the first day of classes through the last day of classes during each semester.

It is the graduate student's responsibility to honor all conditions and procedures associated with timely registration. Advisement should be limited to the appropriate graduate program director and authorized faculty. Advisement is expected to be consistent with policies and procedures as stated in the Graduate Catalog.

ENROLLMENT

Classifications

- **Graduate**: Any person holding a bachelor's degree who has been admitted to the Graduate School, who has enrolled in a graduate program, and who is taking course work to be credited toward a graduate degree. Graduate students are expected to maintain continuous registration, including the semester in which the degree is conferred. (See Items 3 and 4 in the preceding section.)
- **Graduate Non-Degree**: Any person holding a bachelor's degree who has been admitted to the Graduate School, but not wishing to pursue a degree. The University will produce a graduate transcript reflecting the graduate-level course work taken. Graduate non-degree students must satisfy the same admission standards as fully admitted students.
- **Transfer of Credit**: Any student in Good Standing in a graduate program at another university wishing to take a graduate-level course at Baylor and transfer the credits to their home university.
- **Post baccalaureate**: Any person holding a bachelor's degree that has not been admitted to Graduate School who is taking course work through the undergraduate Admissions Office. Before the student can register for a graduate course, permission must be granted by the Graduate School. Please contact the Graduate School at (254) 710-4610 to obtain the appropriate forms to register for classes. An undergraduate transcript will be generated for the student to reflect the post-baccalaureate coursework. After the student has been admitted to the Graduate School, he/she may then petition to transfer the 6 hours of graduate level work taken as a post-baccalaureate student into their graduate program.
- **Undergraduate Senior**: An undergraduate senior may enroll in graduate course work (including 5000-level courses and 4000-level courses approved for graduate credit for which the student intends to apply either toward graduate credit or toward undergraduate degree requirements), subject to the following conditions:
  1. The student must have grade point averages, both overall and in the major field, of at least 3.0.
  2. The student may enroll in no more than one graduate course in one semester.
  3. The course load (combined undergraduate and graduate course work) may not exceed fifteen semester hours in one semester.
  4. The student must have taken and successfully completed all prerequisites for the graduate course(s).

5. The student may include no more than six semester hours of graduate credit within the total semester hours for the undergraduate degree.
6. The student will assume the responsibilities of a graduate student in a graduate course.

Exceptions to rules 2 and 5 above may be granted for students in joint-degree programs which integrate undergraduate and graduate degree requirements, resulting in simultaneous award of both bachelor's and master's degrees. In such cases, the student may enroll in no more than two graduate courses in one semester, and the student may include no more than twelve semester hours of graduate credit within the total semester hours for the undergraduate degree. In this context, the full summer is considered as one semester such that an undergraduate senior may take a maximum of two graduate courses during the combined summer sessions.

Permission to take graduate course work requires the student to file a petition to be approved by the professor(s) of the course(s), the dean of the college of the student's undergraduate major, and the Director of the Graduate School Office. Accompanying the petition must be a copy of the student's transcript so that the undergraduate Dean's office can calculate grade point averages. On the petition, the student indicates whether the graduate course work is to apply toward undergraduate degree requirements. Should the student later be admitted into a graduate program for which the course work is relevant, the student, if they did not count the work toward the undergraduate degree, may petition the Graduate School to transfer up to six hours into their graduate program. The course work may not be counted both ways unless it is part of a joint degree program and has already been approved as part of the curriculum. Final approval of the petition must be obtained before the student can register for any graduate course work.

Full-Time Status

A graduate student is considered full time taking nine credit hours.

Exceptions to the minimum credit hours for a graduate student may be made when:

1. A student is registered for internship, practicum, or cooperative education activities that require full-time work and will count toward completion of the student's degree program (upon the request of the Dean of the Graduate School).
2. A student is completing a thesis or dissertation and is enrolled in a class specifically identified as being for this purpose.
3. A student is conducting prospectus research prior to admission to candidacy and is enrolled in a class specifically identified as being for this purpose.

The above exceptions may not apply to a student's eligibility for financial aid (e.g. scholarships, grants, loans, etc.) A student who has questions concerning the enrollment requirements for his or her financial aid should contact the financial aid office and confer with a financial aid counselor.

Information on Change of Degree

The Change of Degree form is for current students who wish to change degree programs. The form may be obtained from the Director of the Graduate School Office. The signature of the Graduate Program Director for the current and prospective degree programs are required.

Course Numbering System

The numbers applied to each course indicate level, semester hours of credit, and sequence. Selected courses numbered 4000-4V99 are open to both advanced undergraduates and graduate students. Graduate credit will not be conferred for courses numbered below 4000, or for 4000-level courses which do not appear in the Graduate Catalog. Courses numbered 5000 and above are limited to graduate students. Only doctoral candidates will be permitted to register for 6000-level courses. The first digit in the number indicates the level. The second digit in the number indicates the value in graduate credit hours. Thus, "3" as a second digit indicates three credit hours. Some courses may be taken for a varying number of credits, typically from one to three semester hours. In such cases, instead of a digit for the second place in the course number, the letter "V" is used, and the varying amount of credit is indicated at the right of the course title. The last two digits are reserved for departmental indication of preferred sequence of courses.

Course Load

Nine semester hours constitute official full-time status for a graduate student, although some University fees are figured on a threshold of twelve semester hours. The maximum number of semester hours for which a master's student may register in a given semester is sixteen. The maximum course load for doctoral students is twelve semester hours; practicum credit for Psy.D. students is not included in the twelve hour limit. No more than eight semester hours may be taken in either of the two summer sessions. Graduate students who are graduate assistants or laboratory instructors are strongly discouraged from taking the maximum allowable number of graduate credits.

Grading System

Grades for graduate students are A (4.00), A- (3.67), B+ (3.33), B (3.00), B- (2.67), C+ (2.33), C (2.00), C- (1.67), D+ (1.33), D (1.00), D- (.067), and F (0.0). If a grade of C-, D+, D, D-, or F is made in a required course, the student must repeat the same course at Baylor and make a grade of C or better to meet the degree requirements for graduation. In addition, a C-, D+, D, D-, or F will not apply toward the total number of hours for program completion, but will calculate in the student's grade point average. Graduate courses may be repeated according to the following conditions:

A. A course may only be repeated one time
B. A course in which a student previously received a B-, C+, or C may be repeated when a petition is approved by the Graduate Program Director and Graduate School.
C. A course in which a student previously received a C-, D+, D, D-, or F may be repeated without requiring a petition.
D. No more than three courses may be repeated within a degree program.

Note: Graduate Courses may not be repeated if a grade of B or higher was previously received.

The grade point average (GPA) is calculated by totaling the number of grade points earned and dividing by the number of credits applied toward the GPA. The resulting grade point average is truncated following the second decimal (e.g., 1.99672=1.99). The university does not round the GPA. This method of calculation is used for all academic purposes such as academic standing, graduation, and scholarship eligibility.

The grade of "I," incomplete, may be given only when the completed portion of the course work is of passing quality. It is the student's responsibility to complete the course requirements and to see that the incomplete grade is removed from the record. A student may not graduate with an "I" incomplete on their transcript. The incomplete grade will change to an "F" when the student reaches their time limit, is certified to graduate, or withdraws from the program. The only exception is dissertation (6V99) or thesis (5V99).

Students may not register in a course other than 5V99, 6V99, or scientific research for which they may already carry a grade of incomplete. Students who receive one or more incomplete grades during a semester may have their schedule for the following semester reduced by the number of hours of "incomplete" received. In certain practicum-oriented and internship-based courses in the major or minor field, a grade of "Pass," "Fail," "Credit," or "Non-credit" may be given, provided the grading system for the courses has been approved by the Graduate School, and has been coordinated with the Registration and Academic Records Office prior to course offering. Students registering for dissertation (6V99) or thesis (5V99) will receive a grade "Credit" or "Non-credit" rather than a letter grade. A student may be given an "I" in dissertation (6V99) or thesis (5V99) until the work is completed and successfully defended.

Change of Grade Policy

Changes to grades may be initiated by the instructor of the class and must be approved by the department chair and the dean of the Graduate School (with notification to the dean of the school in which the class was offered). Changes to grades may be initiated by an instructor when the original grade resulted from an error, the original grade was an Incomplete, or in cases where the student's performance was affected by extenuating circumstances. Changes resulting from an error or extenuating circumstances may only be made within one calendar year of the original grade assignment and may not occur once a degree has been conferred or the student's time limit has expired. Further, changes to Incomplete grades may be made only in compliance with Graduate School policies on Incompletes (see policies below).

Beyond changes to grades for reasons stated above, changes may occur when initiated by the Provost based on the finding of a violation of academic integrity or when a grade is successfully appealed through the appropriate process. The one-year time limit does not apply to these changes.

Policy for changing incompletes:

1)..Baylor Policy requires that incompletes be removed from the student's transcript when the student graduates, withdraws from the program, or their time limit has expired, with the exception of dissertation (6V99) or thesis (5V99) hours. The Graduate School will administratively initiate the change of grade form to change the incomplete to an "F" if the instructor has not already submitted the change.

2)..The instructor of record for the course may require the student to complete the course and remove the incomplete at any time prior to the Graduate School deadline as stated above. The instructor may not exceed the Graduate School deadline unless a formal extension to the student's time limit has been petitioned and approved by both the Graduate Program Director in the student's department and the Graduate School.

3)..A student may be given an "I" in dissertation (6V99) and thesis (5V99) until the work is completed and successfully defended. Once completed and defended, the instructor of record will submit a change of grade changing the "I" to "CR" for semesters in which the student registered for dissertation (6V99) or thesis (5V99).

Audit

A student may audit a course with the written permission of the Graduate School. The fee for auditing a course is one-fourth of the current tuition rate of one semester hour. Tuition funds may not be used to cover classes that are being audited. Only lecture courses may be audited. Audit enrollment is subject to the instructor's willingness to have nonparticipating students. Students who drop an audited course by the fifth class for the fall or spring semester are eligible for a full refund. Full refunds also apply to students who drop an audited course by the third class day for the full summer session, by the second class day for Summer I and II, and by the first class day for the Minimester. No refunds are given after the designated drop date.

Audited courses may not exclude a student seeking credit, may not be repeated at a later date for credit, may not be changed in status after the registration period, and are not considered part of the course load. The course will not count toward degree requirements.

Probation

A student who is admitted to Graduate School on probation must maintain a "B" (3.0) overall grade point average during the first nine semester hours of graduate course work. Failure to do so will result in notification of dismissal by the Graduate School. The Graduate School is not required to hear student appeals of this decision. Graduate Program Directors who determine that there may be extenuating circumstances should direct letters on the student's behalf to the Dean of the Graduate School. Students are automatically removed from probation upon completion of the first nine semester hours of graduate-level course work if an overall 3.0 grade point average is attained.

Any fully admitted student whose overall GPA falls below a "B" (3.0) average during any semester will be placed on probation for the next nine semester hours of graduate course work. If, after completion of the ninth semester-hour credit, the student's overall grade point average is still below 3.0, the student will receive notification of suspension from the Graduate School. Students receiving assistantships must maintain an overall grade point average of 3.0 to avoid being placed on probation. Probationary status prevents the student from academic assistantship/fellowship or enhancement award eligibility.

Suspension

Individuals who do not attain the required minimum grade point average of 3.0 during the probationary period will be notified in writing by the Graduate School of their suspension.

The student will be precluded from all registration and enrollment privileges at that time. Should the student's circumstances be so unusual as to warrant special consideration, the dismissal letter will include directions and provisions for engaging in an appeals process.

Curriculum Changes

Any faculty member can propose a new degree, major, minor, concentration, or new course (or changes to existing courses). The first step is a discussion between the faculty member and the appropriate department chair. The most successful proposals have strong support at the department and dean's office levels. Establishing support across disciplinary and school/college boundaries is beneficial. Departments should follow the curriculum guidelines, as indicated on the Provost's website (www.baylor.edu/provost), for submtting requested curriculum changes.

Any new degree or major requires approval by the Graduate Curriculum Committee, Graduate Dean, Graduate Council, Vice Provost for Academic Affairs and Policy, President, and Board of Regents (to be included on the agenda, requests for new degrees must be submitted at least 6-8 weeks in advance of Board meetings).

Any new minor, specialization, or concentration requires approval by the Graduate Curriculum Committee, Graduate Dean, and Vice Provost for Academic Affairs and Policy.

To make determinations on how much academic credit should be offered for new courses (or changes to existing courses), the individual faculty members and curriculum committees consider the following factors: 1) the subject matter covered in the course, 2) the number (and nature) of required assignments, 3) the number of contact hours each week, 4) the amount and level of work required, and 5) the structure/content of similar courses currently being offered within the department and throughout the university.

Once approved, changes are entered into the university's academic records system and can be offered during the next most appropriate semester.

General Expectation of Baylor Students

Baylor University is governed by a predominantly Baptist Board of Regents and is operated within the Christian-oriented aims and ideals of Baptists. The University is affiliated with the Baptist General Convention of Texas, a cooperative association of autonomous Texas Baptist churches. We expect that each Baylor student will conduct himself or herself in accordance with Christian principles as commonly perceived by Texas Baptists. Personal misconduct either on or off the campus by anyone connected with Baylor detracts from the Christian witness Baylor strives to present to the world and hinders full accomplishment of the mission of the University.

Under the Student Conduct Code, all Baylor students are expected to obey the laws of the United States, the State of Texas, and municipalities, or, if studying abroad, the laws of other countries. Students are also expected to obey the rules, regulations, and policies established by Baylor University including those found in the Honor Code. These expectations apply to all persons taking courses at or through the University, either full-time or part-time, pursuing undergraduate, graduate, or professional studies. Persons who are not officially enrolled for a particular term at the University but who have a continuing relationship with the University or who have been notified of their acceptance for admission will also be held to these standards.

Each student is responsible for learning about and adhering to the Baylor University Student Conduct Code and Honor Code. The Division of Student Life attempts to ensure that the Student Conduct Code and Honor Code are communicated to all students through various means. However, the student is responsible to the University for his or her conduct that violates University policies. The Student Conduct Code and Honor Code apply from the time that a person is notified of his or her acceptance for admission to the University through his or her receipt of a diploma or other credential. Moreover, should a student witness a violation of University policies on the part of other students, the student is responsible for reporting that violation to an appropriate University official (e.g., Judicial Affairs administrators, Office of Academic Integrity administrator, Campus Living and Learning staff, Baylor University Police Department, etc.).

Professional Conduct

In keeping with Baylor University's commitment to mutual respect and personal integrity, the Graduate School expects that all students will conduct themselves in a manner fitting their professional identity. This includes personal conduct towards faculty, staff, peers, and colleagues both on and off campus. Failure to display professional conduct may result in disciplinary action, including dismissal from the graduate program.

Email Communication to Students

Baylor University may send official University correspondance to a student via email, using the email address assigned by Baylor. Each Baylor student is personally responsible for checking his or her email on a regular and recurring basis for receipt of official University correspondance.

Change Of Address and Telephone Number

It is frequently a matter of great importance to students for University officials to be able to locate them quickly. For this reason, students are asked to file a notice of change of student local or student home address and telephone number with the University promptly, and not later than ten days thereafter in any case. Address changes may be made through BearWeb. For assistance, contact the Office of the Registrar at registrar@baylor.edu or (254) 710-1181. Failure to receive University notices because of an incorrect address provided by the student will not relieve the student of responsibility for responding to the notice. Nursing students enrolled on the Dallas campus are requested to report a change of address in the Office for Student Services on the first floor of the Harry W. Bass Memorial Educational Center.

Students Called for Active Military Duty

An enrolled student who withdraws as a result of being called into active military duty (reserves or National Guard) may choose to:

1. receive a refund of tuition and fees paid toward the current term, or
2. be given full credit of tuition and fees paid toward the current term to apply toward future term's charges for enrollment, or
3. if late enough in the term, request an "incomplete" so that the remainder of the work could be completed at a later date and receive no refund or credit of tuition and fees.

If the student has met the academic requirements for the term, a grade will be assigned and no tuition refund or credit will be granted.

Board charges are refunded on a pro rata basis on the date of the student's withdrawal. Room charges are refunded on a pro rata basis based on the date a student officially vacates on-campus housing.

Students having federal/state financial aid will be withdrawn according to the published withdrawal policy. Any refund or credit for a student being called into active military duty who has such financial aid will be considered on a case-by-case basis.

DEGREES OFFERED

Baylor University offers graduate degrees in five cities in Texas and in West Point, New York, and Tacoma, Washington. The Waco campus offers twenty-nine Doctor of Philosophy degrees, five doctoral-level professional degrees, twenty-one master's-level professional degrees, nineteen Master of Arts degrees, fourteen Master of Science degrees, and twenty-seven joint degrees. Dallas, Texas is the site for the Master of Science in Nursing degree and the Doctor of Nursing Practice. The United States Army Academy of Health Sciences, Army Medical Department Center and School, in San Antonio is the site for two master's degrees, a joint degree, and five doctoral degrees. Ft. Bliss, William Beaumont Army Medical Center, in El Paso, Texas is the site of one doctoral degree. Darnall Army Medical Center in Killeen, Texas is the site of one doctoral degree. The Madigan Army Medical Center in Tacoma, Washington, offers one doctoral degree. The United States Military Academy in West Point, New York, offers one doctoral degree.

The Graduate School encourages faculty to invest in the lives of gifted graduate students, equipping them to pass on a vision of inquiry, scholarship, teaching, and service. Students participate in classroom tutorial, collegial modes of learning, and in systematic independent inquiry, in a setting that allows them to see scholars at work as an important means of learning the scholar's art.

In order to ensure the appropriate quality of graduate courses, the Graduate Curriculum Committee, before it approves a proposal for a new course, must determine whether the course requires a level of independent learning and academic content above what is expected at the undergraduate level and is appropriate for graduate study.

Students may not pursue two or more graduate degrees concurrently unless the degrees are part of a University approved "Joint Degree" program. In "Joint Degree" programs, since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree.

Students will normally graduate under the degree requirements published in the Graduate Catalog that is in effect when the student matriculates for graduate study at Baylor University. Realizing that degree requirements might change from year to year, a student might opt to graduate under requirements in effect in a subsequent year while the student is enrolled in graduate study. To make such a change, the student must initiate a petition in which the student requests to graduate under a specified later set of degree requirements. This petition would need to be approved by the student's mentor and the director of that graduate program, then submitted to the Graduate School for final approval.

Certified Commencement

Baylor commencement ceremonies are certified. That means that students who walk in the ceremony have completed all degree requirements and receive their diploma as they cross the stage. Students are not allowed to walk at commencement unless they have met all degree requirements. The University makes no exceptions to this rule. Students who do not meet all degree requirements must complete the appropriate work in a future semester, after which they may participate in the ceremony.

Posthumously Awarded Degrees

A student in his/her final year who has successfully completed 75% of the degree requirement, who is enrolled in good standing, making satisfactory academic progress, meeting all minimum grade point average requirements for his/her degree program, and dies before completing his/her degree may be awarded the degree posthumously upon the recommendation of the Graduate School Dean and with the approval of the Provost.

WACO, TEXAS

Doctor of Philosophy Degree Programs

- Biology
- Biomedical Studies
- Chemistry
- Church Music
- Computer Science
- Curriculum and Teaching
- Ecological, Earth and
- Environmental Sciences
- Educational Psychology
- Electrical and Computer Engineering
- English
- Entrepreneurship
- Environmental Science
- Geology
- Health Services Research
- Higher Education Studies and Leadership
- History
- Information Systems
- Kinesiology, Exercise Nutrition, and Health Promotion
- Mathematics
- Mechanical Engineering
- Philosophy
- Physics
- Political Science
- Preaching
- Psychology
- Religion
- Social Work
- Sociology
- Statistics

Professional Doctoral Degrees

- Doctor of Education (Curriculum and Instruction, Educational Leadership (K-12 Educational Leadership), Higher Education Studies and Leadership, and Learning and Organizational Change)
- Doctor of Musical Arts
- Doctor of Occupational Therapy
- Doctor of Physical Therapy
- Doctor of Psychology

Professional Degrees

- Master of Accountancy
- Master of Arts in Teaching
- Master of Athletic Training
- Master of Business Administration
- Master of Engineering
- Master of Environmental Studies
- Master of Fine Arts
- Master of International Journalism
- Master of Music
- Master of Public Health
- Master of Public Policy and Administration
- Master of Science in Biomedical Engineering
- Master of Science in Clinical Psychology*
- Master of Science in Economics
- Master of Science in Education**
- Master of Science in Electrical and Computer Engineering
- Master of Science in Information Systems
- Master of Science in Limnology
- Master of Science in Mechanical Engineering
- Master of Taxation
- Education Specialist

* See special conditions in Psychology section.

** See School of Education for majors.

Master of Arts Degree Programs

- American Studies
- Biology
- Classics
- Communication
- Curriculum & Instruction
- Educational Psychology
- English
- History
- International Relations
- Journalism
- Museum Studies
- Philosophy
- Physics
- Political Science
- Psychology*
- Religion
- Sociology
- Spanish
- Theatre Arts

*See special conditions in Psychology section.

Note: A student may complete minors in the Department of Art and the program of Latin American Studies.

Master of Science Degree Programs

- Biology
- Biomedical Studies
- Chemistry
- Communication Sciences and Disorders
- Computer Science
- Environmental Biology
- Environmental Science
- Exercise Physiology
- Geology
- Mathematics
- Nutrition Sciences
- Physics
- Sport Pedagogy
- Statistics

Joint Degrees

- Master of Arts (Curriculm and Instruction)/Master of Divinity
- Master of Business Administration/Juris Doctor
- Master of Business Administration/Master of Divinity
- Master of Business Administration/Master of Engineering
- Master of Business Administration/Master of Science in Information Systems
- Master of Business Administration/Master of Social Work
- Master of Music (Church Music)/Master of Divinity
- Master of Public Policy and Administration/Juris Doctor
- Master of Science in Education (Curriculum and Instruction)/Master of Divinity
- Master of Taxation/Juris Doctor
- Bachelor of Arts/Master of Arts (Classics)
- Bachelor of Arts/Master of Arts (Communication)
- Bachelor of Business Administration/Master of Accountancy
- Bachelor of Business Administration/Master of Science in Economics
- Bachelor of Business Administration/Master of Taxation
- Bachelor of Science in Education/Master of Arts in Teaching
- Bachelor of Science in Education/Master of Athletic Training
- Bachelor of Science in Education/Master of Science (Sport Pedagogy)
- Bachelor of Science in Electrical and Computer Engineering/Master of Science in Biomedical Engineering
- Bachelor of Science in Electrical and Computer Engineering/Master of Science in Electrical and Computer Engineering
- Bachelor of Science in Electrical and Computer Engineering/Master of Engineering
- Bachelor of Science in Engineering/Master of Science in Biomedical Engineering
- Bachelor of Science in Engineering/Master of Engineering
- Bachelor of Science in Mechanical Engineering/Master of Science in Biomedical Engineering
- Bachelor of Science in Mechanical Engineering/Master of Science in Mechanical Engineering
- Bachelor of Science in Mechanical Engineering/Master of Engineering
- Bachelor of Science in Public Health/Master of Public Health

Dallas, Texas

Baylor University Louise Herrington School of Nursing

- Master of Science in Nursing
- Doctor of Nursing Practice

Academy of Health Sciences, U.S. Army Medical Department Center and School*

San Antonio, Texas-- Fort Sam Houston, Brooke Army Medical Center

- Master of Health Administration
- Master of Health Administration/Master of Business Administration (joint degree)
- Master of Science (Nutrition)
- Doctor of Nursing Practice (Anesthesia Nursing)
- Doctor of Physical Therapy
- Doctor of Science in Occupational Therapy
- Doctor of Science in Physical Therapy
- Doctor of Science in Physician Assistant Studies (Emergency Medicine, Clinical Orthopaedics, General Surgery)

El Paso, Texas--Fort Bliss, William Beaumont Army Medical Center

- Doctor of Science in Physician Assistant Studies (Emergency Medicine, Clinical Orthopaedics)

Killeen, Texas--Fort Hood, Darnall Army Medical Center

- Doctor of Science in Physician Assistant Studies (Emergency Medicine)

Tacoma, Washington--Fort Lewis, Madigan Army Medical Center

- Doctor of Science in Physician Assistant Studies (Emergency Medicine, Clinical Orthopaedics)

West Point, New York--United States Military Academy, Keller Army Community Hospital

- Doctor of Science in Physical Therapy

*These programs are for specifically targeted federal personnel.

DOCTORAL DEGREES
GENERAL DEGREE REQUIREMENTS

The following general requirements apply to all doctoral programs administered by the Graduate School.

Transfer Credit

The majority of all course work toward completion of any degree must be taken at Baylor. For doctoral degrees, the accepted number of transfer credits will be determined by the individual academic departments within the following general guidelines:

- course work must be from an accredited university and appear on a graduate transcript, and
- course work must have been taken within five years immediately prior to matriculation, and
- course work must carry a grade of "B" or better (cannot accept P/F, CR/NC or certificates of completion), and
- none of the transfer course work consists of extension, workshop courses, or master's thesis or doctoral dissertation credits, and
- may not use courses to satisfy requirements toward more than one master's degree at Baylor unless the two degrees are part of a joint degree program.

Time Limitation

The maximum time limit for the doctoral degree is eight years from the time the student first matriculates into the doctoral program. After this time the student may request a one-year extension. Once a student's time limit expires, any incompletes with the exception of dissertation or thesis hours will change to an "F". Any student wishing to return to complete their degree after a one year absence, must reapply for admission to Graduate School. If admitted the student would enter under the current catalog and the appropriate course work for degree completion may be revalidated or not, according to the policy of the individual program in consultation with the Graduate School. Coursework where incompletes have been changed to an "F" may not count in the new program.

Graduation Eligibility

To qualify for a doctoral degree, students must have a minimum overall grade point average of 3.0 and must have satisfied all course work, practica, dissertation, or other academic/professional efforts associated with the degree sought. No member of the Baylor University faculty above the rank of Lecturer may be admitted to candidacy for a graduate degree at the University. Candidates are not allowed to continue in the doctoral program after ten years has elapsed from the semester of enrollment. Students may not use a course to meet more than one degree requirement or count toward two master's degrees unless the two degrees are part of a joint degree program.

Filing for Graduation

Students file for graduation on the Graduate School website (www.baylor.edu/graduate/file) early in the semester in which the degree is expected to be conferred (see Academic Calendar in this catalog). Students pursuing a joint degree program must file for graduation in both programs or schools.

Processing of diplomas takes four to eight weeks. Because of the processing time, students who file late will not be guaranteed a diploma at the commencement ceremony. The degree is conferred at the first commencement ceremony following program completion. Ceremonies are held in August, December, and May (see Academic Calendar in this catalog). Students must be registered for at least one semester hour of graduate credit during the semester of graduation.

Dissertation Examining Committee Composition

The dissertation examining committee will include a minimum of four members. At least two members, including the chairperson, will be Baylor Graduate Faculty from the degree-granting program. At least one member must be a member of Baylor's Graduate Faculty whose primary appointment is from a program other than the one conferring the degree. This non-program member helps to ensure a consistent level of quality, rigor, and fairness across all graduate programs at Baylor University. The committee may also include one member from outside of Baylor with approval of the candidate's Graduate Program Director. Non-Baylor committee members are not eligible to serve as the dissertation chairperson. The Graduate Program Director is responsible for ensuring the relevant expertise of the non-Baylor committee member and notifying the Graduate School through the Announcement of Doctoral Oral Examination form. The candidate's dissertation director will serve as the chairperson

of the committee and ensure that formal announcement of the examination is made, that the exam is conducted fairly, and that it is open to the faculty. The committee may include additional members beyond the required minimum of four. Preferably, the student and the examiners will be present in person, but in certain cases (e.g., online degree programs, extenuating circumstances, etc.) this may not be logistically possible. A Graduate Program Director may approve alternative formats for examination, including virtual, video-conferenced participation of one or more examiner(s). Such approval needs to be accompanied with justification to the Graduate School.

SPECIFIC DEGREE REQUIREMENTS

Doctor of Philosophy

The degree of Doctor of Philosophy is awarded to those who attain a high level of scholarship in a selected field, as well as the ability to conduct research.

Admission

Students not only must meet the general requirements for admission to graduate study, but also must have demonstrated in their undergraduate courses, and in all work beyond the baccalaureate level, scholarly potential and notable intellectual ability. Admission will require the concurrence of the graduate program director and the Graduate School. A standardized appropriate measure is required and specified by all departments. Some departments specify additional skill, performance, or aptitude requirements.

Program Requirements

Period of study. The equivalent of three academic years of full-time study beyond the bachelor's degree and the completion typically of twelve semester hours of dissertation research constitute the minimum requirements for degree completion. The majority of all course work toward completion of the Ph.D. degree must be taken at Baylor. The doctorate is not based on a number of courses or time units, but rather on the demonstrated ability to be a contributing scholar. Consequently, an individual may spend more than the minimum time earning the degree. Students may not use a course to meet more than one degree requirement.

Foreign language requirement. The prerogative of requiring a foreign language for the Ph.D. degree rests with the degree program. For those programs requiring foreign language, the requirement will consist of one or more languages approved by the degree program in consultation with the Graduate School. English may not be used as a foreign language. Intermediate proficiency in a foreign language may be demonstrated via any one of the options below:

1. Presenting an official undergraduate transcript from Baylor University or another regionally accredited institution of higher learning showing that while enrolled the student received a grade of "B" or better in the Baylor University 2320 course or its equivalent course in the foreign language taken at another institution. Note: This option is valid if the above course was taken not more than five years before the student matriculates into the Baylor graduate program.
2. After matriculation into the graduate program at Baylor University, and after having satisfied the necessary prerequisites, enrolling in 2320 and receiving a grade of "B" or better.
3. Enrolling in French, German, or Spanish 5370/5371, or Latin or Greek 5321/5322 and receiving a grade of "B" or better in French, German, or Spanish 5371 or Latin or Greek 5322. These are reading courses designed specially for graduate students; no previous experience with the language is necessary. The Graduate School must receive a petition requesting the foreign language course be accepted as completion of the language requirement. **These courses may not be audited, or taken Pass/Fail or Credit/Non-Credit**.
4. Taking the reading examination offered by the Department of Modern Languages and Cultures (Arabic, Chinese, French, German, Italian, Japanese, Spanish, Portuguese, Russian, or another modern language approved by the candidate's department), Department of Classics (Greek and Latin), or the Institute of Biblical and Related Languages (Hebrew and related Semitic Languages).
5. Presenting a degree from a foreign university. This procedure is valid if the student's native language is not that of the country in which the degree has been obtained.

The language requirement must be met before the form for application for admission to candidacy for the doctoral degree is filed. The student is responsible for securing proof of having satisfied the

language requirement. Deadlines for meeting the language requirement may be found on the Graduate School website (www.baylor.edu/graduate) and additional information regarding foreign language test preparation can be found on the Modern Languages and Cultures website (www.baylor.edu/MLC).

Major and Minor

A student's major field of study is determined by the program to which a student is admitted. At the option of the department, students may be required to select one or two minor fields in a department(s) other than the major. Should the department not require a minor, the student may declare a minor with the consent of the departments involved.

Departmental Supervision

Graduate Program Directors are entrusted with the responsibility for the initial supervision for the student's program of study. A research professor or committee, with the approval of the Graduate Program Director, assumes responsibility for supervising the student's academic performance until the time of the preliminary examination.

Preliminary Examination

This examination is designed to test the student's knowledge in the discipline or field(s) of study. It is either a written examination, or a combination of written and oral parts, and is given under the direction of both the graduate program director and a committee designated by the director. Incomplete grades must be removed prior to the preliminary examination. If the student does not pass the preliminary examination, a second one may be given no sooner than four months after the first examination. After two failures, no further examination is permitted.

Admission to Candidacy

Students are recognized as candidates for a doctoral degree only after they have met the foreign language requirement (if required), passed the preliminary examination(s), completed all departmental requirements including all coursework (except the dissertation), and received approval by the Graduate School of their formal application for admission to candidacy. An application for admission to candidacy form must be filed with the Graduate School upon successful completion of the above requirements, and prior to a student registering for dissertation hours.

Dissertation Supervision

This committee is appointed by the major department typically no later than the student's third semester of graduate study. The committee is entrusted with the responsibility of general supervision of the student's program of study, research, and dissertation. The committee will consist of three Graduate Faculty members: the chairperson who mentors the research and dissertation, and at least two others.

Dissertation

Candidates for the Doctor of Philosophy degree must present an acceptable dissertation on a problem in the field of their major subject. The dissertation must give evidence that the candidate has pursued a program of research, the results of which reveal scholarly competence and a significant contribution to knowledge.

Candidates should acquire the *Guidelines for Preparing the Dissertation and Thesis* and other necessary materials at the beginning of the semester in which graduation is expected. The most recent edition of Guidelines is available on the Baylor homepage www.baylor.edu/graduate/degree. Additional degree completion instructions are provided to students when they file for graduation. The Guidelines contain the directions for the procedure to complete the dissertation, an explanation of forms necessary, the semester calendar, and an explanation of fees associated with the process.

Final Examination

This oral examination is conducted by an examining body appointed by the Graduate School upon the recommendation of the graduate program director only after all courses, research, and dissertation requirements have been fulfilled. The dissertation research committee is an integral part of the examining committee.

The dissertation examining committee will include a minimum of four members. At least two members, including the chairperson, will be Baylor Graduate Faculty from the degree-granting program. At least one member must be a member of Baylor's Graduate Faculty whose primary appointment is from a program other than the one conferring the degree. This non-program member helps to ensure a consistent level of quality, rigor, and fairness across all graduate programs at Baylor University. The committee may also include one member from outside of Baylor with approval of the candidate's Graduate Program Director. Non-Baylor committee members are not eligible to serve as the dissertation chairperson. The Graduate Program Director is responsible for ensuring the relevant expertise of the

non-Baylor committee member and notifying the Graduate School through the Announcement of Doctoral Oral Examination form. The candidate's dissertation director will serve as the chairperson of the committee and ensure that formal announcement of the examination is made, that the exam is conducted fairly, and that it is open to the faculty. The committee may include additional members beyond the required minimum of four. Preferably, the student and the examiners will be present in person, but in certain cases (e.g., online degree programs, extenuating circumstances, etc.) this may not be logistically possible. A Graduate Program Director may approve alternative formats for examination, including virtual, video-conferenced participation of one or more examiner(s). Such approval needs to be accompanied with justification to the Graduate School.

Candidates who fail this examination may take a second one only upon the recommendation of the graduate program director and the approval of the Graduate School. In no case will this examination be given until an interval of at least four months has elapsed. After two failures, no further examination is permitted.

No longer than ten days after the oral examination, but no later than the "last day" deadline posted in the Graduate School *Academic Calendar* for the semester of graduation, an electronic pdf copy of the dissertation in its final departmentally approved form should be submitted to the Graduate School. With the dissertation copy, the student should also submit the appropriate forms required, as stated in the Guidelines. A student is certified for graduation once the pdf copy of the dissertation is submitted electronically and approved, and all remaining steps, as stated in the *Guidelines*, have been completed.

Doctor of Education

Through the School of Education, Baylor University offers two Doctor of Education degrees. In the department of Curriculum and Instruction, the Ed.D. in Learning and Organizational Change prepares students to apply essential principles of teaching and learning to manage the dynamics of organizational change. In the department of Educational Leadership, the degree program's emphasis prepares graduates for competent professional performance in executive leadership roles.

Curriculum and Instruction

Admission

Applicants to the online Ed.D. in Learning and Organizational Change program must hold a master's degree with a GPA that demonstrates strong academic success, which is normally 3.0 or higher. The online Ed.D. program starts three times per year — in January, May, and August. The admissions team accepts and reviews applications year-round on a rolling basis. Successful applicants possess backgrounds that demonstrate an ability to excel in a doctoral program and a strong desire to have a posititve impact in their field. GRE test scores are not required to apply to the online Ed.D. in Learning and Organizational Change program. All applicants must submit the online application, a resume/curriculum vitae, official transcripts of baccalaureate and master's degrees from accredited institutions, three letters of recommendation, a personal statement, and a video introduction.

Program Requirements

Transfer credit. No transfer credit is allowed in this program.

Foreign language. The Doctor of Education program has no foreign language requirement.

Time limitation. The maximum time limit for the doctoral degree is eight years from the time the student first matriculates into the doctoral program. After this time the student may request a one-year extension. Once a student's time limit expires, any student wishing to return to complete their degree after a one year absence, must reapply for admission to graduate school. The student would enter under the current catalog and the appropriate course work for degree completion may be revalidated or not, according to the policy of the individual program in consultation with the Graduate School.

Admission to candidacy. Admission to doctoral courses is not equivalent to admission to candidacy. Students are admitted to candidacy for the Doctor of Education degree only after they have passed Phase Two of their Problem of Practice. Students generally take the required course for Phase Two during their sixth semester in the program.

Major and minor. In this program, there is a specific sequence of courses that provides students with a foundation in Learning and Organizational Change, so this is the major. No minor is available for this program.

Faculty Advisors. Two (2) to three (3) Faculty Advisors are assigned to each cohort and follow them throughout their doctoral program. These faculty are the designated instructors for the Phase One, Phase Two, and Capstone courses to mentor students in the development of their Problem of Practice. Faculty Advisors will plan periodic meetings during the entire program to support Ed.D. student's overall development of the Problem of Practice.

Problem of Practice/Dissertation. The Problem of Practice is a comprehensive and ongoing written product that is completed throughout the program. Traditionally crafted as a "dissertation," the Problem of Practice for the Ed.D. program will be organized and completed in three distinct phases, with designated benchmarks in the Phase One, Phase Two, and Capstone courses. Students will work with faculty members to design and complete their Problem of Practice, formally presenting their ongoing progress throughout the program. The final written product will be submitted and presented to faculty during the capstone course.

On-Campus Immersions. Ed.D. students come to campus for two days (usually a Friday/Saturday arrangement) to experience Baylor campus, interact with faculty and other campus leaders, and engage in collegial discussions to further develop their academic experience and the Problem of Practice. These campus visits are included in both Phase One and Phase Two courses, but not the Capstone Course.

Educational Leadership

Admission

The Doctor of Education degree requires a minimum of sixty-five semester hours beyond the master's degree, and an adequate background in teaching pedagogy, school administration, elementary education, secondary education, educational psychology, the history and philosophy of education, educational statistics, and educational measurement.

Students must meet not only the general requirements for admission to graduate study, but must have demonstrated in their undergraduate courses and in all work above the baccalaureate level a scholarly interest and ability considerably beyond the average. Students desiring to work at the doctoral level must apply, even though another graduate degree may have been earned at Baylor University.

Admission to the Ed.D. Degree program is based upon student vocational aspirations as well as a variety of background, skill set/aptitudes and dispositions that project potential for successful completion of the program and subsequent success as a transformational K-12 leader. Applicants are sought who are already addressing educational/professional issues or who have a strong passion to gain skills and knowledge to address any number of pressing issues and problems faced in K-12 education systems. Specific factors considered in admission decisions include:

- Professional aspirations consistent with purpose of Baylor leadership preparation program
- Promising academic/professional aptitude for advanced study
- Successful teaching/administrative experience in a appropriate educational setting
- Personal/professional qualities and dispositions consistent with advanced study and an ethically-principled leadership
- Strong interpersonal and foundational communication skills
- Past academic performance
- Reasonable fit with available Baylor faculty and site-based mentor resources

In considering an individual's program application, the following sources of information are required to complete the admission review process: (1) Letter of Application, (2) Three Professional Reference Letters, (3) Current Professional Resume, (4) Certified University Transcript/s and professional certifications, (5) Professional Writing Sample, (6) Structured Interview, (7) Other Evidentiary Documents, such as portfolio of products that show leadership expertise, testimonials, performance evaluations, or sample innovations from teaching, leadership or writing experience.

Each of the above admission factors has associated with it one or more criteria intended to guide students in preparing applications and to aid the program in selecting students who demonstrate the high promise for a successful completion of the program and achieving the professional purpose for which the program is designed. In particular, the Baylor program seeks individuals as students who have a strong passion to gain skills and knowledge to provide ethical leadership and address any number of pressing issues and problems faced in K-12 education systems.

These criteria should not be viewed as individual requirements to be demonstrated, but rather as indicators that represent program planners' judgment about how each factor might best be demonstrated by individuals approaching this program from a traditional K-12 educational background. Applicants may, and are encouraged to, consider addressing other criteria/indicators that address the identified admission factors to persuade the admissions committee of the relevance of their aspirations, experience, and aptitude for this program.

Program Requirements

Transfer credit. The policy concerning transfer, extension, and workshop courses is the same as that listed under the General Degree Requirements for Doctoral Degrees. The work must have been completed within five years prior to matriculation into the doctoral program.

Time limitation. The maximum time limit for the doctoral degree is eight years from the time the student first matriculates into the doctoral program. After this time the student may request a one-year extension. Once a student's time limit expires, any student wishing to return to complete their degree after a one-year absence, must reapply for admission to graduate school. The student would enter under the current catalog and the appropriate course work for degree completion may be revalidated or not, according to the policy of the individual program in consultation with the Graduate School.

Admission to candidacy. Admission to doctoral courses is not equivalent to admission to candidacy. Students are admitted to candidacy for the Doctor of Education degree only after they have passed the preliminary examination. Students pursuing the program for the Doctor of Education degree will be permitted to take the preliminary examination for admission to candidacy after they have completed thirty semester hours of program-approved graduate study beyond a master's degree. This preliminary written examination should be a test of competence in the basic areas of study in education and should include general subject matter over the basic areas of educational leadership and support areas. The preliminary oral examination should be taken after students have passed the preliminary written examination. Admission to candidacy occurs after the student passes these two examinations. The preliminary examinations will be given each semester. They must be completed at least two semesters prior to the date the degree is conferred. In this case, the summer session may count as one semester. If any part of the written examination is failed, the examining committee may recommend reexamination. This may be permitted provided at least one-semester lapses between examinations. No more than two failures are permitted. An application for admission to candidacy form must be filed with the Graduate School upon successful completion of the above requirements, and prior to a student registering for dissertation hours. Students must be registered for at least one semester hour of graduate credit during the semester of intended graduation.

Supervisory committee. The major department appoints this committee typically no later than the student's third semester of graduate study. The committee is entrusted with the responsibility of general supervision of the student's program of study and dissertation. The committee will consist of three Graduate Faculty members: the chairperson who mentors the research and dissertation, and at least two others.

Dissertation. Candidates will be required to take courses in the methods and techniques of statistics, methods and techniques of research, framing and describing problems of practice as outlined in the degree plan. The dissertation must give evidence of student's ability to treat and conduct research, analysis, and writing about an educational problem of significance. The Graduate School provides a range of helpful resources including *Guidelines for Preparing the Dissertation and Thesis*, a UMI document on copyrighting, and degree certification deadlines.

Foreign Language. The Doctor of Education program has no foreign language requirement.

Graduate Record Examination (GRE) General Test. The Doctor of Education program has no GRE requirement.

Final Examination. This oral examination is conducted by an examining body appointed by the Graduate School upon the recommendation of the graduate program director only after all courses, research, and dissertation requirements have been fulfilled. The dissertation research committee is an integral part of the examining committee.

Student will present results from dissertation to the superintendent of schools or agency head, and executive leadership team including original design team, and the governance board for the participating institution. Student may also be required to present findings and recommendations to other groups as requested by the superintendent or agency head, such as committees of teachers or principals, and/or the elementary, middle or secondary principals.

The dissertation examining committee will include a minimum of four members. At least two members, including the chairperson, will be Baylor Graduate Faculty from the degree-granting program. At least one member must be a member of Baylor's Graduate Faculty whose primary appointment is from a program other than the one conferring the degree. This non-program member helps to ensure a consistent level of quality, rigor, and fairness across all graduate programs at Baylor University. The committee may also include one member from outside of Baylor with approval of the candidate's Graduate Program Director. Non-Baylor committee members are not eligible to serve as the dissertation chairperson. The Graduate Program Director is responsible for ensuring the relevant expertise of the non-Baylor committee member and notifying the Graduate School through the Announcement of Doctoral Oral Examination form. The candidate's dissertation director will serve as the chairperson of the committee and ensure that formal announcement of the examination is made, that the exam is conducted fairly, and that it is open to the faculty. The committee may include additional members beyond the required minimum of four. Preferably, the student and the examiners will be present in person, but in certain cases (e.g., online degree programs, extenuating circumstances, etc.) this may not be logistically possible. A Graduate Program Director may approve alternative formats for examination,

including virtual, video-conferenced participation of one or more examiner(s). Such approval needs to be accompanied with justification to the Graduate School.

Candidates who fail this examination may take a second one only upon the recommendation of the graduate program director and the approval of the Graduate School. In no case will this examination be given until an interval of at least four months has elapsed. After two failures, no further examination is permitted.

No longer than ten days after the oral examination, but no later than the "last day" deadline posted in the Graduate School *Academic Calendar* for the semester of graduation, an electronic pdf copy of the dissertation in its final departmentally approved form should be submitted to the Graduate School. With the dissertation copy, the student should also submit the appropriate forms required, as stated in the Guidelines. A student is certified for graduation once the pdf copy of the dissertation is submitted electronically and approved, and all remaining steps, as stated in the *Guidelines*, have been completed.

Doctor of Nursing Practice

The Doctor of Nursing Practice (DNP) is offered by Baylor University through the Louise Herrington School of Nursing. The emphasis of this clinical doctorate is to prepare nurses in an advanced practice role such as nurse practitioner and nurse-midwife to become scholar-practitioners to function in service related areas. The Post Master's DNP Program is designed for nurses who already hold a master's degree as a nurse practitioner or nurse-midwife. The Baccalaureate to DNP Program is designed to educate nurses in the advanced practice roles of family or neonatal nurse practitioner or nurse-midwife in order to provide evidence based, comprehensive healthcare to individuals and populations. The focus of the program is centered on the mission and values of service to underserved and global communities.

Admission

For admission to the Nursing Graduate Program, applicants must meet the general requirements set forth by the Graduate School and the Louise Herrington School of Nursing:

1. Bachelor's degree with a major in nursing or a master's degree with a major as an advanced practice nurse practitioner or midwife.
2. Cumulative undergraduate GPA of 3.0.
3. Unencumbered license to practice as a registered nurse in the United States or a U.S. territory.
4. FNP - One (1) year of full time experience as a practicing professional nurse (additional work experience may be required by faculty).
   NNP - Two (2) years of recent experience in a level 3 NICU (other experience may be considered on a case by case basis. Students with 1 year of experience may be considered for admission if they will have completed 2 years in the NICU before the first clinical course is taken).
   Midwifery - Optimally, although not required, have one year of clinical practice preferably in Labor and Delivery, extensive observational experiences of birth or education and practices as a doula.
5. GRE and MAT scores are optional.
6. Acceptable writing sample.
7. Applicants for the Doctor of Nursing Practice must have a graduate level statistics course.
8. Three letters of recommendation.
9. Submission of resume or curriculum vita.
10. Completion of a Graduate School application.
11. Personal interview.

There is no foreign language requirement. Applications are considered on an individual basis after the School of Nursing receives all admission materials.

Program of Study

The Baccalaureate to DNP program consists of 75-78 credits and may be completed over 8 years. Length of time varies between specific roles, however the average time for a full-time student is 8 semesters. An example of program plans can be found under the Louise Herrington School of Nursing section of the catalog. Advanced practice nurses seeking a Post Master's DNP will have a 38 credit program of study in addition to their master's credit hours (37 hours transferred from master's work).

The average length of time for a full-time Post Master's DNP is 5 semesters. All DNP students will have completed a minimum of 1,000 clinical hours prior to graduation.

Transfer of credit for graduate courses is possible but must be equivalent to the courses offered by Baylor University. A maximum of 37 credits may be transferred in for the Post Master's DNP. However, the School of Nursing reserves the right to add courses that are needed to meet the licensure requirements of the LACE Consensus Model (advanced pathophysiology, advanced pharmacology and/or advanced health assessment).

Advanced Residency hours are performed under the supervision of qualified graduate nursing faculty and are arranged in conjunction with the student. The Advanced Residency is designed to meet the DNP competencies while focusing on the student's specialty interests of practice.

The Capstone is a four course, 6 credit hour evidence-based practice project developed, implemented, evaluated and disseminated under the supervision of a Capstone Committee. The student is required to provide an oral defense of the Capstone Project to the Capstone Committee prior to being reviewed by the School of Nursing Research Committee and undergoing IRB approval. The final completed project is formally presented to the faculty of the Louise Herrington School of Nursing prior to graduation.

The Baccalaureate to DNP graduate is prepared to sit for the national board examination required in each specialty. The Post Master's DNP graduate is expected to maintain national certification in the specialty throughout the program.

Doctor of Psychology

This professional degree is offered by Baylor University through the Department of Psychology and Neuroscience. The emphasis in this degree program is on the training of clinical psychologists as scholar-practitioners to function in applied-service situations.

Admission

Students not only must meet the general admission requirements for graduate study, but must have demonstrated in their undergraduate and any postgraduate courses a scholarly and professional interest considerably above the average. Twelve hours of undergraduate psychology courses and a GRE general exam score that is predictive of success in this program are required. In addition, an autobiography, a record of relevant experience, a statement of research interests, and three letters of recommendation are required as a part of the completed application. Direct clinical or practicum-oriented experience in a closely related field is one of several major criteria used to evaluate applicants for the program. In addition, experience with and interest in clinically applied research is desired in successful applicants. Admission to this program is made only at the beginning of the second six weeks of the summer session each year, and all application materials must be received on or before January 2 of the year in which the applicant wishes to begin. Admission will require the concurrence of the chairperson of the Department of Psychology and Neuroscience and the Graduate School. Students must apply to this doctoral program even though another graduate degree may have been earned at Baylor University.

Program Requirements

Period of study. The Doctor of Psychology degree is a five-year program. Four years, including summers, consist of campus residency, including didactic and clinical practica and research totaling 107 semester hours beyond the baccalaureate degree. These courses follow a sequence established by the program faculty; a student may not alter this sequence or omit courses from the specified program without written approval by the program director. The fifth year is an internship program.

Time limitation. The maximum time limit for the doctoral degree is eight years from the time the student first matriculates into the doctoral program. After this time the student may request a one-year extension. Once a student's time limit expires, any student wishing to return to complete their degree after a one year absence, must reapply for admission to graduate school. The student would enter under the current catalog and the appropriate course work for degree completion may be revalidated or not, according to the policy of the individual program in consultation with the Graduate School.

Foreign language requirement. There is no requirement for competency in a foreign language for the Psy.D. program.

Residency. At least twelve consecutive semesters of residency are required. Summer school may count for no more than four of the semesters. Students must be registered for at least one semester hour of graduate credit during the semester of intended graduation.

Supervisory committee. The full-time clinical faculty of the Psy.D. Program, approved by the Graduate School, is entrusted with the responsibility of general supervision of the student's program of study, clinical practica, and internship. The Director of the Clinical Training chairs this committee.

Qualifying and comprehensive examinations. There are two qualifying written examinations, one in January of the second year and the other at the end of the third year. Students must pass the qualifying examinations prior to approval for internship. If any part of the qualifying examination is failed, the examining committee may recommend reexamination. No more than one failure per examination is permitted, and at least four months must elapse between examinations.

Admission to candidacy. Admission to the doctoral program is not equivalent to admission to candidacy. Students are admitted to candidacy after successful completion of at least seventy-one semester hours of residency, and after satisfactory performance of the written qualifying examination. Formal application for admission to candidacy is made through procedures established by the Graduate School.

Integrative clinical oral examination. An integrative clinical examination including an oral examination and an integrative written examination is conducted during the fourth year. The committee for the examination will include three members of the core clinical faculty and a supervising clinician from the list of practicum appointees. If the clinical practice examination is failed, the examining committee may recommend reexamination. No more than one failure is permitted, and at least four months must elapse between examinations.

Clinical practicum. At least thirty semester hours of practicum training are required of all students. Practicum hours must be completed prior to the internship year.

Dissertation and research practicum. In the fourth year of study, each student will complete a clinical research practicum. This practicum requires six semester hours of Dissertation research and must result in a completed Dissertation in Clinical Psychology.

Dissertation supervision. A committee is designated by the graduate program director. This committee may be the same committee that assumes responsibility for the initial supervision, or it may be newly appointed. The committee that provides initial supervision is four readers, all members of Graduate Faculty. The student's mentor is the chairperson of the committee.

Dissertation. Candidates for the Doctor of Psychology degree must present an acceptable dissertation on a problem in the field of their major subject. The dissertation must give evidence that the candidate has pursued a program of research, the results of which reveal scholarly competence and a significant contribution to knowledge.

Candidates should acquire the *Guidelines for Preparing the Dissertation and Thesis* and other necessary materials at the beginning of the semester in which graduation is expected. The most recent edition of Guidelines is available on the Baylor Graduate School website. Additional degree completion materials not available on the homepage are provided to students when they file for graduation. The Guidelines contain the directions for the procedure to complete the dissertation, an explanation of forms necessary, the semester calendar, and an explanation of fees associated with the process.

Dissertation Examination. This oral examination is conducted by an examining body appointed by the Graduate School upon the recommendation of the graduate program director only after all research and dissertation requirements have been fulfilled. The dissertation research committee is an integral part of the examining committee.

The dissertation examining committee will include a minimum of four members. At least two members, including the chairperson, will be Baylor Graduate Faculty from the degree-granting program. At least one member must be a member of Baylor's Graduate Faculty whose primary appointment is from a program other than the one conferring the degree. This non-program member helps to ensure a consistent level of quality, rigor, and fairness across all graduate programs at Baylor University. The committee may also include one member from outside of Baylor with approval of the candidate's Graduate Program Director. Non-Baylor committee members are not eligible to serve as the dissertation chairperson. The Graduate Program Director is responsible for ensuring the relevant expertise of the non-Baylor committee member and notifying the Graduate School through the Announcement of Doctoral Oral Examination form. The candidate's dissertation director will serve as the chairperson of the committee and ensure that formal announcement of the examination is made, that the exam is conducted fairly, and that it is open to the faculty. The committee may include additional members beyond the required minimum of four. Preferably, the student and the examiners will be present in person, but in certain cases (e.g., online degree programs, extenuating circumstances, etc.) this may not be logistically possible. A Graduate Program Director may approve alternative formats for examination, including virtual, video-conferenced participation of one or more examiner(s). Such approval needs to be accompanied with justification to the Graduate School.

Candidates who fail this examination may take a second one only upon the recommendation of the graduate program director and the approval of the Graduate School. In no case will this examination be given until an interval of at least four months has elapsed. After two failures, no further examination is permitted.

No longer than ten days after the oral examination, but no later than the "last day" deadline posted in the Graduate School *Academic Calendar* for the semester of graduation, an electronic pdf copy of the dissertation in its final departmentally approved form should be submitted to the Graduate School. With the dissertation copy, the student should also submit the appropriate forms required, as stated in the Guidelines. A student is certified for graduation once the pdf copy of the dissertation is submitted electronically and approved, and all remaining steps, as stated in the *Guidelines*, have been completed.

Predoctoral internship. Each student is required to complete a predoctoral internship in the fifth year of the program at a site accredited by the American Psychological Association. Students on internship must enroll in PSY 6V01 each term while on internship.

Other requirements. Each student is required to comply in full with all additional policies and rules specified in the Psy.D. Program manual. This manual is distributed to all students enrolled in the program.

Additional information. See "Psychology and Neuroscience" in the courses section of the catalog.

Doctor of Physical Therapy

The Doctor of Physical Therapy (D.P.T.) degree is offered through an affiliation with the Army Medical Department Center and School, Health Readiness Center of Excellence located at Joint Base San Antonio-Fort Sam Houston, Texas. The program is 30 months in length and includes 18 months of didactic coursework, a clinical affiliation during Semester II, and 12 months of clinical internship. Students are commissioned in one of three of the uniformed services: Army, Navy, or Air Force. Due to the students' active duty obligation and association with the uniformed services, certain policies and procedures governing students are unique to this program and may be found in the most current Program Manual or the individual student assessment plan (ISAP) published by this graduate program. For a description of the admission requirements, prerequisite course information, curriculum, and graduation requirements, see the "Affiliated Programs" section of this catalog.

Doctor of Science in Occupational Therapy

Baylor University offers the Doctor of Science degree in Occupational Therapy (D.Sc.O.T.), in affiliation with the U.S. Army Medical Department Center and School (AMEDDC&S). This degree is an advanced-practice postprofessional clinical doctorate designed to meet the professional development and specialty needs of Army occupational therapists. The didactic, clinical and research components of the program are presented at Brooke Army Medical Center and additional facilities at Joint Base San Antonio, Ft. Sam Houston in San Antonio, Texas. The program is designed for active-duty Army occupational therapy personnel possessing a master's degree in occupational therapy. For a description of the prerequisites and degree requirements, refer to the "Affiliated Programs" section of this catalog.

Doctor of Science in Physical Therapy

Baylor University offers the Doctor of Science degree in Physical Therapy (D.Sc.P.T.), major in Orthopaedics, in affiliation with the U.S. Army, at two locations. The concentration for the program offered at Brook Army Medical Center, Fort Sam Houston in San Antonio, Texas, is Orthopaedic Manual Physical Therapy. For the program offered at Keller Army Community Hospital at the United States Military Academy, West Point, New York, the concentration is Sports Medicine and Primary Care.

The program mission is to produce active duty, post-graduate-level specialty trained physical therapists who provide state-of-the-art advanced care and clinically relevant research to benefit the Military Health System. Further information is presented in the "Affiliated Programs" section of this catalog.

Doctor of Science in Physician Assistant Studies

Baylor University offers the Doctor of Science degree in Physician Assistant Studies (D.Sc.P.A.S.), major in Emergency Medicine, General Surgery, and Clinical Orthopaedics, in affiliation with the U.S. Army Medical Department Center and School. The program is designed for active-duty personnel who

already hold the master's degree in physician assistant studies. The curriculum provides advanced education and training to further enhance the abilities of clinicians to save soldiers' lives on the battlefield and to serve Military Health System beneficiaries. For a description of prerequisites and degree requirements, refer to the "Affiliated Programs" section of this catalog.

MASTER'S DEGREES

GENERAL DEGREE REQUIREMENTS

The following general requirements apply to all master's programs administered by the Graduate School.

Content of Graduate Program

A minimum of thirty semester hours will be required. A minimum of one-half of the semester hours required for the master's program, exclusive of thesis credits, must be in courses numbered at the 5000 level. Specific graduate programs may require more than the minimum number of hours. Students may not use a course to meet more than one degree requirement.

Transfer Credit

For master's degrees, the accepted number of transfer credits will be determined by the individual academic departments within the following general guidelines:

- 25 percent of the required Baylor course work (excluding internships, practica, and theses) may be petitioned for transfer,
- the total number of transferred credits may not exceed fifteen semester hours,
- course work must be from an accredited university and appear on a graduate transcript,
- course work must have been taken within the five years immediately prior to matriculation,
- course work must carry a grade of "B" or better (cannot accept P/F, CR/NC, or certificate of completion, and
- none of the transfer course work consists of extension or transfer courses.

Time Limitation

The maximum time limit for the master's degree is five years from the time the student first matriculates into the master's program. After this time, the student may request a one-year extension. Once a student's time limit expires, any incompletes with the exception of dissertation or thesis hours will change to an "F". Any student wishing to return to complete their degree after a one year absence, must reapply for admission to graduate school. The student would enter under the current catalog and the appropriate course work for degree completion may be revalidated or not, according to the policy of the individual program in consultation with the Graduate School. Coursework where incompletes have been changed to an "F" may not count in the new program.

Graduation Eligibility

To qualify for a master's degree, students must have a minimum overall grade point average of 3.0 and must have satisfied all course work, practica, project, thesis, or other academic/professional efforts associated with the degree sought. No member of the Baylor University faculty above the rank of Lecturer may be admitted to candidacy for a graduate degree at the University.

Filing for Graduation

Students file for graduation on the Graduate School website in the first two weeks of classes within the semester in which the degree is expected to be conferred (see Academic Calendar in this catalog). Students can file online at www.baylor.edu/file. Students pursuing a joint degree program must file for graduation in both programs or schools.

Processing of diplomas takes four to eight weeks. Because of the processing time, students who file late will not be guaranteed a diploma at the commencement ceremony. The degree is conferred at the first commencement ceremony following program completion. Ceremonies are held in August, December, and May (see Academic Calendar in this catalog). Students must be registered for at least one semester hour of graduate credit during the semester of intended graduation.

Committee Composition

The thesis examining committee will include three members of the Baylor Graduate Faculty: the committee chairperson, one other Graduate Faculty member from the student's home department,

and a third member, or "outside" member. The outside member must be a Graduate Faculty member whose primary faculty appointment is from a department other than the one conferring the student's degree. The student's mentor will serve as the chairperson of the committee and ensure that formal announcement of the examination is made, that the exam is conducted fairly, and that it is open to the faculty. The "official outside" member helps to ensure a consistent level of quality, rigor, and fairness across all graduate programs at Baylor University and may or may not be actively involved in the thesis. The committee may include additional members (who are not necessarily members of the Graduate Faculty) beyond the minimum required number.

If a candidate fails the comprehensive or oral examination, a second examination may be taken contingent upon the approval of both the department(s) concerned and the Graduate School. No reexamination may be conducted until at least four months has elapsed. (Students in the U.S. Army-Baylor Health Care Administration program are required to take the reexamination within four months from the date of the initial board.) After two failures, no further examination is permitted.

Specific Degree Requirements

Master of Arts

The Master of Arts degree is available to persons who have a bachelor's degree from an accredited college and who meet the minimal requirements described below.

Foreign Language

The prerogative of requiring a foreign language for the M.A. degree rests with the degree program. M.A. students enrolled in degree programs which require a foreign language may fulfill this requirement by demonstrating intermediate proficiency via any one of the options below:

1. Presenting an official undergraduate transcript from Baylor University or another regionally accredited institution of higher learning showing that while enrolled the student received a grade of "B" or better in the Baylor University 2320 course or its equivalent course in the foreign language taken at another institution. Note: This option is valid if the above course was taken not more than five years before the student was accepted into the Baylor graduate program.
2. After matriculation into the graduate program at Baylor University, and after having satisfied the necessary prerequisites, enrolling in 2320 and receiving a grade of "B" or better.
3. Enrolling in French, German, or Spanish 5370/5371, or Latin or Greek 5321/5322 and receiving a grade of "B" or better in French, German, Spanish 5371, or Latin or Greek 5322. These are reading courses designed specially for graduate students; no previous experience with the language is necessary. The Graduate School must receive a petition requesting the foreign language course be accepted as completion of the language requirement. **These courses may not be audited, or taken as Pass/Fail or Credit/Non-Credit**.
4. Taking the reading examination offered by the Department of Modern Languages and Cultures (Arabic, Chinese, French, German, Italian, Japanese, Spanish, Portuguese, Russian, or another modern language approved by the candidate's department), Department of Classics (Greek and Latin), or the Institute of Biblical and Related Languages (Hebrew and related Semitic Languages).
   Note: Students in International M.A. degree programs (Master of International Journalism) must pass an oral examination in addition to the reading examination (Option #4). Bona fide foreign international M.A. students may use English as their foreign language, provided their TOEFL (Test of English as a Foreign Language) score is 550 or higher.
5. Presenting a degree from a foreign university. This procedure is valid if the student's native language is not that of the country in which the degree has been obtained.

The student is responsible for securing proof of having satisfied the language requirement. Deadlines for meeting the language requirement may be found on the Graduate School website (www.baylor.edu/graduate/degree) and additional information regarding foreign language test preparation can be found on the Modern Languages and Cultures website (www.baylor.edu/MLC).

Graduate Hours

Minimally, thirty semester hours of graduate course work are required for a thesis program, and thirty-three semester hours are minimally required for a non-thesis degree. Individual degree programs have the option of increasing the required number of semester hours. The programs also set the required minimum thesis credits which typically consist of six semester hours. The minimum number will apply for all students in the program. A student may not use a course to meet more than one degree requirement.

Approved Major and Minor

Students may have no more than two fields of graduate study. They may earn no fewer than eighteen semester hours in the major field, and no fewer than six semester hours in the minor field. The minor field must be approved by the chairpersons of both the major and minor departments. With the approval of the major professor and the Graduate School, a student may include a limited number of courses from allied fields as part of the major program, or in lieu of a minor. If the degree program offers a sufficient number of graduate courses to satisfy degree completion, the course work can be completed within one department.

Thesis

The prerogative of requiring a thesis for the Master of Arts degree rests with the degree program. Should a thesis be required, the following requirements apply:

1. The chairperson of the department and/or the graduate program director approve both the thesis topic and the chairperson of the thesis committee. The thesis committee chairperson must be a member of the Baylor Graduate Faculty.
2. The chairperson of the department or the graduate program director, in consultation with both the candidate and the committee chairperson, will identify the members of the thesis committee. The thesis examining committee will include three members of the Baylor Graduate Faculty: the committee chairperson, one other Graduate Faculty member from the student's home department, and a third member or "outside" member. The outside member must be a Graduate Faculty member whose primary faculty appointment is from a department other than the one conferring the student's degree. The student's mentor will serve as the chairperson of the committee and ensure that formal announcement is made, that the exam is conducted fairly, and that it is open to the faculty. The "official outside" member helps to ensure a consistent level of quality, rigor, and fairness across all graduate programs at Baylor University and may or may not be actively involved in the thesis. The committee may include additional members (who are not necessarily members of the Graduate Faculty) beyond the minimum required number.
3. The thesis committee will approve the general plan of the research project and the topic of the thesis.
4. Candidates are expected to consult with the members of their committee and to acquire the approval of the committee as well as the major department chairperson of the completed draft of the thesis. Candidates should acquire Guidelines for Preparing the Dissertation and Thesis and other necessary materials at the beginning of the semester in which graduation is expected. The most recent edition of the Guidelines is available on the Baylor homepage www.baylor.edu/graduate/degree.
5. No longer than ten days after the oral examination, but no later than the "last day" deadline posted in the Graduate School Academic Calendar for the semester of graduation, an electronic pdf copy of the thesis in its final departmentally approved form should be submitted to the Graduate School. With the thesis copy, the student should also submit the appropriate forms required, as stated in the Guidelines. A student is certified for graduation once the pdf copy of the thesis is submitted electronically and approved, and all remaining steps, as stated in the Guidelines, have been completed.

Examinations

Candidates in thesis programs who complete the required program of study and a satisfactory thesis will take an oral examination. The format of the examination will be determined by the student's major department.

Candidates in non-thesis programs who complete the required program of study and any other special degree requirements will take a comprehensive oral examination as determined by the major and, if applicable, minor departments. (A written examination may be required in lieu of the oral examination

as a matter of policy only with the prior written approval of the Graduate School.) At the option of a school/department, both an oral and a written examination may be required.
The following policies should be noted regarding the comprehensive or oral examination:

1. All incomplete grades (except in a thesis or scientific research course) must be removed prior to the final oral or written examination.
2. The examination will be conducted by a minimum of two Graduate Faculty Members in the student's major degree program and one pre-approved "outside" member. The "official outside" member must be a Graduate Faculty member whose primary faculty appointment is from a department other than the one conferring the student's degree. The committee must be approved 10 working days prior to the examination by the Graduate School.
3. The examination should give the candidate the opportunity to defend the intellectual substance of the thesis, including the structure of the argument advanced, the methodology used, and the interpretation offered.
4. The examination should be taken by the published deadline for meeting graduation requirements for any given semester. The candidate should arrange the date of the examination with the chairperson of the examination committee and acquire approval of this date from the Graduate School.

Master of Science

The Master of Science degree, which is offered through facilities in either Waco or Dallas, is offered to students who have earned a bachelor's degree from an accredited university or college. The requirements for this degree are the same as for the Master of Arts degree, except that there is no foreign language requirement.

Professional Degrees

Master of Accountancy

The Master of Accountancy degree is offered to students who have earned a bachelor's degree from an accredited university or college. For further information and requirements, see the "School of Business" section.

Master of Business Administration

The Master of Business Administration degree is offered to students who have earned a bachelor's degree from an accredited university or college. Degree plans are tailored to accommodate undergraduate majors in both business and non-business fields. For further information and requirements, see the "School of Business" section.

Master of Engineering

The Master of Engineering degree is offered to students who have earned an appropriate bachelor's degree from an accredited university or college. For further information and degree requirements, see the "School of Engineering and Computer Science" section.

Master of Environmental Studies

The Master of Environmental Studies degree is offered to students who have earned a bachelor's degree from an accredited university or college. For a description of the prerequisites and degree requirements, see the "Environmental Science" section.

Master of Fine Arts

The Master of Fine Arts degree in directing is offered to students who have earned a bachelor's degree from an accredited university or college and whose career goal is a profession in which this degree would ordinarily be considered a terminal degree. For a description of the prerequisites and degree requirements, see the "Theater Arts" section.

Master of Health Administration

The Master of Health Administration degree is offered through an affiliation with the U.S. Army, Academy of Health Sciences, Fort Sam Houston, Texas. This program is for specifically targeted federal personnel. For a description of the prerequisites and degree requirements, see the "Affiliated Programs" section.

Master of Health Administration/Master of Business Administration

The MHA/MBA joint degree is offered through an affiliation with the U.S. Army, Academy of Health Sciences, Fort Sam Houston, Texas. This program is only open to qualified students attending the Army-Baylor MHA or MHA/MBA program. For a description of the prerequisites and degree requirements, see the "Affiliated Programs" section.

Master of International Journalism

The Master of International Journalism degree is offered to students who have earned a bachelor's degree from an accredited university or college. For a description of the prerequisites and degree requirements, see the "Journalism" section.

Master of Music

The Master of Music degree is offered to students who have earned a bachelor's degree in music from an accredited university or college. For a description of the prerequisites and requirements for this degree, see the "Music" section.

Master of Public Health

The Master of Public Health degree is offered to students who have earned a bachelor's degree from an accredited university or college. For a description of the prerequisites and requirements for this degree, see the "Health, Human Performance, and Recreation" section.

Master of Public Policy and Administration

The Master of Public Policy and Administration degree is offered to students who have earned a bachelor's degree from an accredited university or college. For a description of the prerequisites and requirements for this degree, see the "Political Science" section.

Master of Science in Biomedical Engineering

The Master of Science in Biomedical Engineering degree is offered to students who have earned an appropriate bachelor's degree from an accredted university or college. For further information and degreee requirements, see the "School of Engineering and Computer Science" section.

Master of Science in Economics

The Master of Science in Economics degree is offered to students who have earned a bachelor's degree from an accredited university or college and who intend to seek full time employment or enter a Ph.D. program in economics after graduation. For a description of the prerequisites and degree requirements, see the "Economics" section.

Master of Science in Education

The Master of Science in Education degree is offered to students who have earned a bachelor's degree from an accredited university or college, and whose career goal is a profession in which this degree would ordinarily be considered desirable for an individual's professional growth and development. For a description of the prerequisites and degree requirements, see the "Education" section.

Master of Science in Electrical and Computer Engineering

The Master of Science in Electrical and Computer Engineering degree is offered to students who have earned an appropriate bachelor's degree from an accredited university or college. For further information and degree requirements, see the "School of Engineering and Computer Science" section.

Master of Science in Information Systems

The Master of Science in Information Systems degree is offered to students who have earned a bachelor's degree from an accredited university or college. For further information and requirements, see the "School of Business" section.

Master of Science in Limnology

The Master of Science in Limnology is a specialized degree for students who wish to receive advanced education in limnology. As limnology is a field comprising not only biological, but also physical, chemical, geological, and other subdisciplines, a bachelor's degree in biology is not required for admission. For more information, see the "Biology" section.

Master of Science in Mechanical Engineering

The Master of Science in Mechanical Engineering degree is offered to students who have earned an appropriate bachelor's degree from an accredited university or college. For further information and degree requirements, see the "School of Engineering and Computer Science" section.

Master of Science in Nursing

The Master of Science in Nursing is offered at the Baylor University School of Nursing in Dallas. Individuals interested in pursuing this degree must be a registered nurse with a bachelor's degree in any field. For a description of the prerequisites and degree requirements, see the "Nursing" section.

Master of Science in Nutrition

The Master of Science in Nutrition degree is offered through an affiliation with the U.S. Army, Academy of Health Sciences, Fort Sam Houston, Texas. This program is for specifically targeted federal personnel. For a description of the prerequisites and degree requirements, see the "Affiliated Programs" section.

Master of Taxation

The Master of Taxation degree is offered to students who have earned a bachelor's degree from an accredited university or college. For a description of the prerequisites and degree requirements, see the "School of Business" section.

Education Specialist

The Education Specialist degree is offered to students who have earned an appropriate bachelor's degree from an accredited university or college and whose career goal is a profession in which this degree would ordinarily be considered a terminal degree. For additional information see the "Education" section.

Curriculum

Departments and Institutes of Instruction

DEPARTMENTS AND INSTITUTES OF INSTRUCTION

All departments listed in the following pages offer graduate work in the major field and some offer a minor except those that offer a minor only. Several departments list the requirements needed to complete only a minor in their area. Where prerequisite courses are listed, these courses or their equivalent must be included in the undergraduate preparation for graduate study. Such prerequisite courses do not count for graduate credit.

AMERICAN STUDIES

Director: Dr. Mia Moody-Ramirez

The graduate program in American Studies is an interdisciplinary program offering comprehensive study in American institutions and culture. The basic program consists of courses in American history and American literature.

Prerequisites for graduate work in American studies must include twenty-one semester hours in any one or in any combination of the following areas: American history, government, literature, and philosophy; history of American education; history of religion in America; and American sociological problems. There is no foreign language requirement. Applicants must submit a Graduate Record Examination (GRE) General Test score; a GRE score and a GPA predictive of success in this program are recommended.

Graduate work in American Studies for the Master of Arts degree consists of thirty semester hours, at least fifteen of which must be in courses numbered above 5000. Distribution requirements are as follows:

a.	**Core** AMS 5V99 (6 hours) AMS 4385	9 sem. hrs.
b.	**Three courses cross-listed with English, history, or journalism**	9 sem. hrs.
c.	**One research methods class from English, history, or journalism**	3 sem. hrs.
d.	**Electives** To be chosen from American Studies courses approved for graduate credit (see listings).	9 sem. hrs.
	Total	**30 sem. hrs.**

All courses taken for graduate credit must be approved by the Director of American Studies.

DEPARTMENT OF ART

Chairperson: Mark W. Anderson

The Department of Art offers a minor in art education in collaboration with the Department of Curriculum and Instruction (School of Education) as part of the Master of Arts (M.A.) or Master of Science in Education (M.S.Ed.) degree programs. The minor affords advanced study in art history, studio art, or a combination of these.

The M.A. (30 semester hours) requires a thesis oriented toward art education. The M.S.Ed. (36 semester hours) is composed of course work only. The minimal course work for a minor in Art for either degree is 15 semester hours of art course work at the graduate level, allocated as (1) 9 semester hours in advanced art history or advanced studio art and (2) 6 semester hours in special problems in art history or studio art. No foreign language is required for a minor in Art.

In addition to meeting the admission requirements of the Graduate School and the Department of Curriculum and Instruction, the applicant must have completed or qualify for the All-level Teaching Certificate in Art. Additionally, the studio art faculty must be familiar with the applicant's art abilities either as a student or by means of a portfolio of art work. The Department of Art will evaluate the student's progress after one semester. The Department of Art requires a solo exhibition which becomes part of the final examination. Further, the Department of Art will retain two examples of student work for its permanent collection.

Art History

ART 4357	American Art
ART 4358	Contemporary Art
ART 4365	Italian Renaissance Art

Studio Art

ART 4320	Watercolor Painting
ART 4321	Advanced Painting
ART 4324	Advanced Intaglio
ART 4325	Advanced Lithography
ART 4330	Illustration
ART 4331	Package Design
ART 4332	Identity Design

Special Problems in Art or Art History

ART 4V90	Special Problems in Studio Art
ART 4V91	Special Problems in Art History

Students wishing to pursue a minor in art on the graduate level must be approved by the appropriate art instructor and the Chair of the Department of Art.

ASIAN STUDIES

The Asian Studies program provides opportunities for study and research of the diverse societies that inhabit the Asian continent, from the Ural Mountains to Southeast Asia. The program takes as its geographical focus the regions of Eurasia and the Asia-Pacific. Interdisciplinary in approach, the program spans the fields of economics, foreign languages, history, political science, sociology, and religion, and is dedicated to providing opportunities for foreign study and field experiences.

While no graduate degree is offered in Asian Studies, the following courses are approved for graduate credit in other programs.

AST 4305	Modern China (HIS 4305)
AST 4310	Societies and Cultures of East Asia (ANT 4310)
AST 4325	Asian International Relations (PSC 4325)
AST 4340	East Asian Philosophy (PHI 4340)
AST 4350	Seminar in Asian Studies
AST 4362	Traditional Music and Culture in Asia (MUS 4362)
AST 4364	The Governments and Politics of the Asia-Pacific Region (PSC 4364)
AST 4374	Governments and Politics of East Asia (PSC 4374)
AST 4376	Asian Literature in Translation (MFL 4376)
AST 4V80	Contemporary Issues in Asian Studies

DEPARTMENT OF BIOLOGY

Chairperson: Dwayne D. Simmons
Graduate Program Director: Ryan S. King

The Department of Biology offers advanced study leading to doctoral (Ph.D.) and master's (M.S., M.A.) degrees with emphases in ecology, evolution, and organismal biology (EEO) and in cellular, molecular, health, and disease (CMHD) biology.

Doctoral Program

Advanced study leading to the Ph.D. in biology is offered in ecology, evolution, and organismal biology and in molecular, cellular, and developmental biology. A B.S. or B.A. degree in biology or appropriate related discipline is required for admission to graduate study in this program. Applicants must also submit official scores from the Graduate Record Examination (GRE) General Test, taken within the last five years, that are predictive of success in this program. Students entering the program with graduate-level course work may petition to apply up to twenty-four semester hours of approved courses toward the Ph.D. Additional hours beyond twenty-four may be considered on a course-by-course basis by the Graduate Committee. Thesis hours are not transferable toward doctoral requirements.

A minimum of seventy-eight semester hours beyond the bachelor's degree is required for the Ph.D. At least thirty-six semester hours of this must consist of course and laboratory work, excluding BIO 6V99,

Dissertation. Dissertation (minimum of twelve semester hours) and its associated research generally comprise the remaining forty-two semester hours, although a portion may be devoted to additional course and laboratory work at the discretion of the student's advisory/dissertation committee. The dissertation advisor will be a member of the Biology graduate faculty or approved graduate faculty in affiliated life-science departments or programs at Baylor University.

Twelve semester hours of the required thirty-six semester hours of course and laboratory work are to include the following courses: Research Methods in Biology I and II (BIO 5201, 5202), Biometrics (BIO 5412), and Seminar (BIO 5100, BMS 5100; minimum of 4 hours). Appropriate courses may be substituted for Biometrics (e.g., STA 5300) as approved by the student's advisory committee and graduate program director. Students with a CMHD emphasis are required to register for 3 hours of BIO 6101 (Research Rotations) during their first semester.

A maximum of eight combined hours of BIO 5100 and BMS 5100 (or other approved seminars) may count toward degree requirements; repeat credit requires change in topic from previous registrations. If the student has successfully completed the equivalents of these courses in a master's program, then the student's advisory committee may petition the Graduate Committee to waive these courses.

The remaining twenty-four semester hours of required course work (including laboratory research) must include a minimum of fourteen semester hours at the 5000/6000 level. A maximum of nine hours of Special Problems (BIO 5V90) can be applied toward doctoral degree requirements. Judicious selection of courses, assisted by the faculty mentor, facilitates specialization in ecology and evolutionary biology or in molecular, cellular and developmental biology. The committee will consist of at least five graduate faculty, including the student's major professor, three graduate faculty members from the Department of Biology, and a Graduate School representative. Additional members from appropriate disciplines may also serve on dissertation committees. The committee will be chosen by the major professor and student in consultation with the Graduate Program Director in Biology.

A written Ph.D. comprehensive examination will be prepared by the student's preliminary examination committee. This will be administered during the 4th semester following the student's entry into the program. The oral portion of the examination will encompass a defense of the student's dissertation proposal presented and evaluated by the student's committee. The Biology written exam will cover basic concepts in areas appropriate to the student's background as determined by the preliminary examination committee and will determine the student's readiness to begin dissertation research. Doctoral students must demonstrate familiarity with the scientific literature, and expertise in experimental design, in collection and analysis of data, and in interpretation of results in subject areas pertinent to the student's dissertation research. After completion of a doctoral dissertation, that includes a mandatory publication in a rigorous peer-reviewed academic journal, the candidate has a final oral examination involving defense of the dissertation. Doctoral students present a public exit seminar based on the dissertation.

Doctoral degree program students must fulfill a one-year teaching requirement under the mentorship of a faculty member. This usually involves assisting in undergraduate laboratory course instruction as a graduate teaching assistant or serving as instructor-of-record in a lecture course.

There is no foreign language requirement for the Ph.D. degree in Biology. However, individual advisors and committees may require students to satisfy a language requirement or demonstrate special research skills through formal course work at the graduate level.

Master's Programs

Applicants who have completed a major in a biological science or appropriate related discipline and who present grade point averages and GRE General Test scores (taken within the last five years) that are predictive of success in this program may be admitted to the master's degree program. The M.S. degree is offered in Biology, in Environmental Biology, and in Limnology. The M.A. degree is offered in general Biology and Biology with a health profession concentration. The minimum requirement for M.S. degrees is thirty semester hours, including six semester hours of research (BIO 5V99) leading to an acceptable thesis. The minimum requirement for the M.A. degrees, which are non-thesis, are thirty semester hours of graduate course work.

Research Methods in Biology I and II (BIO 5201, 5202) and Biometrics (BIO 5412) are required for all master's programs. Appropriate courses may be substituted for Biometrics (e.g., STA 5300) as approved by the student's advisory committee and graduate program director. Up to four hours of Seminars in Biology (BIO 5100), Biomedical Seminar (BMS 5100) or other appropriate seminars approved by the student's committee and graduate program director may be applied toward a master's program; repeat credit requires a change in topic from previous registrations. Not more than six hours of Special Problems in Biology (BIO 5V90) may be applied toward master's degree requirements. Master's students present a public exit seminar based on the thesis (M.S. degrees) or other approved topic (M.A. degree). During the final semester, master's students will have an oral examination

comprising (1) demonstration of master's level knowledge in the concept areas associated with their area of emphasis, according to the particular degree program, and, for M.S. degrees, (2) defense of the thesis and (3) demonstration of proficiency in scientific investigation. There is no foreign language requirement or teaching requirement for master's degrees in Biology.

For master's students, the major professor and the graduate program director in consultation with the student will select a thesis committee before the research is begun. The complete committee should be assembled by the end of the student's second semester. The major professor will be a member of the Biology graduate faculty or approved graduate faculty in affiliated life-science departments or programs at Baylor University. The committee consists minimally of three graduate faculty members, professors, including the major professor, a member of the Biology Department faculty and a graduate faculty member from a department other than Biology. Additional faculty may be included on the committee. The committee is involved in the development of the thesis proposal, and must approve the proposal before thesis research begins.

The *M.S. degree in Biology* is for those interested in developing an area of biological expertise through course work and an in-depth research experience that culminates in a thesis. Students may follow either of two emphases: ecology, evolution, and organismal biology (EEO), or cellular, molecular, health, and disease (CMHD) biology. Students in both emphases must demonstrate familiarity with the scientific literature, and expertise in experimental design, in collection and analysis data, and in interpretation of results in subject areas pertinent to the student's thesis research. The majority of course work is in Biology, although graduate courses in allied areas (e.g., Biomedical Studies, Health Sciences, Environmental Studies) may be taken with approval of the student's committee and graduate program director.

The *M.S. degree in Environmental Biology* is for those interested in applied environmental biology. Course work and research emphasize the solution of current environmental problems. Degree requirements include at least eighteen semester hours of approved Biology courses, of which twelve semester hours must be at the 5000 level, and six semester hours from approved graduate courses in the Department of Environmental Sciences. The concept areas in this track include terrestrial and aquatic ecology, invasion and conservation ecology, environmental pollution, environmental management, and environmental ethics. Students also must demonstrate familiarity with the scientific literature, and expertise in experimental design collection and analysis of data, and in interpretation of results in subject areas pertinent to student's thesis research.

The *M.S. degree in Limnology* is a specialized degree for students who wish to receive advanced education in limnology. Because many students bring diverse undergraduate backgrounds (including biology, other sciences, math, or engineering) to this program, a bachelor's degree in biology is not required for admission. Admission requirements include approval of the Graduate Committee. The concept areas in this track include limnology, aquatic ecology, invasion ecology of freshwater systems, restoration and conservation ecology of reservoir systems, and environmental policy related to water quality and use. Students also must demonstrate familiarity with the scientific literature, and expertise in experimental design, in collection and analysis of data, and in interpretation of results in subject areas pertinent to the student's thesis research.

The purpose of the general *M.A. degree in Biology* is to provide students with advanced education in either ecology and evolutionary biology, or molecular, cellular, and developmental biology. This non-thesis degree emphasizes a broader exposure to biology through course work than is possible in the more-specialized M.S. degrees, where students focus on a specialized research topic. The majority of course work is in Biology, although graduate courses in allied areas (e.g., Biomedical Studies, Health Sciences, Environmental Studies) may be taken with approval of the student's committee and graduate program director. The concept areas for M.A. students specializing in ecology and evolutionary biology include ecology and environmental science, structure and function, and evolution. The concept areas for students specializing in molecular, cellular, and developmental biology include cell and molecular biology, genetics, and evolution.

The purpose of the M.A. degree in Biology with a health profession concentration is to provide advanced education in biological topics specific for students pursuing a professional career in health care. This degree program is expected to be completed in a single year to serve students applying for health-related graduate programs. The student will select an intensive research topic that will be guided by a research mentor that will culminate with a required research seminar and defense. This research topic will be developed through taking 5 to 6 hours of Independent Studies (BIO 5V90) with a selected mentor. In addition to the core curriculum, students will select approved courses from "essential" areas that are consistent with a general biology degree and pre-health training that is important to the future of medical education. These areas include: Cellular Foundation, Genetics, and Disease Etiology and Human Response. Students will take at least one course from each of these areas as they complete the course work requirement for the degree. No more than 12 hours may be taken at the 4000 level. The

following are current courses that apply to these essential areas: 1) Cellular Foundation- BIO 4107, BIO 4108, BIO 4303, BIO 4307, BIO 4308, BIO 4426, 2) Genetics – BIO 4106, BIO 4306, BIO 4330, BIO 5306, BIO 5311, BIO 5400, BIO 5425, and 3) Disease Etiology and Human Response – BIO 4104, BIO 4123, BIO 4304, BIO 4323, BIO 4401, BIO 5302, BIO 5303, BIO 5310, BIO 5401. Other graduate courses in biology may be taken as electives in addition to courses in these areas.

INSTITUTE OF BIOMEDICAL STUDIES

Graduate Program Director: Christopher J. Kearney

The M.S. and Ph.D. degrees are offered in the Institute of Biomedical Studies, an interdisciplinary program involving faculty from the Departments of Biology, Chemistry and Biochemistry, Environmental Science, Human Health and Performance, Philosophy, and Psychology and Neuroscience in Waco and from the Baylor University Medical Center, and the Mary Crowley Medical Research Center in Dallas.

Admission

An undergraduate degree (B.S. or B.A.) in a relevant discipline in the biomedical sciences including (but not limited to) biochemistry, biology, chemistry, or immunology is required for admission. The GRE General Test is also required. Recommended undergraduate course work includes advanced courses in Biochemistry, Molecular Biology, Cell/Developmental Biology, Immunology, and Microbiology.

Degree Requirements

M.S. Requirements: A minimum of thirty semester hours and successful completion of an M.S. thesis. A person may elect, instead, to obtain a non-thesis degree by completing thirty-six semester hours, eighteen of which are at or above the 5000 level.

Ph.D. Requirements: A minimum of seventy-eight semester hours. Additional requirements include a Ph.D. preliminary examination and completion of the Ph.D. dissertation. There is no foreign language requirement.

Committees: The Dissertation or Thesis Committee will be under the direction of the faculty member who directs the research. In either case the research project and its successful completion must be fully acceptable to the Director of the Institute and to all members of the Dissertation or Thesis Committee.

Curriculum

The curriculum will be tailored to each individual student's need as determined by the student's Advisory Committee, and agreed upon by the Graduate Program Director.

MASTER OF SCIENCE

Thesis Option

A minimum of thirty semester hours is required, including a minimum of twelve semester hours of 5000-level work (excluding BMS 5V99, BMS 5V95, and BMS 5100).

Required Courses		**sem. hrs.**
BMS 5V99	Master's Thesis	6
BMS 5100	Biomedical Seminar Required each semester. A maximum of three semester hours will count toward the M.S. degree.	3
Electives (5000-level or above excluding 5V95, 5V99, 5100)		12
Electives (4000-level or above excluding 5100, 5V99)		9
Total		**30**

Non-Thesis Option

A minimum of thirty-six semester hours is required, including a minimum of eighteen semester hours at the 5000-level (excluding BMS 5100).

BMS 5100	Biomedical Seminar Required each semester. A maximum of three semester hours will count toward the M.S. degree.	3
Electives (5000-level or above excluding 5V95, 5V99, 5100)		18
Electives (4000-level or above excluding 5100, 5V99)		15
Total		**36**

DOCTOR OF PHILOSOPHY

A minimum of seventy-eight semester hours is required for the Ph.D.

Required Courses		**sem. hrs.**
BMS 5100	Biomedical Seminar	6
	Required every semester. Content is to change from term to term. Only six semester hours are to count toward the Ph.D. degree.	
BMS 6V99	Dissertation	12
Electives (5000-level or above excluding 5100, 5V95, 6V99)		18
Electives (4000-level or above excluding 5100, 6V99)		12
Total		**48**

The final 30 hours required for the Ph.D. will consist of dissertation (6V99) or other course work.

HANKAMER SCHOOL OF BUSINESS

Associate Dean for Graduate Programs: Tim Kayworth

MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration degree is delivered in different formats tailored to meet the student's career aspirations and schedule.

The full-time MBA is a broad-based curriculum that integrates across functional areas and provides multiple opportunities for students to apply classroom material in real-world situations. The program consists of fifty-three or fifty-four hours of course work over seventeen months that includes four hours of Business Frameworks, thirty-four core hours and fifteen elective hours with an optional international componenet. The full-time MBA is delivered on campus in Waco. A specialization in Healthcare Administration is available.

The Executive MBA is designed for the mid-career professional seeking to expand career opportunites. The collaborative learning environment produces business leaders with recognized integrity, superior theoretical knowledge, and practical skills of modern global business. The EMBA consists of forty-eight hours of course work over 21 months that includes active learning experiences in Washington, D.C. and one international trip. The EMBA is delievered in Dallas or Austin. A specialization in Healthcare Administration is available.

The Online MBA is an accelerated program that can be completed in 12-16 months. The same acclaimed faculty as on campus teach the online courses that are delivered in seven-week modules with an asynchronous format. The OMBA helps students leverage their graduate education and professional experience to further their career while continuing to work full-time. The OMBA consists of forty-eight hours of coursework that is delivered online. An additional 12 hours of coursework is required for non-BBA degree holders.

Admission

1. See general requirements.
2. Applicants for admission to graduate study in business make application to the Graduate School. Applications are forwarded to the Hankamer School of Business where they are evaluated by the Associate Dean for Graduate Programs. Applications are returned to the Dean of the Graduate School for final evaluation.
3. Applicants must have a record of undergraduate study and experience that is predictive of success in graduate study.
4. Applicants who do not have a bachelor's degree in Business Administration may be required to take Business Foundations-Business Law (BL 5104).
5. Students enrolled in the integrated BBA/MAcc and BBA/MTax degree programs must meet all requirements for admission to graduate school except the requirement for the bachelor's degree. Students should apply to graduate school during their senior year. (See Undergraduate Catalog for Accounting Major.)
6. Full-time MBA students without a minimum of two years of full-time work experience are required to complete a three credit-hour internship or healthcare residency. Students may work with the Director of Career Management for assistance in securing an internship position or with the Robbins Institute for Health Policy and Leadership for assistance in securing a healthcare residency.
7. The primary criterion for evaluating students applying to the Executive Master of Business

Administration (Executive MBA) is successful managerial or professional work experience. The GMAT or GRE examination is not required. In special circumstances, however, the GMAT or GRE examination may be required at the discretion of the admission committee. Applicants should contact the Director of the Executive MBA program for requirements specific to their situation.

8. The Online MBA requires a complete work history with start and end dates, accomplishments, and skills acquired including any managerial experience. For students with four years of supervisory leadership, or project management experience, the GRE/GMAT may be waived as an admission requirement.
9. Applicants to the Online MBA whose undergraduate degree is not in business or not a business degree from an AACSB-accredited institution must take additional business foundation courses, increasing the total hours required for completion from forty-eight to sixty.
10. MBA application deadlinews:
    a. Full time MBA - May 15 for summer semester
    b. EMBA - June 15 for fall semester; November 1 for spring semester
    c. OMBA - April 9 for summer 1 term; May 29 for summer 2 term; July 31 for fall 1 term; September 24 for fall 2 term; December 3 for spring 1 term; February 11 for spring 2 term.
11. International students who are required to take the Test of English must attain one of the following scores:
    a. Test of English as a Foreign Language (TOEFL) - a minimum score of 600 (paper-based), 250 (computer-based), or 100 (internet-based) is required.
    b. International English Language Testing System (IELTS) - a minimum score of 7.0 is required.
    c. Pearson Test of English Academic (PTE Academic) - a minimum score of 68 is required.

Requirements

The general Master of Business Administration degree is awarded after the successful completion of the requirements listed below.

A thesis option to the MBA degree is available. Students interested in this option should see the Associate Dean for Graduate Programs in the Business School.

All course work must be in graduate level courses.

Resident study of at least nine months at Baylor University is required. Not more than six hours of work may be transferred from another college or university. No credit will be given for work done by extension or correspondence, or for courses counted already toward a bachelor's or another master's degree.

All MBA candidates must earn an average grade of "B" (3.0) or higher in the thirty-eight hours of core courses. If course substitutions are made for any of these core courses, the substituted course grade is included in the average. Students not having an overall average of 3.0 or higher in the core courses are required to repeat one or more of the courses in which a grade below "B" was earned in order to increase their average to 3.0. When a core course is repeated, the new grade substitutes for the old grade in the core calculated GPA. In some cases, more advanced work may be prescribed in place of the course on which a grade below "B" was earned. Both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

Early in the semester in which the degree is to be awarded, candidates must complete an Intent to Graduate form found on the Graduate School website in application for the degree.

MASTER OF BUSINESS ADMINISTRATION

GENERAL BUSINESS

I.	**Required Framework Courses**		**4 sem. hrs.**
	ACC 5121	Account Planning	
	FIN 5161	Corporate Finance-Planning	
	MIS 5145	Excel Modeling Fundamentals	
	QBA 5131	Quantitative Methods for Decision Making: Part 1	
	Required Core Courses		**34 sem. hrs.**
	ACC 5300	Accounting Tools for Decision Making	

BUS	5101	Focus Firm I
BUS	5102	Focus Firm II
BUS	5111	Professional Career Development #1
BUS	5112	Professional Career Development #2
BUS	5390	Management Communication
ECO	5340	Economic Tools for Management Decision Making
FIN	5360	Corporate Finance
MGT	5310	Management of Organizational Behavior
MGT	5320	Manufacturing and Service Operations
MGT	5385	Strategic Management and Business Policy
MKT	5310	Seminar in Marketing Strategy
QBA	5330	Business Analytics for Decision Making

Choose one MIS course from:

MIS	5342	Business Intelligence or
MIS	5345	Decision Making with Excel or
MIS	5346	Data Warehousing or
MIS	5355	Management of Information Systems

II. Other Requirements **15-16 sem. hrs.**

- 3-hour internship required for students without 2 years of full-time work experience
- Total of 12 hours of electives or in combination of above
- Students who do not have an undergraduate degree in Business Administration will be required to take BL 5104 Business Foundations-Business Law

Total **53 sem. hrs.**

MINOR IN BUSINESS ADMINISTRATION

For a graduate minor in business, students must complete any four graduate level business courses (including the required prerequisites). These courses must be completed in no less than three separate disciplines.

MASTER OF BUSINESS ADMINISTRATION
HEALTHCARE ADMINISTRATION SPECIALIZATION

Academic Director: Steve Green
Administrative Director: Tom Haines
Associate Dean for Graduate Programs: Tim Kayworth

The Master of Business Administration, Healthcare Administration Specialization provides those who posess a passion for serving others with the requisite quantitative and qualitative skills to prepare them for early career executive positions in health industry organizations. Healthcare administrators are integral to the management of medical organizations including health systems, hospitals, provider practices, consulting firms, insurance companies, and long-term care facilities. Today's healthcare leaders must be prepared to lead and manage dynamic, complex organizations with a servant's heart, a commitment to their communities, and a strong business acumen. The Healthcare Administration Specialization is designed to combine the quantitative strengths of the MBA and the specialized curriculum focused on the healthcare industry with an emphasis on experiential learning and principle-centered leadership.

An integral part of the Heatlhcare Administration Specialization is the administrative residency. All students are required to complete the residency and placements are made recognizing that placing the right student with the right preceptor at the right site is vital to a successful residency. During this nine-month experience in progressive healthcare organizations located across the United States, students develop a mentoring relationship with their preceptor, observe and develop an understanding of the organization's mission, structure and operations, and apply and test the theory and tools acquired in the didactic curriculum.

Near the end of the residency, students will return to campus for a capstone course which will include opportunities for sharing their residency experiences, to engage in a case analysis, and to complete comprehensive oral examinations.

Professional development is another key element of the program. During the 21-month program,

students will be introduced to professional organizations providing lifelong education programs and networking opportunities and will be given the opportunity to attend a major national or state health education event. Through the Executive Leadership in Healthcare series, students will be exposed to senior leaders with diverse backgrounds and serving in a variety of sectors within healthcare.

Admission to the MBA Healthcare Administration Specialization is contingent on admission to the Master of Business Administration degree program. (See Master of Business Administration admission requirements.) The degree requirements are listed below:

Business Frameworks		**4 sem. hrs.**
ACC 5121	Accounting Planning	1
FIN 5161	Corporate Finance Planning	1
MIS 5145	Excel Modeling Fundamentals	1
QBA 5131	Quantitative Methods for Decision Making: Part I	1
Core I Fall		**18 sem. hrs.**
ACC 5300	Accounting Tools for Decison Making	3
BUS 5390	Management Communication	3
HPA 5001	Executive Leadership in Healthcare I	0
HPA 5310	Healthcare Administration	3
MGT5310	Management of Organizational Behavior	3
MKT5310	Seminar in Marketing Strategy	3
QBA 5330	Business Analytics for Decision Making	3
Core II Spring		**19 sem. hrs.**
ECO 5340	Economic Tools for Management Decision Making	3
FIN 5360	Corporate Finance	3
HPA 5002	Executive Leadership in Healthcare II	0
HPA 5126	Social Issues in Healthcare Administration	1
HPA 5350	Health Economics	3
MGT5320	Manufacturing and Service Operations	3
MGT5385	Strategic Management	3
MIS 5355	Management of Information Systems	3
Core Summer II		**10 sem. hrs.**
HPA 5003	Executive Leadership in Healthcare III	0
HPA 5120	Preparation for Healthcare Administrative Residency	1
HPA 5330	Healthcare Law and Ethics	3
HPA 5367	Managerial Epidemiology	3
HPA 5380	Healthcare Finance	3
Fall II		**3 sem. hrs.**
HPA 5V90	Healthcare Administrative Internship	3
Core III Spring		**4 sem. hrs.**
HPA 5V90	Healthcare Administrative Internship	3
HPA 5121	Current Issues in Healthcare Administration	1
Total		**58 sem. hrs.**

EXECUTIVE MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration degree (Executive Program – EMBA) is designed for full-time working professionals who hold management-level positions with their respective firms. Admission requires a personal interview before the graduate business admissions committee. The EMBA is a "lock-step" (sequentially ordered) set of course offerings. Students enter either in fall or spring and progress through the program together, with all students taking the same courses. Two EMBA programs are offered, a weekend program in Dallas and an evening program in Austin. Both programs require two years for completion and consist of the following:

BUS 5201 In-Residence I: Managing in the 21st Century

MGT	5310	Management of Organizational Behavior
QBA	5330	Evidence Based Decision Making
ECO	5315	Microeconomic Theory and Business Decisions
MGT	5340	Negotiation and Conflict Resolution
MIS	5152	Aligning IT with the Business Enterprise
BUS	5302	In Residence II: International Business and the Public Policy Process
BL	5201	Business Law: Application & Strategy
ACC	5305	Financial Accounting
FIN	5260	Financial Decision Making
BUS	5V98	Special Studies in Business
FIN	5263	Managing for Value Creation
MGT	5136	Human Resources Management
FIN	5220	Private Equity Investing
ACC	5320	Managerial Accounting
MGT	5320	Manufacturing and Service Operations
MKT	5310	Seminar in Marketing Strategy
ECO	5110	Key Global Economic and Strategic Issues
MGT	5406	Global Strategic Management I
MGT	5307	Global Strategic Management II

Total **48 sem. hrs**.

All Executive MBA courses are considered required courses. No grade below a "C" is acceptable in a required course. If a grade of "C-", "D+", "D", "D-", or "F" is made in a required course, the student must repeat the course and earn a grade of "C" or higher. When a course is repeated, both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

All Executive MBA students must maintain a minimum overall grade point average of 3.0 during each semester. Any Executive MBA student whose overall grade point average falls below a 3.0 during any semester, will be placed on probation for the next nine semester hours of course work (see Probation in the General Information section).

To graduate, all Executive MBA students must have a minimum overall grade point average of 3.0.

Early in the semester in which the degree is to be awarded, candidates must file an Intent to Graduate form with the Graduate School in compliance with graduation requirements.

EXECUTIVE MASTER OF BUSINESS ADMINISTRATION

Healthcare Specialization

The Executive Master of Business Administration is designed for full-time working professionals who hold management-level positions with their respective companies in the healthcare industry. Admission requires a personal interview before the graduate business admissions committee. The EMBA Healthcare is a "lock-step" (sequentially ordered) set of course offerings. Students enter either in the fall or spring and progress through the program together, with all healthcare students taking the same courses. The program is completed within 21 months and consists of the following courses.

BUS	5201	In-Residence I: Managing in the 21st Century
MGT	5310	Management of Organizational Behavior
QBA	5330	Evidence Based Decision Making
ECO	5315	Microeconomic Theory and Business Decisions
MGT	5340	Negotiation and Conflict Resolution
HPA	5150	Aligning IT Healthcare Enterprises
HPA	5250	Analysis of Healthcare Economic Conditions
BUS	5302	In Residence II: International Business and the Public Policy Process
ACC	5305	Financial Accounting
FIN	5260	Financial Decision Making
BUS	5V98	Special Studies in Business
FIN	5263	Managing for Value Creation
HPA	5220	Healthcare Law: Application and Strategy
MGT	5136	Human Resources Management
HPA	5280	Healthcare Financial Management
ACC	5320	Managerial Accounting
HPA	5230	Healthcare Operations

HPA	5320	Marketing for Healthcare Professionals
MGT	5406	Global Strategic Management I
MGT	5307	Global Strategic Management II
Total		**48 sem. hrs.**

All Executive MBA Healthcare courses are considered required courses. No grade below a "C" is acceptable in a required course. If a grade of "C-", "D+", "D", "D-", or "F" is made in a required course, the student must repeat the course and earn a grade of "C" or higher. When a course is repeated, both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

All Executive MBA Healthcare students must maintain a minimum overall grade point average of 3.0 during each semester. Any Executive MBA Healthcare student whose overall grade point average falls below a 3.0 during any semester, will be placed on probation for the next nine semester hours of course work (see Probation in the General Information section).

To graduate, all Executive MBA Healthcare students must have a minimum overall grade point average of 3.0.

Early in the semester in which the degree is to be awarded, candidates must file an Intent to Graduate form with the Graduate School in compliance with graduation requirements.

ONLINE MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration degree (Online Program - OMBA) is an accelerated online option designed for working professionals. Students can complete their MBA in as few as 12-16 months. The Online MBA offers the same acclaimed faculty and education as on campus and provides multiple opportunities for students to apply classroom material in real-world situations.

Students admitted to the MBA program without an undergraduate BBA degree from an AACSB accredited school must complete the Business Foundations courses (ACC 5301, QBA 5302, FIN 5203, BL 5104, ECO 5305) successfully, or its undergraduate course work equivalent in the study of accounting, micro and macro economics, finance, and statistics with a grade of "B" or better in each course.

The general Master of Business Administration degree is awarded after the successful completion of the requirements listed below. A thesis option to the MBA degree is available. Students interested in this option should see the Associate Dean for Graduate Programs in the Business School.

All Online MBA students must maintain a minimum overall grade point average of 3.0 during each semester (a semester consists of both terms in summer, fall, or spring). Any Online MBA student whose overall grade point average falls below a 3.0 during the semester, will be placed on probation for the next eight semester hours of course work (see Probation in the General Information section).

No work may be transferred from another college or university. All Online MBA courses are considered required courses with the exception of marketing where a student will choose either MKT 5410 or MKT 5440. No grade below a "C" is acceptable in a required course. If a grade of "C-", "D+", "D", "D-", or "F" is made in a required course, the student must repeat the course and earn a grade of "C" or higher. When a course is repeated, both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes. To graduate, all Online MBA students must have a minimum overall grade point average of 3.0.

Early in the semester in which the degree is to be awarded, candidates must file an Intent to Graduate form with the Graduate School in compliance with graduation requirements.

The program consists of 13-18 courses (48-60 hours) that are offered in six terms each year, two in the summer, two in the fall and two in the spring. Most courses are offered twice per year and consists of the following:

ACC	5301	Business Foundations – Accounting (Required for students without business undergraduate degree)
QBA	5302	Business Foundations – Statistics (Required for students without business undergraduate degree)
FIN	5203	Business Foundations – Finance (Required for students without business undergraduate degree)
BL	5104	Business Foundations – Business Law (Required for students without business undergraduate degree)
ECO	5305	Business Foundations – Economics (Required for students without business undergraduate degree)
ACC	5420	Managerial Accounting
BUS	5421	Ethical Leadership
ECO	5415	Economics for Managers

FIN	5460	Fundamentals of Applied Finance
MIS	5450	Managing Information Technology in the Business Enterprise
MGT	5402	Negotiations
MGT	5410	Managing for Higher Performance
MGT	5420	Manufacturing and Service Operations
MGT	5485	Strategic Management and Business Policy
MKT	5410	Strategic Marketing or
MKT	5440	Strategic Brand Management
MKT	5460	Marketing Analysis
QBA	5435	Business Statistics

JOINT MASTER OF BUSINESS ADMINISTRATION/ MASTER OF DIVINITY

Associate Dean for Graduate Business Programs: Tim Kayworth
Associate Dean for Truett Seminary: Dennis Tucker

The MBA/MDiv joint degree is designed to prepare ministers who can implement financial strategies, transform organizational behavior, and ensure financial integrity in their congregations and/or non-profit organizations. Students interested in a career requiring complementary skills in both business and Ministry may complete the Master of Divinity and MBA degrees concurrently. By proper course selection of courses, students can save up to 35 hours compared to the normal requirements of the two separate degrees. Students should consult with advisors in both the seminary and business to determine the best sequence of courses.

Admission

Students must apply and be accepted separately into both programs. The GMAT or GRE exam is required for the MBA degree.

Requirements

Candidates for the joint MBA/ Master of Divinity degree must complete 35 core hours for MBA and 78 core hours for Master of Divinity. By proper selection of course work, it may be possible to reduce the requirements of the joint degree by up to 35 hours compared to the normal requirements of the two degrees completed separately. Since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree. Students are encouraged to contact appropriate advisors in each program for further details.

I. Required Framework Courses		**4 sem. hrs.**
ACC	5121	Accounting Planning
FIN	5161	Corporate Finance Planning
MIS	5145	Excel Modeling Foundations
QVA	5131	Quantitative Methods for Decision Making: Part I
II. Required Core Courses		**31 sem. hrs.**
ACC	5300	Accounting Tools for Decision Making
BUS	5101	Focus Firm I
BUS	5390	Management Communication
ECO	5340	Economic Tools for Management Decision Making
FIN	5360	Corporate Finance
MGT	5310	Management of Organizational Behavior
MGT	5320	Manufacturing and Service Operations
MGT	5385	Strategic Management and Business Policy
MKT	5310	Seminar in Marketing Strategy
QBA	5330	Business Analytics for Decision Making

Students who do not have an undergraduate degree in Business Administration are required to take BL 5104 Business Foundations-Business Law.

MIS requirement, choose one from:

MIS	5342	Business Intelligence
MIS	5345	Decision Making with Excel
MIS	5346	Data Warehousing, or
MIS	5355	Management of Information Systems

Total 35 sem. hrs.

JOINT MASTER OF BUSINESS ADMINISTRATION/ MASTER OF ENGINEERING

Associate Dean for Graduate Business Programs: Tim Kayworth
Graduate Directors in Engineering: Ian Gravagne

Students interested in a career requiring complementary skills in both business and engineering may complete the Master of Engineering and MBA degrees concurrently. By proper selection of courses, students can save up to 21 hours in the joint degree compared to the individual requirements of the two separate degrees. Students should consult with advisors in both engineering and business to determine the best sequence of courses.

Master of Engineering students from industry may, with approval of their advisor, select a project that is relevant to their work responsibilities.

Admission

Students must apply and be accepted separately into both programs. The MBA degree requires either the GMAT or GRE exams.

Requirements

Candidates for the joint Master of Engineering/MBA degree must complete 37 hours for MBA and 18 core engineering hours. In addition, the student must complete an additional 15 hours of electives. By proper selection of electives it may be possible to reduce the requirements of the joint degree by up to 21 hours compared to the normal requirements of the two degrees completed separately. This efficiency is achieved by proper selection of business electives for the 15 business course credits allowed for the Master of Engineering program and by a six-credit reduction of the MBA elective requirements reflecting recognition of the additional graduate work in completing the Master of Engineering. Since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree. Students are encouraged to contact appropriate advisors in each program for further details.

I. Required Framework Courses		**4 sem. hrs.**
ACC 5121	Accounting Planning	
FIN 5161	Corporate Finance Planning	
MIS 5145	Excel Modeling Foundations	
QVA 5131	Quantitative Methods for Decision Making: Part I	
II. Required MBA Core Courses		**33 sem. hrs.**
ACC 5300	Accounting Tools for Decision Making	
BUS 5101	Focus Firm I	
BUS 5111	Professional Career Development I	
BUS 5112	Professional Career Development II	
BUS 5390	Management Communication	
ECO 5340	Economic Tools for Management Decision Making	
FIN 5360	Corporate Finance	
MGT5310	Management of Organizational Behavior	
MGT5320	Manufacturing and Service Operations	
MGT5385	Strategic Management and Business Policy	
MKT5310	Seminar in Marketing Strategy	
QBA 5330	Business Analytics for Decision Making	

Students who do not have an undergraduate degree in Business Administration are required to take BL 5104 Business Foundations-Business Law.

MIS requirement, choose one from:	
MIS 5342	Business Intelligence
MIS 5345	Decision Making with Excel
MIS 5346	Data Warehousing, or
MIS 5355	Management of Information Systems

Total 37-38 sem. hrs.

III.Core Engineering **18 sem. hrs.**

IV. Required ME Electives **15 sem. hrs.**

JOINT MASTER OF BUSINESS ADMINISTRATION/ MASTER OF SCIENCE IN INFORMATION SYSTEMS

Students interested in expanding their breadth of business knowledge while concurrently obtaining an in-depth knowledge of information systems may be interested in pursuing the MBA and MSIS degrees concurrently. Within the MSIS degree program, students have the opportunity to develop a program of study that will help them achieve their specific career goals. Prior background in information systems or computer science is not required for admission.

Admission

Students must apply and be accepted separately into both programs.

Requirements

Students receive twelve hours of credit toward their elective requirement for the MBA upon the successful completion of the required MSIS courses and nine hours of credit toward their MSIS upon the successful completion of the required MBA courses. Thus, MBA/MSIS students complete twenty-seven hours of information systems courses and 47 hours of business courses for a total of seventy-one hours for students pursuing the non-thesis track and sixty-five hours for those pursuing the thesis track. Since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree.

I. Required Framework Courses **4 sem. hrs.**

ACC 5121	Accounting Planning
FIN 5161	Corporate Finance Planning
MIS 5145	Excel Modeling Foundations
QVA 5131	Quantitative Methods for Decision Making: Part I

Required MBA Core Courses **34 sem. hrs.**

ACC 5300	Accounting Tools for Decision Making
BUS 5101	Focus Firm I
BUS 5102	Focus Firm II
BUS 5111	Professional Career Development #1 Professional
BUS 5112	Career Development #2 Management
BUS 5390	Communication
ECO 5340	Economic Tools for Management Decision Making
FIN 5360	Corporate Finance
MGT5310	Management of Organizational Behavior
MGT5320	Manufacturing and Service Operations
MGT5385	Strategic Management and Business Policy
MIS 5355	Management of Information Systems
MKT5310	Seminar in Marketing Strategy
QBA 5330	Business Analytics for Decision Making

II. Other MBA Requirements **9-10 sem. hrs.**

- 3-hour internship required for students without 2 years of full-time work experience. Students with more than 2 years can choose to take an elective.
- Total of 6 hours of Graduate Business electives or in combination of above
- Students who do not have an undergraduate degree in Business Administration will be requried to take BL 5104 Business Foundations-Business Law

III. Required MSIS Courses **24 sem. hrs. without thesis; 18 hrs. with thesis**

MBA/MSIS students are required to complete MIS 5355.

All MSIS students must demonstrate competency in four core content areas; programming, systems analysis and design, database, and networking and telecommunications. This competency may be shown by previous course work (for those with an undergraduate degree in information systems or computer science) or by completion of specific courses (MIS 5301, MIS 5315 or 5317, MIS 5335, MIS 5340, and ISEC 5305) as part of their MSIS program.

Students on the non-thesis track with less than 2 years of full-time work experience will be required to take MIS 5V95 Internship (3 hours).

For non-thesis students, six hours of MIS or ISEC electives will be chosen in consultation with your MSIS advisor; for thesis students, six hours of MIS, ISEC, or business electives will be chosen.

Any course taken cannot count both toward the 47 hours of business courses and 27 (non-thesis) or 21 (thesis) MIS hours.

Total 71 sem. hrs. without thesis; 65 hrs. with thesis

JOINT JURIS DOCTOR/MASTER OF BUSINESS ADMINISTRATION

Associate Dean of the Law School: Leah W. Teague
Associate Dean for Graduate Business Programs: Tim Kayworth

Students interested in a career requiring complementary skills in both law and business may complete the JD and MBA degrees concurrently. Law courses substitute for electives in the MBA curriculum described in this catalog, and business courses substitute for twelve quarter hours (one quarter) in the JD curriculum. Completing the combined program effectively "saves" one semester and one quarter of study. Students should consult with advisors in both the Law School and Business School to determine the best sequence of courses.

Admission

Students must apply and be accepted separately into both programs. Therefore, both the GMAT and LSAT exams are required.

Requirements

Students receive twelve hours credit toward their JD upon the successful completion of the MBA required courses and credit toward their elective requirement for the MBA upon successful completion of Law School course work. Thus, JD/MBA students complete 114 quarter hours of law and thirty-two semester hours of graduate business. Since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree.

The following lists the required MBA courses for the joint degree.

Required Framework Courses **4 sem. hrs.**

ACC	5121	Account Planning
FIN	5161	Corporate Finance Planning
MIS	5145	Excel Modeling Fundamentals
QBA	5131	Quantitative Methods for Decision Making I

Requred Core Courses **30-31 sem. hrs.**

ACC	5300	Accounting Tools for Decision Making
BUS	5101	Focus Firm I
BUS	5390	Management Communication OR BOTH BUS 5111 AND BUS 5112
ECO	5340	Economic Tools for Management Decision Making
FIN	5360	Corporate Finance
MGT	5310	Management of Organizational Behavior
MGT	5385	Strategic Management and Business Policy
MKT	5310	Seminar in Marketing Strategy
QBA	5330	Business Analytics for Decision Making

MIS requirement, choose one from:

MIS	5342	Business Intelligence or
MIS	5345	Decision Making with Excel or
MIS	5346	Data Warehousing or
MIS	5355	Management of Information Systems

Total 34-35 sem. hrs.

JOINT MASTER OF BUSINESS ADMINISTRATION/ MASTER OF SOCIAL WORK

Associate Dean for Graduate Business Programs: Tim Kayworth
Associate Dean for Academic Affairs: David Pooler

The MBA/MSW joint degree is designed to educate leaders who are prepared to effectively implement financial strategies, transform organizational behavior, and activate marketing strategies to sustain and improve human services organizations. The joint degree will groom social work and business administration graduates to serve as administrators, executive directors, and innovators in human service organizations. In addition, the MSW/MBA will equip and encourage graduates to develop human service organizations nationally and internationally, serving in developing countries or underserved urban areas where human needs are great and resources are scarce. Students interested in a career requiring complementary skills in both business and Social Work may complete the Master of Social Work and MBA degrees concurrently. By proper selection of courses, students can save up to 29 hours compared to the normal requirements of the two separate degrees. Student should consult with advisors in both social work and business to determine the best sequence of courses.

Admission

Students must apply and be accepted separately into both programs. The GMAT or GRE exam is required for the MBA degree. The Master of Social Work offers two degree plans, the Advanced Standing for those who have completed a BSW degree from an accredited program or the Standard for those without the BSW degree.

Requirements

Candidates for the joint MBA/Master of Social Work degree must complete 35 core hours for MBA and 51 core hours for Social Work if admitted to Social Work under the standard degree plan or 29 core Social Work hours if admitted under the advanced degree plan. By proper selection of course work, it may be possible to reduce the requirements of the joint degree by up to 29 hours compared to the normal requirements of the two degrees completed separately. Since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree. Students are encouraged to contact appropriate advisors in each program for further details.

I. Required Framework Courses **4 sem. hrs.**

ACC 5121	Accounting Planning
FIN 5161	Corporate Finance Planning
MIS 5145	Excel Modeling Foundations
QVA 5131	Quantitative Methods for Decision Making: Part I

II. Required MBA Core Courses **31-32 sem. hrs.**

ACC 5300	Accounting Tools for Decision Making
BUS 5101	Focus Firm
BUS 5390	Management Communication
ECO 5340	Economic Tools for Management Decision Making
FIN 5360	Corporate Finance
MGT 5310	Management of Organizational Behavior
MGT 5320	Manufacturing and Service Operations
MGT 5385	Strategic Management and Business Policy
MKT 5310	Seminar in Marketing Strategy
QBA 5330	Business Analytics for Decision Making

Students who do not have an undergraduate degree in Business Administration are required to take BL 5104 Business Foundations-Business Law.

MIS requirement, choose one from:

MIS 5342	Business Intelligence
MIS 5345	Decision Making with Excel
MIS 5346	Data Warehousing
MIS 5355	Management of Information Systems

III. Core Social Work

Standard degree plan	**60 sem. hrs.**
Advanced degree plan	**35 sem. hrs.**

MASTER OF ACCOUNTANCY

Director of Graduate Accounting Programs and Advisor: Gia M. Chevis
Associate Dean for Graduate Business Programs: Tim Kayworth

The Master of Accountancy program provides students with the technical background and professional skills necessary for successful careers in public accounting, industry, and government. The program consists of eighteen semester hours of accounting course work, and fifteen semester hours of business electives, for a total of thirty-three semester hours. Other than these general requirements there are no specified courses within the degree program, allowing each student to tailor a program to meet his or her specific career objectives.

The Master of Accountancy degree also assists students in meeting the requirements of the Texas Public Accountancy Act of 1991 and similar professional certification requirements in other states. The Act requires that a candidate for the Uniform Certified Public Accountant Examination after September 1, 1997, show completion of a baccalaureate or graduate degree program with completion of courses recognized by the Texas State Board of Accountancy reflecting no fewer than 150 semester hours.

Admission

A baccalaureate degree with a major in accounting, or its equivalent, is required. The application for admission is processed in the same manner as other graduate business programs; all applicants must submit a GMAT score. International applicants must submit a TOEFL score unless their baccalaureate degree is from an accredited U.S. university.

Requirements

Curriculum for the Master of Accountancy Degree*	sem. hrs.
Graduate Accounting Courses*	18
Graduate Business Electives*	15
Total Graduate Hours	**33**

**All course selections must have the approval of the Director of Graduate Accounting Programs.*

All MAcc candidates must earn an average grade of "B" (3.0) or higher in eighteen hours of graduate accounting courses. Students not having an overall average of 3.0 or higher in these courses are required to repeat one or more of the courses in which a grade below "B" was earned in order to increase their average to 3.0. When an accounting course is repeated, the new grade substitutes for the old grade in the calculated accounting GPA. In some cases, more advanced work may be prescribed in place of the course on which a grade below "B" was earned. Both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

JOINT BACHELOR OF BUSINESS ADMINISTRATION/ MASTER OF ACCOUNTANCY

Director of Graduate Accounting Programs and Advisor: Gia M. Chevis
Associate Dean for Graduate Business Programs: Tim Kayworth

Students pursuing a Bachelor of Business Administration degree with a major in accounting may complete the BBA and MAcc degrees concurrently. Under the joint program, up to seven semester hours of undergraduate business electives are waived for up to seven semester hours of graduate business electives. Since both degrees are awarded simultaneously and some undergraduate elective hours may be waived, generally all requirements in both programs must be completed in order to receive either degree.

Admission

Students must apply and be accepted into the Master of Accountancy program during their senior year. Students should consult with the Director of Graduate Accounting Programs to determine the appropriate timing of actual enrollment in the Master of Accountancy program.

Requirements

Curriculum for the BBA/MAcc Joint Degree	sem. hrs.
Undergraduate Arts and Sciences	41-53
Undergraduate Business Core	48
Undergraduate Accounting Major	18

Undergraduate Elective	As needed
Chapel (2 semesters)	N/A
Total Undergraduate	**117-124**

Note: A student choosing the minimal option for nine semester hours in a foreign language may need to take an additional elective to fulfill the minimum of 117 semester hours required for the B.B.A. degree. See a business school advisor if necessary.

Curriculum for the BBA/MAcc Joint Degree*	sem. hrs.
Graduate Accounting Courses*	18
Graduate Business Electives*	15
Total Graduate Hours	33
Total Combined Program	**150-157**

**All course selections must have the approval of the Director of Graduate Accounting Programs.*

All BBA/MAcc candidates must earn an average grade of "B" (3.0) or higher in eighteen hours of graduate accounting courses. Students not having an overall average of 3.0 or higher in these courses are required to repeat one or more of the courses in which a grade below "B" was earned in order to increase their average to 3.0. When an accounting course is repeated, the new grade substitutes for the old grade in the calculated accounting GPA. In some cases, more advanced work may be prescribed in place of the course on which a grade below "B" was earned. Both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

MASTER OF TAXATION

Director of Graduate Accounting Programs and Advisor: Gia M. Chevis
Associate Dean for Graduate Business Programs: Tim Kayworth

The Master of Taxation program seeks to provide students the technical background in taxation and related fields required for employment with public accounting firms, government agencies, or industry and commercial businesses. The program emphasizes an understanding of all major areas of tax authority, including the Internal Revenue Code, Treasury Regulations, administrative (IRS) interpretations, and judicial sources of tax law. This program should enable students to enter the accounting and tax profession prepared to analyze and to solve a variety of complex tax and business problems.

The Master of Taxation degree also assists students in meeting the requirements of the Texas Public Accountancy Act of 1991 and similar professional certification requirements in other states. The Act requires that a candidate for the Uniform Certified Public Accountant Examination after September 1, 1997, show completion of a baccalaureate or graduate degree program with completion of courses recognized by the Texas State Board of Accountancy reflecting no fewer than 150 semester hours.

Admission

A baccalaureate degree with a major in accounting, or its equivalent, is required. The application for admission is processed in the same manner as other graduate business programs; all applicants must submit a GMAT score. International applicants must submit a TOEFL score unless their baccalaureate degree is from an accredited U.S. university.

Requirements

Curriculum for the Master of Taxation Degree		sem. hrs.
ACC 5361	Corporate Taxation	3
ACC 5362	Partnership and S Corporation Taxation	3
ACC 5364	International Taxation	3
ACC 5365	Advanced Individual Taxation	3
ACC 5370	Tax Research	3
Graduate Accounting Elective		3
Graduate Business Electives*		15
Total Graduate Hours		**33**

**All business electives must have the approval of the Director of Graduate Accounting Programs*

All MTax candidates must earn an average grade of "B" (3.0) or higher in eighteen hours of graduate accounting courses. Students not having an overall average of 3.0 or higher in these courses are required

to repeat one or more of the courses in which a grade below "B" was earned in order to increase their average to 3.0. When an accounting course is repeated, the new grade substitutes for the old grade in the calculated accounting GPA. In some cases, more advanced work may be prescribed in place of the course on which a grade below "B" was earned. Both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

JOINT BACHELOR OF BUSINESS ADMINISTRATION/ MASTER OF TAXATION

Director of Graduate Accounting Programs and Advisor: Gia M. Chevis
Associate Dean for Graduate Business Programs: Tim Kayworth

Students pursuing a Bachelor of Business Administration degree with a major in accounting may complete the BBA and MTax degrees concurrently. Under the joint program, up to seven semester hours of undergraduate business electives are waived for up to seven semester hours of graduate business electives. Since both degrees are awarded simultaneously and some undergraduate elective hours may be waived, all requirements in both programs must be completed in order to receive either degree.

Admission

Students must apply and be accepted into the Master of Taxation program during their senior year. Students should consult with the Director of Graduate Accounting Programs to determine the appropriate timing of actual enrollment in the Master of Taxation program.

Requirements

Curriculum for the BBA/MTax Joint Degree	**sem. hrs.**
Undergraduate Arts and Sciences	41-53
Undergraduate Business Core	48
Undergraduate Accounting Major	18
Undergraduate Elective	As needed
Chapel (2 semesters)	N/A
Total Undergraduate	**117-124**

Note: A student choosing the minimal option for nine semester hours in a foreign language may need to take an additional elective to fulfill the minimum of 124 semester hours required for the B.B.A. degree. See a business school advisor if necessary.

Curriculum for the BBA/MTax Joint Degree		**sem. hrs.**
ACC 5361	Corporate Taxation	3
ACC 5362	Partnership and S Corporation Taxation	3
ACC 5364	International Taxation	3
ACC 5365	Advanced Individual Taxation	3
ACC 5370	Tax Research	3
Graduate Accounting Elective		3
Graduate Business Elective		15
Total Graduate Hours		**33**
Total Combined Program		**150-157**

**All course selections must have the approval of the Director of Graduate Accounting Programs.*

All MTax candidates must earn an average grade of "B" (3.0) or higher in eighteen hours of graduate accounting courses. Students not having an overall average of 3.0 or higher in these courses are required to repeat one or more of the courses in which a grade below "B" was earned in order to increase their average to 3.0. When an accounting course is repeated, the new grade substitutes for the old grade in the calculated accounting GPA. In some cases, more advanced work may be prescribed in place of the course on which a grade below "B" was earned. Both the original grade and the new grade for a repeated course will be included in the overall GPA for graduation purposes.

JOINT JURIS DOCTOR/MASTER OF TAXATION

Associate Dean of the Law School: Leah W. Teague
Director of Graduate Accounting Programs: Gia M. Chevis
Associate Dean for Graduate Business Programs: Tim Kayworth

Students interested in a tax career requiring complementary skills in both law and tax accounting may complete the JD and MTax degrees concurrently. Law courses substitute for twelve semester hours of course work (one semester) in the MTax curriculum and accounting courses substitute for twelve quarter hours of course work (one quarter) in the JD curriculum. Completing the combined program effectively "saves" one semester and one quarter of study. Students must consult with advisors in both the Law School and Business School to determine course substitutions and the best sequence of courses.

Admission

Students must apply and be accepted separately into both programs. Therefore, both the GMAT and LSAT exams are required. International applicants must submit a TOEFL score unless their baccalaureate degree is from an accredited U.S. university.

Requirements

Students receive twelve hours of credit toward their JD upon the successful completion of the required MTax courses and twelve hours of credit toward their elective requirement for the MTax upon successful completion of Law School course work. Thus, JD/MTax students complete 114 quarter hours of law and twenty-one semester hours of graduate tax. Since both degrees are awarded simultaneously, all requirements in both schools must be completed in order to receive either degree.

While completing the JD curriculum, students concurrently enroll in the following classes:

Curriculum for the JD/MTax Joint Degree		**sem. hrs.**
ACC 5361	Corporate Taxation	3
ACC 5362	Partnership and S Corporation Taxation	3
ACC 5364	International Taxation	3
ACC 5365	Advance Individual Taxation	3
ACC 5370	Tax Research	3
Graduate Business Electives*		6
Total Graduate Hours		**21**

**Must be approved by the Director of Graduate Accounting Programs*

DEPARTMENT OF ECONOMICS

Chairperson: Charles North
Graduate Program Director: Van Pham

Description of Degree Programs

The Department of Economics offers the Master of Science in Economics. This degree program prepares students for doctoral training in economics and related disciplines and for employment in the private and public sectors in the U.S. and abroad. The program includes core economics and field courses, modern statistical techniques, and tools of data science. Students can choose electives to follow a data science track, a financial economics track or an international/development economics track. Applicants do not need an undergraduate degree in economics to be admitted, although evidence of strong analytical skills is required.

Admission Guidelines

Applicants must hold a bachelor's degree from an accredited college or university unless they are current Baylor undergraduates applying for the Joint BBA/MS program. Applicants are admitted on the basis of undergraduate record, GRE or GMAT score, and letters of recommendation. International students are also required to take either the Texas of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS), unless the applicant has a degree conferred by a U.S. accredited higher education institution. In addition, before admission, applicants must have taken the following undergraduate economics courses, or their equivalents: ECO 3306 and 3307 (i.e., intermediate microeconomics and intermediate macroeconomics), or fifteen hours of economics. Applicants are also strongly advised to complete undergraduate courses in calculus and statistics before the course of study begins.

MASTER OF SCIENCE IN ECONOMICS

Degree Requirements

Students may earn the Master of Science in Economics by fulfilling the requirements of one of the two options detailed below:

1. **Thesis option:** Complete 24 hours of course work (including ECO 5001, 5002, 5310, and 5315) plus a six-hour thesis (30 semester hours total). Eighteen hours of course work must be in economics (prefixed by ECO), and 15 of these 18 hours must be at the 5000-level. Additionally, 18 hours of course work, whether within or outside of economics, must be at the 5000-level. Only those 4000-level courses approved for graduate credit (i.e., courses that appear in the Graduate Catalog) will count toward the degree's requirements.
2. **Non-thesis option**: Complete 36 hours of course work (including ECO 5001, 5002, 5310, 5315, and 5343) (36 semester hours total). Twenty-four hours of course work must be in economics (prefixed by ECO), and 15 of these 24 hours must be at the 5000-level. Additionally, 24 hours of course work, whether within or outside of economics, must be at the 5000-level. Only those 4000-level courses approved for graduate credit (i.e., courses that appear in the Graduate Catalog) will count toward the degree's requirements.

JOINT BACHELOR OF BUSINESS ADMINISTRATION/MASTER OF SCIENCE IN ECONOMICS

Students pursuing a Bachelor of Business Administration degree with a major in economics may complete the BBA and MS in Economics (thesis option) programs concurrently. This joint program does not reduce the number of semester hours required in either degree and does not allow double counting of hours. However, it provides greater flexibility in course scheduling, may reduce the time required to complete the two degrees, and may allow more efficient use of financial aid. The BBA in Economics (and any additional undergraduate majors) will be awarded simultaneously with the MS in Economics upon completion of all degree requirements. Students who decide to withdraw from the joint program will be allowed to finish the BBA program, but will not be allowed to re-enter the joint degree program at a later date.

Admission

Interested students should engage in early degree planning and may apply for the joint program upon completion of 90 semester hours of credit. Applicants must be making good progress in the BBA program, must be majoring in economics, and must have an economics GPA of 3.5 or higher prior to applying for the program. Admission decisions will be based on the prior undergraduate record, GRE scores, and two letters of recommendation from professors in economics or related disciplines.

Requirements*

Undergraduate Arts and Sciences	41-53
Undergraduate Business Core	50
Undergraduate Economics Minor	15
Undergraduate Electives	As needed
Chapel (2 semesters)	N/A
Total Undergraduate Minimum	124
Graduate Economics Core	
ECO 5001, 5002, 5310, 5315, and 5347	9
Graduate Electives**	15
Thesis	6
Total Graduate Hours	30
Total Combined Program	**154**

**For Baylor Business Fellows, the undergraduate portion will be adjusted to the requirements of that program.*

***Course selections must be approved by the Economics Graduate Program Director.*

At least eighteen hours of graduate course work must be in economics (courses prefixed by ECO), and 15 of these hours (not including thesis hours) must be at the 5000-level. Additionally, 18 hours of overall course work (in or out of economics) must be at the 5000-level. Only 4000-level courses approved for graduate credit will count toward the degree requirements. BBA/MS in Economics candidates must maintain a GPA of 3.0 or higher in their graduate economics courses. Students in this program must complete the version of the MS in Economics that includes a thesis requirement. The minimum duration of the joint program is four years.

MINOR IN ECONOMICS

The graduate program in economics is also offered as a minor in various master's and doctoral programs. If a minor in economics is selected by a student enrolled in another graduate program, it must be approved by the Graduate Program Director in the Department of Economics. To qualify for a minor in economics, the student must complete at least three 5000-level economic courses.

PH.D. IN HEALTH SERVICES RESEARCH

Robbins Institute Academic Director: Steve Green
Program Director: Neil Fleming
Associate Dean for Research and Faculty Development: Cindy Riemenschneider
Associate Dean for Graduate Programs: Tim Kayworth

Program Description

The purpose of Baylor University's Ph.D. Program in Health Services is to train the next generation of scholars to integrate the disciplines of economics, sociology, statistics, epidemiology, and ethics. Graduates will be prepared to collaborate with other contributors to improve the health and healthcare of individuals and populations across the nation and around the world. The growing role of Health Services Research in all facets of health and healthcare has increased the need for professionals who can provide rigorous, methodologically-sound solutions to the many challenges facing leaders and health policy makers.

The doctoral program in Health Services Research was created in response to this demand and leverages Baylor's reputation as an academic leader in those fields. Our faculty has expertise and experience conducting numerous research studies resulting in publications in high impact journals. They have focused on both clinical and financial outcomes, providing important information for healthcare leaders on the types of interventions that can truly make a difference in patient care. The primary goal of our program is to train the next generation of thought leaders who will make important contributions to this rapidly growing discipline, answering the call to improve healthcare as effectively and efficiently as possible. The program provides preparation with requisite competencies for a career for employment in research settings such as academia, healthcare delivery systems, provider entities, insurance and pharmaceutical companies, specialty societies, and government.

The curriculum is highly quantitative, and successful candidates will be awarded the MS in Economics after the requirements for the degree are satisfied. Ph.D. candidates will partake in a Research Mentorship that will give them the opportunity to work one-on-one with a faculty member to produce research studies. Throughout the program, candidates will have opportunities to conduct impactful research, potentially working with many disciplines collaboratively with clinical and non-clinical personnel to focus on both effectiveness (better clinical outcomes) and efficiency (better financial outcomes).

Admission Requirements:

Applicants must have a degree from an accredited university or college and must meet all general admissions requirements of Baylor's Graduate School for admission to Ph.D. level graduate studies. Successful applicants will provide strong evidence of the ability to conduct quantitative research and to communicate research findings effectively. Prerequisites for admission include two semesters of calculus (three preferred) and one semester of statistics (more than one preferred). The admission decision is based on a holistic review of an applicant's previous academic record, GRE scores, research experience (including review of previously completed research studies, if available), two letters of recommendation (ideally from individuals familiar with the applicant's research skills and record), and applicant essays.

Curriculum:

The Ph.D. in Health Services Research is an 73 hour degree program designed to be completed in four years. The program is also designed for students to meet the requirements for the Master of Science in Economics (non-thesis option) by the end of the second year.

Economics Required Courses:	
ECO 5310 Macroeconomic Theory	3 hours
ECO 5315 Microeconomic Theory	3 hours
ECO 5347 Econometric Theory and Methods	3 hours
ECO 5350 Health Economics	3 hours
Advisor-Approved Graduate-Level Economics Electives	12 hours
Total Economics	**24 hours**
Research Design and Methods Required Courses	
SOC 5312 Social Science Data Analysis	3 hours
STA 5384 Advanced Quantitative Techniques	3 hours
HSR 6220 Legal and Ethical Considerations of Health Services Research	2 hours
HSR 6310 Epidemiology and Evidence-Based Medicine in Health Services Research	3 hours
HSR 6330 Economic Evaluation: Decision Analysis in Health Services Reseach	3 hours
HSR 6340 Experimental and Quasi-Experimental Design in Health Services Research	3 hours
HSR 6V98 Special Studies in Health Services Research	3 hours
Advisor-Approved Graduate-Level Economics Electives	9 hours
Total Research Design and Methods	**29 hours**
Health Policy and Administration Required Courses	
HPA 5310 US Healthcare System	3 hours
HPA 5395 US Healthcare Directions	3 hours
Total Health Policy and Administration	**6 hours**
Research Practicum	**2 hours**
Total Course Work	**61 hours**
Dissertation Proposal	1-3 hours
Dissertation	9-11 hours
Total Dissertation Proposal and Dissertation	**12 hours**
Total Required Hours	**73 hours**

Program Completion Requirement:

A student will be recognized as a candidate for the doctoral degree only after having (1) completed required courses including 24 hours in Economics as required for the M.S. in Economics, (2) passed the preliminary exams, (3) completed all residence and departmental requirements except the dissertation and (4) received approval by the Dean of the Graduate School of their formal application for admission to candidacy for the degree. The comprehensive exam will typically take place during the month of June following the student's second year of study. The preliminary exam is written and will cover material from the research design and methods classes during the first two years. After the completion of the 3-years of course work, candidates will undergo the dissertation proposal process. As is customary, after having completed the dissertation, the candidate must successfully defend the dissertation at an oral examination.

PH.D. IN ENTREPRENEURSHIP

Department Chair: Matthew Wood
Program Director: Peter Klein
Associate Dean for Graduate Programs: Tim Kayworth

Program Description

The Ph.D. in Entrepreneurship is a research-based degree drawing on classic and modern literature in economics, sociology, psychology, political science, history, statistics, and other disciplines. It equips students to investigate the great questions confronting entrepreneurs, policymakers, and other actors. Students work closely with faculty mentors in developing an appreciation for theory, research methods, and the publication process. The doctoral program is personalized to reflect the intellectual interests of the students while capitalizing on the strengths of Baylor's entrepreneurship faculty. Students work directly with faculty mentors to produce and publish research, and the program aims to

place graduates in faculty positions at highly ranked universities and similar institutions. The Ph.D. in Entrepreneurship uniquely emphasizes excellence in teaching and does so in a way that is consistent with Christian principles of stewardship. This includes required courses in pedagogy along with a mentorship plan that builds teaching skills. While the primary focus is entrepreneurship, students also receive training in strategic management and organization theory. The Department of Entrepreneurship is also home to the Baugh Center for Entrepreneurship and Free Enterprise, which studies the effects of public policy and institutions on entrepreneurship. Baylor University provides tuition remission for all admitted students. The Hankamer School of Business and the Department of Entrepreneurship provide a competitive annual stipend to doctoral students, as well as support in attending key conferences in entrepreneurship. Competitive summer research grants are available from the Baugh Center for Entrepreneurship to support research interests of doctoral students.

Admission Requirements:

Applicants must hold a bachelor's degree from an accredited university or college. An acceptable score on the GMAT or GRE is required. Applicants must adhere to the general admissions requirements of Baylor's Graduate School for admission to Ph.D. level graduate studies. In general, applicants should meet the common body of knowledge (CBK) requirements for business degrees. CBK is sometimes referred to as business core courses. Students not meeting the CBK requirements can satisfy this requirement by satisfactorily completing the Integrated Management Seminars (BUS 5601 and BUS 5602) and by completing MGT 5310.

Curriculum

The Entrepreneurship Ph.D. is a full-time, four-year, residential program. The first two years involve 36 hours of formal coursework, with the rest comprising independent research, teaching, and other activities. Besides required courses in entrepreneurship theory and research methods students take EDA 6302. Teaching and Learning in Higher Education to develop an understanding of curricular issues, course development and content, teaching techniques, and learning theories. Upon completion of this course, students undergo a teaching apprenticeship during the second year of the program. During the third year in the program students transition from apprentice to professor orf record for one course per semester. Admission to doctoral candidacy requires passing a comprehensive qualifying examination. Students also enroll in summer research practicums (6 hours) and complete three hours of prospectus research. After admission to candidacy, students complete nine hours of dissertation work. Completion of the program requires the production and defense of a dissertation on an important issue in entrepreneurship theory, history, policy, or practice, under the supervision of a faculty advisor and committee.

Entrepreneurship Required Courses		
ENT 6320	Seminar in Entrepreneurship	3 sem. hrs.
EDA 6302	Teaching and Learning in Higher Education	3 sem. hrs.
EDP 5334	Statistical Methods	3 sem. hrs.
ENT 6310	Seminar in Strategic Management	3 sem. hrs.
ENT 6340	Research Methods	3 sem. hrs.
EDP 6362	Applied Multiple Regression	3 sem. hrs.
ENT 6330	Theoretical Perspectives in Stratey and Entrepreneurship	3 sem. hrs.
MIS 6320	Quantitative Methods II	3 sem. hrs.
ENT 6350	Seminar in Organization Theory	3 sem. hrs.
MIS 6350	Conducting an Effective Literature Review	3 sem. hrs.
Research Practicum		
ENT 6V98	Research Practicum I	6 sem. hrs.
Electives		6 sem. hrs.
Dissertation Credit		
ENT 6V00	Dissertation Proposal	3 sem. hrs.
ENT 6V99	Dissertation	9 sem. hrs.
Total		**54 sem. hrs.**

Degree plan:

A formal degree plan will be developed in consultation with the advisor/committee. The recommended course sequence is as follows:

Year 1		
Fall semester		
ENT 6320	Seminar in Entrepreneurship	3 sem. hrs.

EDA 6302	Teaching and Learning in Higher Education	3 sem. hrs.
EDP 5334	Statistical Methods	3 sem. hrs.
Spring semester		
ENT 6310	Seminar in Strategic Management	3 sem. hrs.
ENT 6340	Research Methods	3 sem. hrs.
EDP 6362	Applied Multiple Regression	3 sem. hrs.
Summer semester		
ENT 6398	Research Practicum I	3 sem. hrs.
Year 2		
Fall semester		
ENT 6330	Theoretical Perspectives in Strategy & Entrepreneurship	3 sem. hrs.
MIS 6320	Quantitative Methods II	3 sem. hrs.
Elective		3 sem. hrs.
Spring semester		
ENT 6350	Seminar in Organization Theory	3 sem. hrs.
MIS 6350	Conducting an Effective Literature Review	3 sem. hrs.
Elective		3 sem. hrs.
Summer semester		
ENT 6398	Research Practicum II	3 sem. hrs.
Year 3		
Fall semester		
ENT 6V00	Dissertation Proposal and Prospective	3 sem. hrs.
Spring semester		
ENT 6V99	Dissertation	3 sem. hrs.
Year 4		
Fall semester		
ENT 6V99	Dissertation	3 sem. hrs.
Spring semester		
ENT 6V99	Dissertation	3 sem. hrs.
Total		**54 sem. hrs.**

Program Completion Requirement

Students will be recognized as candidates for the doctoral degree only after having (1) passed the written comprehensive exam, (2) completed all residence and departmental requirements except the dissertation and (3) received approval by the Dean of the Graduate School of their formal application for admission to candidacy for the degree. The comprehensive exam will take place during the summer following each student's second year of study. The comprehensive exam is written and will cover material from the five core ENT required courses (ENT 6310, 6320, 6330, 6340, and 6350) and three required quantitative methods courses (EDP 5334, 6362 and MIS 6320 or approved equivalents). The candidate must also complete and defend successfully the dissertation at an oral examination.

DEPARTMENT OF INFORMATION SYSTEMS

Advisor: Gina Green
Associate Dean for Graduate Programs: Tim Kayworth

MASTER OF SCIENCE IN INFORMATION SYSTEMS

Objectives

The Master of Science in Information Systems (MSIS) is designed to provide graduates with the knowledge and skills to leverage information technology that improves business processes and effectiveness. The program enables graduates to attain a solid background in information systems management in the public or private sectors, and serves as foundation for continued professional growth in the field. It is also designed for the student who wants to develop depth and expertise in the information systems field.

The MSIS program provides students the opportunity to tailor their program of study to their specific career goals. Prior background in information systems is not required for admission.

Admission

Applicants must have a bachelor's degree from an accredited university or college. Applicants must present a grade point average and scores on the GRE or GMAT that are predictive of success in this program. Applicants must adhere to the general admissions requirements for graduate study at Baylor and also meet the admission requirements of the Master of Science in Information Systems degree program.

Curriculum

As a part of the MSIS curriculum, all MSIS students are required to demonstrate competency in four core content areas; programming, systems analysis and design, database, and information security.This competency may be shown by successful completion of specific courses (MIS 5301, MIS 5315, or 5316, MIS 5335, MIS 5340, and ISEC 5305) as a part of their matriculation in the MSIS program, or by successful completion of these courses in previous undergraduate information systems or computer science programs. In all cases, students are required to complete either 36 hours (non-thesis option) or 30 hours (thesis hours) of coursework during their MSIS program. MIS or ISEC electives will be chosen in consultation with the MSIS advisor.

The MSIS non-thesis track requires at least thirty-six hours of courses which includes:

Non Thesis Track **36 sem. hrs.***
(3 hrs.) MIS 5355 Management of Information Systems
(18 hrs.) Additional MIS or ISEC courses
(12 hrs.) Business electives (can be additional MIS or ISEC courses)
(3 hrs.) MIS 5V95 Internship (if less thatn 2 years of full-time work experience)

The MSIS thesis track requires at least thirty hours of courses which includes:

Thesis Tack **30 sem. hrs.***
(3 hrs.) MIS 5355 Management of Information Systems
(15 hrs.) Additional MIS or ISEC courses
(6 hrs.) Business electives (can be additional MIS or ISEC courses)
(6hrs.) MIS 5V99 Thesis

*All students in the MSIS program are required to have successfully completed introductory courses in finance, managerial accounting, and business statistics. If this requirement is not met prior to entrance into the MSIS program, the student must complete a series of foundational couses in addition to the program requirements described above. The foundational courses may be satisfied by completing the Business Frameworks courses offered by the MBA program.

PH.D. IN INFORMATION SYSTEMS

Department Chair: Jonathan K. Trower
Program Director: Dorothy E. Leidner
Associate Dean for Graduate Programs: Tim Kayworth

Program Description

The Ph.D. in Information Systems seeks to train future researchers, scholars, and teachers to analyze and understand the multi-faceted impact of information systems and technologies on individuals, organizations, and society. The program takes a broad perspective, favoring an approach in which the impact of information systems on individuals, organizations and society is examined from multiple perspectives, including, but not limited to, organizational theories. It is imperative that students understand both the positive, and negative, consequences of information systems as well as the moral and ethical dilemmas introduced in societies coordinated by and highly dependent upon information systems. The program encourages students to study and understand the role of technology in organized religion (both good and bad) and foster a Christian understanding of how to deploy IS to improve the world in which we live. Understanding the consequences of information systems and technologies requires a solid theoretical background that spans various disciplines. The program requires that students take a certain amount of hours outside the IS department, in order to expand their theoretical horizons. Ultimately, the program aims to graduate and place highly-trained students in colleges and universities around the world.

Admission Requirements:

Applicants must have a degree from an accredited university or college. An acceptable score on the GMAT or GRE is required. Applicants must adhere to the general admissions requirements of Baylor's

Graduate School for admission to Ph.D. level graduate studies. In general, applicants should meet the common body of knowledge (CBK) requirements for business degrees. CBK is sometimes referred to as business core courses. Students not meeting the CBK requirements can satisfy this requirement by satisfactorily completing the 12-hour Business Foundations course sequence that MBA and MSIS students take.

Curriculum:

Similar to other well-established Ph.D. programs in Information Systems (IS) and in keeping with the typical structure of curriculum in Ph.D. programs offered at Baylor, the Ph.D. in Information Systems is a 90 hour degree program, including 36 hours of M.S. work[1] and 54 hours of Ph.D. work (including 12 dissertation hours and 6 research apprenticeship hours). Of the seven required IS classes, the first five (MIS-6310 through MIS-6350) will all be taught as regular doctoral seminars. The other two required courses (MIS-6398 and MIS-6399) will constitute the summer research apprenticeships during the summers of Year 1 (MIS-6398) and Year 2 (MIS-6399). During these apprenticeships, students will work one-on-one with a faculty mentor to produce a conference paper. In addition to taking the seven required IS doctoral courses, Ph.D. students will be required to take another 21 hours of elective courses. Of the 21 hours of elective courses, 6-12 hours will come from non-IS doctoral level courses[2]. Students will then take another 6-12 hours of credit offered by the Information Systems Department[3]. The final 3-6 hours of elective credit will consist of statistical methods courses.

Information Systems Required Courses:

MIS-6310	Foundations in IS Research	3 hours
MIS-6320	Quantitative Methods in IS Research	3 hours
MIS-6330	Theoretical Perspectives in IS Research	3 hours
MIS-6340	Qualitative Methods in IS Research	3 hours
MIS-6350	Conducting Effective Literature Reviews	3 hours
MIS-6398	Research Apprenticeship I	3 hours
MIS-6399	Research Apprenticeship II	3 hours
Total		**21 hours**

Electives:

Support Area	6-12 hours
IS Electives	6-12 hours
Method Elective	3-6 hours
Total	**21 hours**

Dissertation Credit	**12 hours**
Total	**54 hours beyond the MSIS or equivalent**

Degree Plan:

A formal degree plan will be developed in consultation with the advisor/committee. The proposed degree plan should be completed and submitted to the advisor/committee as soon as possible during the first semester. A maximum of six hours of graduate level course work may be transferred from another accredited university. Consistent with most small Ph.D. programs, we will rotate the Year 1 and 2 such that students beginning in Year 2 will take the Year 2 classes during their first year. This will mean that all the students from Year 1 and 2 will take the Year 2 classes together. The Year 2 students will then take the Year 1 classes during their 2nd year, along with the Year 3 students. This way, all the required classes will be offered every 2 years rather than every year.

The recommended course sequence is as follows:

Year 1:

Semester 1

MIS-6310, MIS-6320, Elective 9 hours

[1] *Students already holding an MS in Information Systems or a related discipline (such as computer science) will not be required to complete the MSIS degree.*

[2] *Supporting area electives should be doctoral level courses offered by other Baylor academic units. Ph.D. students wishing to take 5000 level (Master's) courses in their support area must obtain prior approval from their doctoral advisor.*

[3] *Subject to availability of IS electives.*

Three credit hours per semester (fall and spring) during years 3 and 4.

Semester 2	
MIS-6330, MIS-6340, Elective	9 hours
Summer	
MIS-6398	3 hours
Year 2:	
Semester 3	
Electives	9 hours
Semester 4	
MIS-6350, Electives	9 hours
Summer	
MIS-6399	3 hours
Year 3:	
MIS-6V99 (Dissertation credit)	6 hours
Year 4:	
MIS-6V99 (Dissertation credit)	6 hours
Total Credit	**54 hours**

*Information Systems Electives:
MIS-6325 Quantitative Methods: Research Using PLS
MIS-6345 Qualitative Methods: Collecting Analysis and Analyzing Case Study Data
MIS-6370 Contemporary Issues in IS Research
MIS-6372 Seminar in Group Communication and Decision-making
MIS-6374 Organization Theory and its Application in IS Research
MIS-6380 Ethics in Contemporary Issues in Information Systems

Program Completion Requirement:

Students will be recognized as candidates for the doctoral degree only after having (1) passed the written comprehensive exam (qualifying paper), (2) completed all residence and departmental requirements except the dissertation, and (3) received approval by the Dean of the Graduate School of their formal application for admission to candidacy for the degree. The comprehensive exam (qualifying paper) will be due May 1 of the student's second year of study.As is customary, after having completed the dissertation, the candidate must successfully defend the dissertation at an oral examination.

CHEMISTRY AND BIOCHEMISTRY

Chair: Patrick J. Farmer

Graduate Program Co-Directors: Michael A. Trakselis and Kevin L. Shuford

The department offers the Master of Science and Doctor of Philosophy degrees.

Admission

A bachelor's degree equivalent to a B.S. degree in chemistry or biochemistry at Baylor is the standard requirement for admission. In addition to the GRE General Test, the Advanced test in chemistry may be required of applicants, at the discretion of the Graduate Committee. A personal statement from the applicant as well as letters of reference are also required. A current TOEFL/IELTS is required for all international applicants. Complete application packages for admission to the Ph.D. program will be evaluated by the Graduate Admissions Committee of the Department of Chemistry and Biochemistry.

Requirements

Students are required to qualify in three areas of chemistry either by taking ACS style division exams or by passing appropriate coursework with a grade of B or better by the end of the second semester. A student will take at least three courses within their major field of specialization and outside that area, as well as Scientific Communication (CHE 5260) and Responsible Conduct of Research (CHE 5101). **The student's dissertation or thesis committee may require any course work that it deems proper and advisable.** The Ph.D. Dissertation Committee will consist of at least 5 members, the Advisor, two members from the student's division, one member from Chemistry and Biochemistry outside of the student's division and one member from outside the Department of Chemistry and Biochemistry. All Committee members must be Graduate Faculty. The M.S.Thesis Committee will consist of at least four members, the Advisor, one member from the student's division, one member from Chemistry and Biochemistry outside of the student's division and one member from outside of the Department

of Chemistry and Biochemistry. All Committee members must be Graduate Faculty. M.S. and Ph.D. students specialize in one of the following areas: analytical, biochemistry, inorganic, organic, and physical, as set forth below. A written Thesis/Dissertation of the student's research is required for the thesis M.S. and the Ph.D. degrees. There is a mandatory publication requirement of at least two contributed works in recognized national or international journals for awading of a Ph.D. All doctoral degree program students must fulfill at least two semesters as a graduate teaching assistant. There is no foreign language requirement for the Ph.D.

Note: The requirement for a minor field of study (as described in the Graduate Catalog) does not apply to the graduate degrees in chemistry and biochemistry.

MASTER OF SCIENCE (NON-THESIS)

The minimum semester-hour requirement for the M.S. non-thesis degree is thirty semester hours.

	30 sem. hrs.
Lecture course work in the major area	9
Additional lecture course work outside the major area	6
CHE 5260 Scientific Communication	2
CHE 5101 Responsible Conduct of Research	1
Colloquium (CHE 5050) - Register every Fall/Spring semester	0
Additional lecture and/or research course work (i.e. CHE 5V98)	11
Pre-candidacy Seminar (CHE 5150)	1

Note: Students are not directly admitted into the non-thesis M.S. program. The maximum time limit for the completion of the M.S. degree is five years. A typical time frame for completion of M.S. is 2-3 years.

MASTER OF SCIENCE

The minimum semester-hour requirement for the M.S. degree is thirty semester hours including six semester hours of CHE 5V99.

	30 sem. hrs.
Lecture course work in the major area	6
Additional lecture course work outside the major area	3
CHE 5260 Scientific Communication	2
CHE 5101 Responsibile Conduct of Research	1
CHE 5050 Colloquium (Register every Fall/Spring)	0
Additional lecture and/or research course work as determined by the thesis committee (i.e. CHE 5V98)	10
Pre-candidacy Seminar (CHE 5150)	1
Defense Seminar (CHE 5150)	1
Thesis (CHE 5V99)	6

Note: Students are not directly admitted into the M.S. program. The maximum time limit for the completion of the M.S. degree is five years. A typical time frame for completion of M.S. is 2-3 years.

DOCTOR OF PHILOSOPHY

General requirements for the Doctor of Philosophy degree are given in the general requirements section of this catalog. It is not necessary that students with the B.S. degree obtain an M.S. degree in chemistry before pursuing the doctorate.

	78 sem. hrs.
Lecture course work in the major area	9
Additional lecture course work outside the major area	6
CHE 5260 Scientific Communication	2
CHE 5101 Responsible Conduct of Research	1
Additional lecture and/or research course work as determined by the dissertation committee (i.e. CHE 5V98)	45
Pre-candidacy Seminar (CHE 5150)	1
Candidacy Seminar (CHE 5150)	1
Defense Seminar (CHE 5150)	1
Dissertation (CHE 6V99)	12

Courses

	Analytical	Biochemistry	Inorganic	Organic	Physical
CHE	5310	5345	5301	4334	5320
CHE	5314	5346	5302	5334	5322
CHE	5315	5347	5305	5335	5325
CHE	5316	5348	5306	5336	5326
CHE	5312	5306	5304	5331	5323
CHE	5345	5341	5323	5332	5347

Analytical

CHE	5310	Advanced Chemical Instrumentation
CHE	5312	Advanced X-omics Mass Spectrometry
CHE	5314	Separation Science
CHE	5315	Electroanalytical Chemistry
CHE	5316	Analytical Spectroscopy
CHE	5345	Selected Topics in Bioanalytical Chemistry
ENV	5387	Advanced Environmental Chemistry

Biochemistry

CHE	5341	Biopolymers
CHE	5345	Selected Topics in Bioanalytical Chemistry
CHE	5346	Chemical Biology
CHE	5347	Physical Biochemistry
CHE	5348	Enzymology
BIO	5300	Advanced Biotechnology/Cancer Biology/Nucleic Acids
BIO	5304	Nucleic Acids
BIO	5306	Bioinorganic Chemistry
BIO	5307	Advanced Cell Biology
BIO	5311	Advanced Genetic Analysis

Inorganic

CHE	5301	Chemistry of the Elements
CHE	5302	Symmetry and Group Theory in Chemistry
CHE	5304	Special Topics in Inorganic Chemistry
CHE	5305	Organometallic Chemistry and Homogenous Catalysis
CHE	5306	Bioinorganic Chemistry
CHE	5323	Structural Studies by X-ray Crystallography

Organic

CHE	4334	Organic Spectroscopy
CHE	5331	Stereochemistry
CHE	5334	Heterocyclic Chemistry
CHE	5335	Physical Organic Chemistry
CHE	5336	Advanced Synthesis and Natural Products
CHE	5332	Organic Reactions

Physical

CHE	5320	Thermodynamics and Statistical Thermodynamics
CHE	5322	Chemical Kinetics and Mechanisms
CHE	5323	Structural Studies by X-ray Crystallography
CHE	5325	Quantum Chemistry
CHE	5326	Lasers and Molecular Spectroscopy
CHE	5347	Physical Biochemistry

Performance standard: A minimum grade of "B-" is required to satisfy a core course requirement. Grades of B or better are required to qualify in specific areas of chemistry. Students must also maintain a minimum overall graduate lecture course only GPA of 3.0. Falling below the minimum lecture course GPA will result in departmental probation. Students must attain the minimum overall lecture course GPA of 3.0 by the end of their subsequent semester. Failure to maintain the minimum GPA for two consecutive semesters will result in expulsion from the chemistry graduate program. ***IMPORTANT: Graduate School policy states that failure to maintain a minimum overall GPA of 3.0 results in immediate probationary status. Students on probation are ineligible for stipend support and tuition waivers.***

Further details regarding all degrees may be obtained by request from the Graduate Program Director of the Department of Chemistry and Biochemistry or can be found in the current Graduate Student Handbook of the department. Prior to graduation, all candidates for the Master of Science or Doctor of Philosophy degree must comply with Department regulations concerning laboratory checkout. The checkout procedure includes a satisfactory inspection of the candidate's work area by the Department Safety Officer and Risk Management, as well as completion of the Department Clearance Form.

DEPARTMENT OF CLASSICS

Chairperson: Kenneth R. Jones
Graduate Program Director: Meghan J. DiLuzio

MASTER OF ARTS IN CLASSICS

Admission

Applicants for the Master of Arts in Classics should be directed to the Graduate School. The application deadline is February 15. In addition to all admissions requirements listed in the General Information section of this catalog, the Department of Classics requires the following:

1. An undergraduate major in Classics, Greek, or Latin, or at least twenty-four semester hours of Greek and/or Latin. Those deficient in these requirements may be admitted on a probationary basis.
2. GPA and GRE scores predictive of success in the program.
3. Three letters of recommendation from current or former professors.
4. A personal statement outlining an area of interest and reasons for seeking the degree.
5. A writing sample at least ten pages in length, normally from a course in Classics or a related discipline. Teachers may submit a statement of teaching philosophy and representative teaching materials (e.g., a week of lesson plans and any supporting material for a Greek or Latin class).

Degree Requirements

The Master of Arts in Classics degree consists of thirty-three semester hours, including the successful completion of a three-hour theis or non-thesis project. The requirements are as follos:

1. Thirty semester hours of coursework, including at least eighteen hours at the 5000 level:
   - A. Materials and Methods — 3 semester hours
     CLA 5300
   - B. Greek — 9 semester hours
     GKC courses at the 5000 level, except for GKC 5303, 5321, 5322
   - C. Latin — 9 semester hours
     LAT courses at the final 5000 level, except for LAT 5303, 5321, 5322
   - D. Supplementary Fields — 9 semester hours
     One course from three of the following subfields:
     i. Ancient History: CLA 5302; HIS 4322*; HIS 4324*; REI 5331*
     ii. Papyrology, Paleography, Linguistics, and Textual Criticism: LAT 5303; ENG 5303
     iii. Art and Archaelogy: ANT 4341*; ANT 4V16*; CLA 4368; CLA 4369
     iv. Ancient Thought: GTX 4V99*; PHI 5301*; PHI 5302*; PHI 5312*; PSC 5343*
     *Designates a course that must be approved by the Graduate Program Director. Students may petition the Graduate Program Director for a second course in a given subfield. Some students may be permitted to fulfill the requirements for this degree with courses in one classical language if they (1) have at least twelve undergraduate hours of the other language, (2) Demonstrate an equivalent proficiency by passing a departmental examination, or (3) achieve a grade of B or better in GRK 5321 and 5322, or LAT 5321 and 5322.
2. A three-hour thesis (CLA 5V99) or non-thesis project (5V90).
3. Demonstrated intermediate proficiency in French, German, or Italian by one of the methods listed in the Specific Degree Requirements for the Master of Arts degree in the general inforamtion section of this catalog.
4. Three written exams, including a translation exam on Greek literature, a translation exam on Latin literature, and an exam on Greek or Roman history. Students must pass one of the two translation exams before beginning their second year of study. A student may retake a failed exam once, but failing an exam twice will result in dismissal from the program.
5. An oral defense of the thesis or non-thesis project.

JOINT BACHELOR OF ARTS/MASTER OF ARTS IN CLASSICS

Admission

Applicants for the joint Bachelor of Arts/Master of Arts in Classics should be directed to the Graduate Program Director. The application deadline is August 1 prior to the senior year. The requirements for admission are as follows:

1. Active progress toward a Bachelor of Arts in Classics, Greek, or Latin. Students pursuing a major in Greek or Latin must have begun study in the other language before applying.
2. GPA and GRE scores predictive of success in the program.
3. A personal statement outlining an area of interest and reasons for seeking the degree.

Degree Requirements

The joint Bachelor of Arts/Master of Arts in Classics degree consists of 151 semester hours, including the successful completion of a three-hour thesis or non-thesis project. The requirements are as follows:

1. All requirements for the Bachelor of Arts degree with a major in Classics, Greek, or Latin listed in the Undergraduate Catalog. A maximum of nine semester hours from the undergraduate major may be waived for nine graduate hours.
2. All requirements for the Master of Classics (33 hours) listed above.

COMMUNICATION SCIENCES AND DISORDERS SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

Interim Chair: Diane Loeb
Graduate Program Director: Susan Sherman

The Master of Science program (M.S.) in Speech-Language Pathology at Baylor University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Blvd., Rockville, MD, 20850, (301) 296-5700. The requirements governing the selection of courses and clinical practicum experiences must be individualized based upon the date when a student begins the program and the courses that he or she takes. Therefore, all students must consult with the Graduate Program Director for guidance in fulfilling the American Speech-Language-Hearing Association's standards.

Students with an undergraduate major in communication sciences and disorders must complete forty-five semester hours and a comprehensive examination for the degree of Master of Science. A Thesis Track is available which requires written approval from a faculty member who is willing to act as the thesis committee chair and the Graduate Program Director. Students on the Thesis Track are required to defend their thesis and are not exempt from taking the comprehensive examination.

Students choosing the thesis track must take all academic courses required for the non-thesis track and enroll in clinical practicum each semester. Thus, both tracks lead to eligibility for the Certificate of Clinical Competence in Speech-Language Pathology. The Thesis Track students must enroll in the Thesis course (CSD 5V99) for at least 3 semesters beginning from as early as the second semester to the semester of completion of the research project. The Thesis Track also requires no less than 3 additional hours of enrollment in 5V99 and the completion of a minimum of 48 semester hours.

Students who earned their primary undergraduate degree with a major in CSD are admitted in the fall, spring, and summer semesters. The department admits about 75 graduate students each year. Admission decisions are based on faculty review of undergraduate transcripts, overall and major GPA, scores on the Graduate Record Examination General Test, personal statements, and three letters of recommendation. ASHA certification requires additional course work referred to as the "Basic Sciences" and "Basic Human Communication Processes." These courses should be taken prior to being accepted to the program. With approval from the Graduate Program Director, a student missing a basic science may begin the graduate program but must have all the basic sciences completed by the beginning of the second semester in the program. Certain graduate courses are required of all students to ensure that students are exposed to a variety of areas in speech-language pathology and audiology. These courses are CSD 5311, 5312, 5314, 5316, 5318, 5328, three semester hours of 5149, and six semester hours of 5649.

CSD 5V48, Seminar in Speech Pathology may be taken more than once under different topic areas (e.g., Seminar in Pediatric Dysphagia, Seminar in Traumatic Brain Injury, etc.).

There is no foreign language requirement. All graduate students must work with the Graduate Program Director to develop an approved Graduate Course-work Program Plan.

Students entering the graduate program without an undergraduate degree in communication sciences

and disorders will be accepted in the fall semester only and must take additional "leveling" courses to meet requirements for Baylor, state licensure, and professional certification. Leveling students must work with the Graduate Program Director to develop an approved Graduate Course-work Program Plan.

Graduate students must take the National Examination in Speech-Language Pathology at the scheduled date that is nearest to the comprehensive examination and submit their scores to Baylor. Graduate students must participate in Certification Day at the end of the program where all academic and professional documentation will be completed.

No students may take clinical practicum courses without departmental approval.

Policies and operating procedures for the graduate program are detailed in the CSD Graduate Handbook, and is provided to each student upon enrollment.

DEPARTMENT OF COMMUNICATION

Chairperson: David W. Schlueter
Graduate Program Director: Mark T. Morman

MASTER OF ARTS

Human communication is the process by which people create and share messages and meanings in order to pursue relational, rhetorical, organizational, or mediated social goals, purposes, and outcomes. Communication is at the core of the Liberal Arts promoting our understanding of the vital and formative role of social interaction in a variety of contexts. We believe the unique ability of humans to create, sustain, change, and influence their social worlds through human symbolic activity is primary to all we do and to whom we are; indeed, our social world is constituted in and through human communication.

The goal of the MA in Communication graduate program at Baylor University is to achieve excellence in teaching, scholarship, research, and production methods through a balance of theory and practice. As such, we hope to provide our students with a unique understanding of the processes of social life, while also encouraging them to become ethical, articulate, and innovative leaders in the field of communication.

The MA degree in Communication is designed to prepare students to use relational, organizational, rhetorical, and media theory and research in order to pursue career goals including advanced work at the doctoral level, careers in academia, and careers in consulting, business, and the media industry.

Graduate education in our program socializes students into two crucial forms of knowing. The first approach is humanistic or qualitative. This approach essentially aims to describe the characteristics of various forms of spoken messages. Rhetorical criticism and theory, analysis of argumentation, the production of film and video artifacts, film theory, and the aesthetics of film and video all fall under the rubric of the qualitative approach. The second approach of studying and researching human communication is grounded firmly in empirical methodologies involving such activities as experimental design, and statistical analysis, within studies of interpersonal relationships, the family, complex organizations, health communication, small group communication, and the process and effects of mass communication. These two crucial forms of knowing will provide students with the opportunity to study several overlapping concentrations within the graduate program.

The MA in Communication is one graduate degree program housed in two different departments. As such, we offer two distinct programs of study, one in human communication and one in film and digital media. Further, the degree provides three primary pathways for completing the MA.

Areas of Concentration

The graduate program in communication is designed to prepare the serious student for teaching, research, publishing, and professional media-related production activities. In consultation with the Graduate Program Director and other faculty advisors and mentors, each student chooses an area of specialization for his or her coursework pursuits that will ultimately lead to the creation of a high quality thesis, professional paper, or media project or result in a meaningful professional internship experience.

Communication Studies

a. Rhetorical Studies:

This concentration includes courses that investigate the socio-political implications of discourse and argument. The working assumption of this area is that public communication influences decision making processes as well as the creation and formation of identity within cultural systems. Research centers on the production and reception of texts in historical contexts. The production of mediated and non-mediated texts and the effects upon larger social institutions are examined as well. Coursework involves the textual, cultural, and social analysis of oral, written, and visual texts. Theoretical frameworks

include generic criticism, deconstruction, argumentation theory, semiotic analysis, feminist criticism, ideological criticism, and more.

b. Interpersonal/Organizational Studies:

Because relationships, groups, teams, and organizations are constituted in human communication, this concentration investigates the relationship between communication and the creation and maintenance of our social relationships in personal, group, and organizational contexts. This area focuses on issues such as how communication creates and sustains friendship, romantic relationships, and family. It also focuses on the influence of organizational structures and networks, how communication creates and maintains unique relational or organizational cultures, how communication affects the adoption of innovations, leadership as constituted by communication, crisis communication, health communication, communication and cohesiveness in groups and teams, and how communication gives voice to organizational members.

Film and Digital Media

We view the media as a cultural product; as such, this concentration includes courses that focus on the production, reception, and influence of mass media texts. Areas of interest include the impact of digital media, the business of media, the historiography of mass media institutions, textual analyses of films, videos, and television, effects of mass media texts, the uses and gratifications of mass media texts, and mass communication law. Production issues in this emphasis revolve around the creation and production of film, audio, video, and interactive texts, while coursework focuses on the use of new technologies in the production of film, television, and video games.

General Requirements for Thesis & Non-Thesis Degree Plans

Graduate students may elect to follow one of three options for completion of the MA degree:

(a) The Thesis option involves the satisfactory completion of 24 hours of coursework (15 hours minimum at the 5000 level) plus 6 hours of thesis (CSS or FDM 5V99).

(b) The Professional Paper or Project option involves the completion of 33 hours of coursework (18 hours minimum at the 5000 level) plus 3 hours for the execution of a professional paper or professional project (CSS or FDM 5V90).

(c) The Professional Internship option involves the completion of 33 hours of coursework (18 hours minimum at the 5000 level) plus 3 hours for the completion of a business or media related internship (CSS 5380 or FDM 5303).

Both the thesis and professional paper/project options require a successful oral defense of the student's work; however, the internship option does not have an oral defense requirement. Most students complete the MA program in two years. A foreign language is not required for graduation.

Programs of Study

MA in Communication—Communication Studies Program

I. Three Pathways to the MA in Communication:

A. 30 hour thesis pathway

B. 36 hour professional project/paper pathway

C. 36 hour professional internship pathway

II. General MA Program Requirements for Communication Studies: 15 hours

A. All CSS graduate students will take CSS 5310 Communication Theory (3 hours).

B. All CSS graduate students must take one research methods course, either CSS 5351 Methods of Graduate Study or CSS 5352 Methods of Rhetorical Criticism (3 hours).

C. All CSS graduate students will take three 5000 level CSS seminar courses (9 hours).

III. Elective Hours Options: 9-18 hours

A. CSS graduate students have the option to take three to six hours of 4000-level CSS courses; however, the 4000-level courses must be approved for graduate credit and appear in the Graduate Catalog.

B. CSS graduate students have the option to take three to six hours of coursework from the FDM division. Or, alternatively, a student may take 3 hours from outside of the department (e.g., Philosophy, Political Science, Psychology). These outside hours must be at the 5000 level and must be taught by a member of the BU graduate faculty.

C. CSS graduate students have the option to take three hours of CSS 5380 Internship in Communication Studies (for non-internship option students only; internship option students take internship hours as part of the requirements for the professional internship pathway to the MA, but not as elective hours).

D. CSS graduate students have the option to take up to six hours of CSS 5V35 Problems in CSS, a.k.a., Independent Study.

E. CSS graduate students may also earn three to six hours through participation in the Baylor in New York or Baylor in London study abroad programs.

IV. Thesis Option: 30 hours

A. 15 hours of required coursework

B. 9 hours of elective coursework

C. 6 hours of thesis work

V. Professional Project/Paper Option: 36 hours

A. 15 hours of required coursework

B. 18 hours of elective coursework

C. 3 hours of professional project/paper work

VI. Professional Internship Option: 36 hours

A. 15 hours of required coursework

B. 18 hours of elective coursework (electives must not include internship hours)

C. 3 hours of Professional Internship

MA in Communication—Film & Digital Media Program

I. Three Pathways to the MA in Communication with a FDM Concentration:

A. 30 hour thesis pathway

B. 36 hour professional project/paper pathway

C. 36 hour professional internship pathway

II. General MA Program Requirements: 15 hours

A. All FDM graduate students will take FDM 5376 Film Theory (3 hours)

B. All FDM graduate students will take four 5000 level seminar courses (12 hours)

III. Elective Hours Options: 9-18 hours in FDM except as noted below

A. FDM graduate students have the option to take six to nine hours of 4000-level

FDM courses; however, the 4000-level courses must be approved for graduate credit and appear in the Graduate Catalog.

B. FDM graduate students have the option to take up to six hours of FDM 5366 Graduate Production Workshop.

C. FDM graduate students have the option to take three additional hours of coursework outside of the FDM division (e.g., CSS, Theatre); these outside hours must be at the 5000 level and must be taught by a member of the BU graduate faculty.

D. FDM graduate students have the option to take three hours of FDM 5303 Internship in Film & Digital Media (for non-internship option students only; internship option students take 3 internship hours as part of the requirements for the professional internship pathway to the MA, but not as elective hours).

E. FDM graduate students have the option to take up to six hours of FDM 5V35 Problems in FDM, a.k.a., Independent Study.

F. FDM graduate students may also earn three to six hours through participation in the Baylor in New York or Baylor in London study abroad programs.

IV. Thesis Option: 30 hours

A. 15 hours of required coursework

B. 9 hours of elective coursework

C. 6 hours of thesis work

V. Professional Project/Paper Option: 36 hours

A. 15 hours of required coursework

B. 18 hours of elective coursework

C. 3 hours of professional project/paper work

VI. Professional Internship Option: 36 hours

A. 15 hours of required coursework

B. 18 hours of elective coursework (electives must not include internship hours)

C. 3 hours of FDM Professional Internship

Admission to the MA Program

The general requirements for admission to the graduate school at Baylor are listed at the beginning of the Graduate Catalog. All applications for admission must be processed through the Graduate School and then are forwarded to the Department of Communication.

Applicants are selected competitively for admittance into the program based on undergraduate GPA, GRE scores, letters of recommendation, a scholarly writing sample, and their personal statement. Students are expected to have a background in communication and/or film and digital media. The graduate faculty reserves the right to require certain foundation courses, as well as advanced courses, according to the needs and specialization of individual students.

Selection of Candidates

In reviewing applications, we look for a combination of academic ability and experience, future goals for professional career development and advancement, and the personality and social skills conducive to a successful career in academia or the professional world. All application materials submitted are considered in our committee-based decision making process; however, minimum requirements for serious consideration include an overall undergraduate GPA of 3.25 or higher, a GRE score approaching the 50th percentile range (or higher) on both verbal and quantitative parts of the exam, a personal statement, an academic/scholarly writing sample, and three letters of recommendation from individuals in a position to provide insight into your academic and scholarly abilities. We also strongly recommend a campus visit to Baylor and personal dialogue with the graduate program director and/or other members of our graduate faculty.

Admission to the graduate program in communication is granted on a rotating basis. Students may enter the program at the beginning of the fall, spring, or summer sessions. However, teaching assistantships are awarded in the spring and usually start in the fall semester of each year. All application materials for students seeking an assistantship must be received on or before February 1 of the year in which the applicant wishes to begin as an assistant. Other deadlines include November 1 for students desiring to begin the program in January (without financial support) and July 1 for students desiring to begin the program in August (without financial support).

Required Application Materials

In addition to the application itself, the overall application process requires a number of items; incomplete applications will not be considered.

1. Official Online Application with Personal Statement
2. Official Transcripts of all college/university work
3. Graduate Record Exam—General Test (less than five years old)
4. Three Letters of Recommendation

5. Academic/Scholarly Writing Sample
6. FDM Production Portfolio (only for students interested in film studies)

International students are required to submit either TOEFL or IELTS scores unless they have received a degree from a U.S. accredited institution of higher education.

JOINT BACHELOR OF ARTS / MASTER OF ARTS IN COMMUNICATION

Director of the Joint BA/MA in Communication: Lacy McNamee

Students pursuing a Bachelor of Arts degree with a major in Communication on the Corporate Communication track may complete the BA and MA degrees concurrently. The joint degree is a traditional 36-hour BA degree combined with a 30-hour MA degree. Under the joint program, both degrees are awarded simultaneously and all requirements in both programs must be completed in order to receive either degree.

Admission & Eligibility

Students must meet the following requirements to apply for the program:

- Enrollment in the Corporate Communication track of the Communication major (Communication Specialist majors may also petition for consideration)
- At the time of application, demonstrate a cumulative undergraduate GPA of 3.0 or higher and major GPA of 3.4 or higher*
- Prior to taking graduate-level credits, obtain senior status (i.e., at least 90 hours completed) and complete 24 CSS hours, earning a C or higher in each CSS course taken*

**Note: Students may petition for special consideration of exceptions to the GPA standard and hours completed*

During the spring semester of their junior year, eligible students must apply for formal admission to the Graduate School (NOTE: This process will not require the GRE). Students should consult with the Joint Degree Program Director to confirm the application deadline (typically, February 1), required materials, and appropriate timing of actual enrollment into the Master's program. Once enrolled, students must earn a "B" (3.0) or higher in the first 12 hours of graduate coursework to remain in good standing in the program.

Degree Requirements

Joint degree students fulfill the requirements of all undergraduate CSS majors on the Corporate Communication track. Any CSS course taken toward completion of the Bachelor degree cannot simultaneously count toward the Master degree. The 30-hour MA requirement for the joint degree is typically completed during the senior and +1 year (traditionally, 12 hours in the senior year and 18 hours in the +1 year). However, students will construct an individual coursework plan with the Joint Degree Program Director.

Curriculum for the MA portion of the Joint Degree**	Semester Hours:
CSS 5V35 (Problems in Speech Communication)	3
CSS 5351 (Methods of Graduate Study)	3
CSS courses, 5000-level	12
Electives (any CSS or interdisciplinary course in Graduate Catalogue)	6
CSS 5V98 (Praxis Practicum) or CSS 5V99 (Thesis)	6
Total Graduate Hours	**30**

***Note: All course selections must have the approval of the Joint Degree Program Director.*

THE INSTITUTE FOR ECOLOGICAL, EARTH, AND ENVIRONMENTAL SCIENCES

Director: Joe C. Yelderman, Jr.
Graduate Program Director: C. Kevin Chambliss

The Institute for Ecological, Earth, and Environmental Sciences (TIE^{3}S) offers a unique program for advanced interdisciplinary study leading to the doctoral (Ph.D.) degree. This program utilizes courses and faculty partners from Anthropology, Biology, Chemistry & Biochemistry, Engineering, Environmental Science and Geology.

Graduate applicants to the program will be required to submit a letter of intent, a supporting letter from a TIE^{3}S Fellow mentor, along with standard GRE scores (taken within the last five years), transcripts, and if necessary TOEFL scores. The letter of intent should indicate a research plan that has been discussed with a potential (TIE^{3}S) Fellow mentor. Applicants are expected to have superior GRE scores and grade point averages. For non-native English speakers, recommended TOEFL scores will be 600 for the "paper" exam and 250 for the "computer" exam.

Students accepted into the program are expected to enter with a master's degree in Biology, Ecology, Geology, Physical Science, Environmental Science, Chemistry or a related discipline. Candidates with a bachelor's degree may be accepted provided they demonstrate through their application exceptional qualities including research experience. A graduate course in basic statistics is also required. Most students are expected to have at least one published work related to their previous research experience. Appropriate background courses or their equivalents for applicants should be in one of the following areas:

- Life Sciences. 24 semester hours in life sciences including courses in ecology, genetics, physiology (animal or plant), and evolutionary biology (e.g., taxonomy or systematics), or
- Physical Sciences. 24 semester hours including courses in geology, earth science, atmospheric science, hydrology, and at least 3 hours in chemistry or biochemistry, or
- Environmental Science. 24 semester hours of science or engineering, including a minimum of 8 hours in advanced chemistry and physical sciences, engineering or environmental science, or
- Chemistry. 24 semester hours including courses in physical chemistry and instrumental analysis, and at least 6 additional hours of course work in one of the three areas listed above.

The degree program has two components: (1) the course work component, and (2) the research component. The course work component requires a qualifying examination early in the Ph.D. program and not less than 60 semester hours, which includes credit for course work beyond the bachelor's degree and approved by the student's committee and the Baylor University Graduate School. Course credit from the master's degree may be applied for by petition to the Graduate School with a maximum of 24 hours allowable. After successfully completing all required course work, the student will concentrate on the remaining research planning leading to the preliminary examination, the doctoral research, dissertation preparation, and the final defense. The dissertation committee administers the preliminary (comprehensive) exam and evaluates the proposal and the student's preparedness in the area of his/her dissertation and related fields. The preliminary exam will include a written and an oral portion. The written exam will assess the student's knowledge of foundations of general areas of Biotic Systems, Physical Systems, and Quantitative Analysis. The oral portion will test the student's knowledge of their proposal background and methodology as an assessment of the student's preparation to move on to the dissertation phase of their program. Admission to doctoral candidacy requires successful completion of the preliminary exam coupled with acceptance of the written dissertation proposal by the doctoral committee.

Specific requirements include a minimum of 60 semester hour credits of approved course work and research credit hours beyond the bachelor's degree, at least 21 of which must be in regular graduate-level foundation courses as required for the Ph.D. by the Baylor University Graduate Catalog. A master's degree from an accredited university may be accepted for up to 24 semester hour credits upon approval of the faculty mentor and Baylor Graduate School. The minimum 60 semester hours required beyond the bachelor's degree may be expanded depending on the student's research concentration, background and recommendation of the graduate committee. Students entering the program with graduate-level work or a master's degree in a related scientific discipline may apply up to 30 semester hours of approved courses toward the Ph.D.

The dissertation will be composed of three published (or submitted) written papers. A student may proceed to the defense with one published work, with two additional submitted manuscripts in national or international journals pertinent to the field of study.

The TIE^{3}S doctoral program does not have a foreign language requirement for the Ph.D. degree;

however, students are strongly encouraged to become competent in technological interface skills including computer programming, instrumentation, or analytical software such as SAS, Mathematika or IDL. At least half of the hours of course work (exclusive of dissertation) must be at the 5000/6000 level. The remaining hours will normally come from the dissertation (minimum of 12 hours) and its associated research, but a portion may be devoted to additional course and laboratory work at the discretion of the student's dissertation committee.

A core curriculum is required and available from the Biology, Chemistry & Biochemistry, Environmental Science, Geology, and Statistics departments. All Ph.D. students must fulfill the core curriculum, which consists of foundational course work associated with the holistic earth system curricula and philosophy of the program. These courses exclude research specialization that will depend on mentor expertise and consultation.

Individual courses cannot fulfill more than one core requirement, but may count toward requirements for specialization areas. Students who have completed equivalent courses in a master's program may request waivers from the Graduate Program Director and Graduate Committee. These foundational competencies are designed to give the student a common base for scientific research in the TIE^{3}S program. A plan for completing the foundation courses is to be prepared by the student and their advisor, and then submitted to the student's graduate committee for approval by the start of the student's second semester. Courses taken to fulfill these requirements must be taken for credit and listed on the student's program of study. An overall GPA of 3.0 must be maintained in these courses. The following are acceptable courses to satisfy competency requirement for these foundational areas:

- Advanced Chemistry Foundation Course (3-4 course hours): CHE 4316 Instrumental Analysis, CHE 4341 General Biochemistry, CHE 5314 Separation Science, ENV 5387 Advanced Environmental Chemistry, GEO 5320 Geochemistry, GEO 5321 Isotope Geochemistry, ENV 4304 Aquatic Chemistry, ENV 5303 Environmental Chemical Analysis, ENV 5370 Advanced Environmental Toxicology and Chemistry, ENV 5387 Advanced Environmental Chemistry, ENV 5393 Atmospheric Chemistry and Physics.
- Numerical Methods of Analysis Foundation Course (3-4 course hours): BIO 5320 Ecological Biophysics, BIO 5340 Ecosystem Process Modeling, BIO 5413 Advanced Ecological Data Analysis, GEO 4386 Remote Sensing, GEO 5348 Applied Groundwater Modeling, ENV 5391 Measurement Methods and Data Analysis for Air Pollution Research, STA 5300 Statistical Methods, STA 5305 Advanced Experimental Design.
- Physical Systems Foundation Course (3-4 course hours): GEO 4341 Introduction to Hydrology, GEO 4346 Hydrogeology, GEO 4459 Engineering Geology, GEO 5308 Advanced Studies in Earth Science, GEO 5340 Paleopedology, GEO 5342 Micromorphology of Soils and Paleosols, GEO 5347 Advanced Hydrogeology, GEO 5389 Earth System Science.
- Ecological Foundation Course (3-4 course hours): BIO 4310 Biogeography, BIO 4405 Limnology, BIO 5300 Climate Change and Biodiversity, BIO/ENV 5330 Conservation Biology, BIO/ENV 5360 Biological Invasions: Ecology and Management, BIO 5377 Landscape Ecology, BIO 5404 Wetland Ecology and Management, BIO 5405 Stream Ecology, ENV 4450 Applied Forest Ecology, ENV 5342 Ecological Risk Assessment, ENV 5379 Ecosystem Management.

Other course requirements include Seminar Courses (2 course hours) such as EEES 6100. Six more credits in upper-division earth science, ecology, environmental science, and chemistry courses most related to the intended research interest. A maximum of 9 hours of Special Problems (5V90 from participating departments) can be applied to degree requirements. The number of upper-division credits required varies with the research program recommended by the student's committee. Completion of any courses listed as prerequisites for the courses listed above is also generally required. Finally, twelve or more credits in dissertation research credit as currently offered as 6V99 courses TIE^{3}S.

Existing Courses Applicable to the Ph.D. Degree Program:

Biology:

BIO	4405	Limnology
BIO	4406	Aquatic Biology
BIO	4418	Biology of Wetland and Aquatic Vascular Plants
BIO	4422	Ichthyology
BIO	4310	Biogeography
BIO	4401	General Microbiology
BIO	4306	Molecular Genetics

BIO 4307 Biochemistry and Physiology of the Cell
BIO 4381 Restoration Ecology
BIO 5201 Research Methods in Biology
BIO 5300 Climate Change and Biodiversity
BIO 5303 Behavioral Ecology
BIO 5306 Molecular Evolution
BIO 5310 Advanced Microbiology
BIO 5320 Ecological Biophysics
BIO 5330 Conservation Biology
BIO 5340 Ecosystem Process Modeling
BIO 5360 Biological Invasions: Ecology and Management
BIO 5377 Landscape Ecology
BIO 5380 Integrative Ecophysiology
BIO 5400 Population Genetics
BIO 5401 Microbial Ecology
BIO 5402 Invertebrate Zoology
BIO 5403 Population Ecology
BIO 5404 Wetland Ecology and Management
BIO 5405 Stream Ecology
BIO 5407 Bioenergetics
BIO 5412 Biometrics
BIO 5413 Advanced Ecological Data Analysis
BIO 5425 Molecular Ecology

Chemistry:

CHE 4316 Instrumental Analysis
CHE 4341 General Biochemistry
CHE 5314 Separation Science

Environmental Science:

ENV 4304 Aquatic Chemistry
ENV 4307 Environmental Law
ENV 4333 Coastal Zone Management
ENV 4344 Fundamentals of Toxicology
ENV 4365 The Environment and Energy
ENV 4375 Natural Landscape Evaluation and Planning
ENV 4349 Introduction to Environmental Engineering
ENV 4355 Principles of Renewable Resource Management
ENV 4321 Energy Economics
ENV 4450 Applied Forest Ecology
ENV 4487 Applied GIS Analysis
ENV 4393 Environmental Ethics
ENV 5303 Environmental Chemical Analysis
ENV 5310 Agricultural Ecology
ENV 5330 Conservation Biology
ENV 5342 Ecological Risk Assessment
ENV 5360 Biological Invasions: Ecology and Management
ENV 5368 Integrated Energy Resource Systems
ENV 5370 Advanced Environmental Toxicology
ENV 5373 Advanced Environmental Biotechnology
ENV 5376 Advanced Urban & Regional Comprehensive Environmental Planning
ENV 5379 Ecosystem Management

ENV 5387	Advanced Environmental Chemistry
ENV 5391	Measurement Methods and Data Analysis for Air Pollution Research
ENV 5393	Atmospheric Chemistry and Physics

Geology:

GEO 4312	Oceanography
GEO 4313	Astronomy
GEO 4314	Meteorology
GEO 4337	Paleoecology
GEO 4340	Geomorphology
GEO 4341	Introduction in Hydrology
GEO 4346	Hydrogeology
GEO 4339	Advanced Marine Field Studies
GEO 4459	Engineering Geology
GEO 4371	Wetlands
GEO 4373	Global Soil Systems
GEO 4375	Natural Landscape Evaluation and Planning
GEO 4485	Introduction to Geographic Information Systems
GEO 4386	Remote Sensing
GEO 4487	Applied GIS Analysis
GEO 5308	Advanced Studies in Earth Science
GEO 5320	Geochemistry
GEO 5321	Isotope Geochemistry
GEO 5337	Advanced Studies in Remote Sensing Geomorphology
GEO 5340	Paleopedology
GEO 5342	Micromorphology of Soils and Paleosols
GEO 5347	Advanced Hydrogeology
GEO 5348	Applied Ground Water Modeling
GEO 5349	Urban Geology
GEO 5378	Advanced Studies in Hydrogeology
GEO 5388	Advanced Studies in Hydrology-Engineering Geology
GEO 5389	Earth System Science

TIE³S:

EEES 6100	Seminar in Ecology, Earth, and Environmental Sciences
EEES 6V99	Dissertation in Ecology, Earth, and Environmental Sciences

SCHOOL OF EDUCATION

Graduate programs in the School of Education seek to prepare students for professional roles in teaching, administration, school psychology, quantitative methods, gifted and talented, special education, applied behavior analysis, learning and development, and related areas. Each program emphasizes the development of an eclectic understanding of the educational process as well as a competency in a specific area. The balance between theory/research and practice leads to the development of a professional who can adapt to a variety of educational situations and effectively implement educational programs. Students will demonstrate not only high levels of academic ability but outstanding interpersonal skills, motivation, and dedication to the profession. Graduate degrees in the School of Education are offered through the School and the Departments of Curriculum and Instruction, Educational Leadership, and Educational Psychology. The School of Education offers the Master of Arts in Teaching (M.A.T.). The Department of Curriculum and Instruction offers the Master of Arts (M.A.), Master of Science in Education (M.S.Ed.), Doctor of Education (Ed.D.), Doctor of Philosophy (Ph.D.), joint Master of Arts (M.A.) and Master of Divinty (M.Div.), and the joint Master of Science in Education (M.S.Ed.) and Master of Divinity (M.Div.) The Department of Educational Leadership offers the Master of Science in Education (M.S.Ed.), the Doctor of Education (Ed.D.), and the Doctor of Philosophy (Ph.D.). The Department of Educational Psychology offers the Master

of Arts (M.A.), the Master of Science in Education (M.S.Ed.), the Education Specialist (Ed.S.), and the Doctor of Philosophy (Ph.D.).

Admission

The general procedures for admission to graduate study are listed earlier in the Graduate Catalog. All applications for admission must be processed through the Graduate School and then forwarded to the appropriate department's Graduate Program Director in the School of Education for recommendation. The "major" on the application should list the department or certification area in which the student intends to study.

Applicants should consult the individual department sections in the School of Education for specific test requirements. The GRE General Test (or, where allowed by the department, GMAT) is required of most students applying for admission to any level of graduate study, including non-degree, in the School of Education. Scores must be received before any action will be taken on the application and before any course work may be taken. The GRE is not required for admission into the Doctor of Education (Ed.D.) in Learning and Organizational Change in the department of Curriculum and Instruction.

GPAs that are predictive of success are required for full admission without restrictions on the student's graduate work. In addition to these academic variables, students are evaluated on the basis of their writing skills and their background strengths, including the strength of their undergraduate institution and academic program, the diversity of their undergraduate experiences, and their professional experiences. A student's application may be strengthened by his/her professional development, diversity, and career focus. Specific criteria have been established to evaluate each of these categories, and an admissions committee makes the final decision concerning a student's admission.

MASTER OF ARTS AND MASTER OF SCIENCE IN EDUCATION

The Master of Arts in Education requires a total of 30-33 semester hours, including the satisfactory completion of a thesis.

The Master of Science in Education requires the completion of a minimum of thirty-six semester hours of graduate work, twenty-one of which must be from a single department or in a specific certification program, and eighteen of which must be 5000 level or above. Departments may require more than the minimum, particularly for degrees related to certification or licensure. Please see the section of the catalog that describes departmental programs. The Department of Curriculum and Instruction offers the following programs: master reading teacher certification, specializations in instructional technology, math education, science education, social studies education, language and literacy, urban education, informal education, media literacy, and other content teaching fields. The Department of Educational Psychology offers the following programs: master of arts and master of science in education with specializations in assessment, research and statistics, learning and development, special education, gifted and talented, applied behavior analysis, and quantitative methods.

MASTER OF ARTS IN TEACHING

The Master of Arts in Teaching requires the completion of a minimum of thirty-six semester hours of graduate work leading to teacher certification. Certification and the Master of Arts in Teaching degree may be pursued concurrently; however, some of the M.A.T. programs require additional coursework for the certification. Please see the section of the catalog that describes M.A.T. certification program options. The M.A.T. may be pursued as a joint degree program, with undergraduate seniors completing graduate-level work as part of their undergraduate degree program, if approved by their home department.

MASTER OF ARTS/MASTER OF DIVINITY
MASTER OF SCIENCE IN EDUCATION/ MASTER OF DIVINITY

The Master of Arts/Master of Divinity and the Master of Science in Education/Master of Divinity joint degrees link the faculties, resources, and education of two of Baylor's premier schools, School of Education and George W. Truett Theological Seminary. The program offers students an education that prepares them for careers in local congregations, in denominational leadership, in private school teaching and administration, or in some combination of these.

EDUCATION SPECIALIST

The program leading to the Education Specialist degree (Ed.S.) is for students who demonstrate promise in certain fields of education and who desire to gain additional proficiency in these fields. Such a program is to assist in preparing primarily school psychologists. The basis for this study is comprehensive knowledge in some field of education. The minimum residence requirements are thirty semester hours of study beyond the master's degree at Baylor University. Yet, these thirty semester hours of credit are not to be the sole criteria in determining whether students have completed the program. In addition, consideration will be given to students' overall record, including course work, special field examinations, and distinguished accomplishments. At the termination of the period of study, students must pass a comprehensive special field examination. Upon completion of the program, which includes the passing of the examination, the faculty of the School of Education will recommend that the University present the students with an Education Specialist degree.

DOCTOR OF EDUCATION

Admission requirements for the Doctor of Education Degree (Ed.D.) in the Departments of Curriculum and Instruction and Educational Leadership are outlined earlier in the Graduate Catalog.

Delivered by the Department of Curriculum and Instruction, the Doctor of Education (Ed.D.) in Learning and Organizational Change prepares students to apply essential principles of teaching and learning to manage the dynamics of organizational change. The program is designed for experienced educators and other professionals in learning and development roles interested in leading and managing positive change in school systems, corporations, governmental or non-governmental agencies, and community programs. The Ed.D. in Learning and Organizational Change is a 54-credit program that can be completed in 36 months or on a flexible schedule. The program consists of two on-campus immersion experiences and a final Capstone course in which the innovative Problem of Practice is completed.

Students may enroll in the Department of Educational Leadership upon completion of admission requirements and acceptance into the K-12 Education Leadership program. Preparation for Texas Superintendent Certification is part of the program; however, the primary intent of the degree is to prepare professionals with in depth understanding of leadership skills and knowledge important in leadership functions. Candidates are expected to learn to effectively frame and develop solution options for challenging complex problems of practice facing executive leadership in K-12 education. A minimum of sixty-five semester hours beyond the master's degree is required for completion of the program. The supervisory committee based upon the student's prior preparation and the student's performance on written and oral examinations will determine the total number of hours required above the minimum. At least thirty-three hours of work must be completed in the educational leadership–management core, twelve hours in disciplined inquiry, three hours in persuasive communication, and eleven hours in clinical experience and six hours in dissertation. Students may wish to also pursue an additional emphasis in a special 12-hour professional specialty/cognate area outside of K-12 leadership, with the approval of the committee, to support their major work.

DOCTOR OF PHILOSOPHY

Students pursuing a Ph.D. in Educational Psychology are those interested in becoming instructors in higher education settings and competent researchers. Students must meet the admission requirements outlined earlier in the Graduate Catalog and must also meet the Department of Educational Psychology entrance requirements. These requirements for the Doctor of Philosophy (Ph.D.) are outlined in more detail within the program descriptions in the Department of Educational Psychology. The Doctor of Philosophy in Curriculum and Teaching prepares graduate students for university-based leadership in the field of Curriculum and Teaching. Admission requirements are listed in the Curriculum and Instruction section.

SCHOOL OF EDUCATION

Dean: Terrill Saxon
M.A.T. Graduate Program Director: Suzanne M. Nesmith

One graduate degree program is offered through the School of Education: Master of Arts in Teaching (M.A.T.).

MASTER OF ARTS IN TEACHING (M.A.T.) WITH TEACHING CERTIFICATION

The Master of Arts in Teaching (M.A.T.) is a School-wide residential program offering teacher certification. Based on Baylor's national award-winning teacher-education model, the M.A.T. provides thorough preparation through a program rich in faculty-guided field-based experiences.

Baylor undergraduates may pursue the M.A.T. as a joint degree program, with Baylor seniors taking up to 15 hours of graduate-level work as part of their undergraduate degree program, if approved by their home department. Students much first be admitted to the Graduate School and the M.A.T. program. Upon completion of the M.A.T., students will receive the bachelor's degree and M.A.T. simultaneously. If taking full advantage of the option, students could graduate within 12 months of their originally scheduled baccalaureate graduation. The M.A.T. is also available to graduates of Baylor and other universities as a stand-alone post-baccalaureate master's program offering initial teacher certification.

Admission

To be fully admitted to the program, applicants must be accepted both by the Baylor Graduate School and the School of Education as an M.A.T. candidate. A passing score on the TExES content exam (state certification exam) is also required for full admission as a candidate in the School of Education M.A.T. Educator Preparation Program.

Admission to the program is competitive and based on the following criteria:

1. Completed applications (Graduate School and School of Education)
2. Overall GPA of 2.75
3. Content Area GPA of 2.75
4. Completed content-specific coursework for middle and secondary education certifications
   a. 24 hours in content field with at least 12 of these hours at the upper level (junior or senior level coursework)
5. Interview
6. Writing sample (personal statement)
7. Passing score on TExES (Texas Examinations of Educator Standards) content exam in teaching area
   a. For those seeking middle and secondary education certification, you must complete and earn a passing score on the diagnostic exam in your designated teaching area prior to admission to the M.A.T. program.
   b. For those seeking EC-6 Elementary certification or All Level Special Education certification (with or without supplemental certifications in Gifted Education or Special Education), you must complete the diagnostic exam for all 5 core subject exams and earn a passing score on at least 3 of the 5 exams, with one of the passing scores being on the mathematics core subject exam. Additionally, all scores will be examined to determine the need for additional review, preparation, and retesting prior to admission to the M.A.T. program.

Certificate and Endorsement Programs

Certification and the Master of Arts in Teaching degree may be pursued concurrently; however, some of the M.A.T. programs require additional coursework for the certification.

Certification is through the State Board for Educator Certification and the awarding of a graduate degree from Baylor University does not mean the individual has been certified. For further information on certification, please contact the School of Education or the State Board for Educator Certification.

Certificate Options

Twice Exceptionalities (All-Level Special Education and Gifted-Talented Supplemental certifications)
Special Education (All-Level Special Education certification)
Elementary (EC-6) Education (Early Childhood – Grade 6 General Education certification)
Elementary (EC-6) Education with Gifted-Talented Supplemental (Early Childhood - Grade 6

General Education and G/T supplemental certifications)
Elementary (EC-6) Education with Special Education Supplemental (Early Childhood - Grade 6 General Education and EC-6 SPED supplemental certifications)
Middle Grades Education (Grades 4-8 content-specific certification)
Secondary Education (Grades 7-12 content-specific certification / 6-12 for physical science certification)

Content Areas (Middle and Secondary Education):

Art
Business
English (English Language Arts and Reading)
Life Science
Mathematics
Physical Science
Science
Social Studies
Spanish

M.A.T. Degree Plan for Twice Exceptionalities Certification

(All-Level Special Education and Gifted-Talented Supplemental certifications)

Required Courses for MAT			**36 sem. hrs.**
Required Courses for Certification Program			**36 sem. hrs.**
EDP	5332	Human Growth and Development	
EDP	5366	Psychology of Exceptional Children	
EDP	5377	Applied Behavior Analysis	
EDP	4350	Introduction to the Gifted Child	
TED	4312	ESL or elective	
EDU	5350	Teaching Associate SPED with Gifted Education	
EDU	4375	Mathematics for Learners with Exceptionalities	
EDU	5371	Assessment of Students	
EDU	5652	Internship SPED with Gifted Education	
EDU	5354	Curriculum Differentiation	
EDU	4374	Literacy for Learners with Exceptionalities	

M.A.T. Degree Plan for Special Education Certification

(All-Level Special Education certification)

Required Courses for MAT			**36 sem. hrs.**
Required Courses for Certification Program			**39 sem. hrs.**
EDP	5332	Human Growth and Development	
EDP	5366	Psychology of Exceptional Children	
EDP	5377	Applied Behavior Analysis	
EDP	4361	Developmental Disabilities	
EDP	5364	Teaching Associate SPED (mod/severe)	
EDP	5363	Teaching Associate SPED	
EDP	5379	Education of Students with Mod/Severe*	
EDU	4375	Mathematics for Learners with Exceptionalities	
EDU	4374	Literacy for Learners with Exceptionalities	
EDU	5371	Assessment of Students	
EDP	5662	Internship	
EDU	5354	Curriculum Differentiation	

*Courses required for certification program

M.A.T. Degree Plan for Elementary (EC-6) Education Certification

(Early Childhood through Grade 6 General Education certification)

Required Courses for MAT			**36 sem. hrs.**
Required Courses for Certification Program			**36 sem. hrs.**
EDC	5392	Issues in Diversity	
EDC	5332	Mathematics in Elementary School	
EDC	5360	Science in Elementary School	

EDC	5300	Advanced Social Studies Methods Elementary School
EDC	5304	Problems Teaching Reading
EDC	5310	Discipline and Classroom Management
EDC	5690	Teaching Associate
EDC	5699	Internship
EDC	5318	Integrating Language Arts in the Elementary School
EDC	x3xx	Elective

M.A.T. Degree Plan for Elementary Education with G-T Supplemental Certification

(Early Childhood through Grade 6 General Education and Gifted-Talented Supplemental certifications)

Required Courses for MAT **36 sem. hrs.**

Required Courses for Certification Program **45 sem. hrs.**

EDP	5332	Human Growth and Development
EDP	5366	Psychology of Exceptional Children
EDP	4350	Introduction to the Gifted Child*
EDP	5377	Applied Behavior Analysis
EDC	5332	Mathematics in Elementary School
EDC	5360	Science in Elementary School
EDC	5300	Adv. Social Studies Methods in Elementary School
EDC	5304	Problems Teaching Reading
EDU	5650	Teaching Associate EC-6 with Gifted Ed
EDU	5651	Internship EC-6 with Gifted Ed*
EDC	5318	Integrating Language Arts in the Elementary School
EDU	5354	Curriculum Differentiation
EDU	5371	Assessment of Students

*Courses required for certification program

M.A.T. Degree Plan for Elementary Education with SPED Supplemental Certification

(Early Childhood through Grade 6 General Education and EC-6 Special Education Supplemental certifications)

Required Courses for MAT **36 sem. hrs.**

Required Courses for Certification Program **48 sem. hrs.**

EDP	5332	Human Growth and Development
EDP	5366	Psychology of Exceptional Children
EDP	5377	Applied Behavior Analysis
EDU	5354	Curriculum Differentiation
EDC	5332	Mathematics in Elementary School
EDU	4375	Mathematics for Learners with Exceptionalities
EDC	5360	Science in Elementary School
EDC	5300	Adv. Social Studies Methods in Elementary School
EDC	5304	Problems Teaching Reading
EDC	5318	Integrating Language Arts in the Elementary School
EDP	4370	Literacy for Learners with Exceptionalities
EDU	5371	Assessment of Students
EDU	5690	Teaching Associate EC-6 with SPED*
EDU	5662	Internship EC-6 with SPED*

*Courses required for certification program

M.A.T. Degree Plan for Middle Grades Education Certification

(Grades 4 – 8 content-specific certification)

Required Courses for MAT **36 sem. hrs.**

Required Courses for Certification Program **36 sem. hrs.**

EDC	5392	Issues in Diversity
EDC	5303	Models of Teaching
EDC	5370	Technology Integration
EDC	5310	Discipline and Classroom Management

TED	43xx	Content Curriculum (or EDC 53xx)
TED	5342	Data Analysis and Instruction
EDC	5691	Teaching Associate
EDC	5699	Internship
EDC	5363	Ob. and Participation in Middle/Secondary Schools
EDC	x3xx	Elective in Curriculum/Instr/Tech/Prof Growth

M.A.T. Degree Plan for Secondary Education Certification

(Grades 7 – 12 content-specific certification / 6 – 12 for physical science certification)

Required Courses for MAT **36 sem. hrs.**

Required Courses for Certification Program **36 sem. hrs.**

EDC	5392	Issues in Diversity
EDC	5303	Models of Teaching
EDC	5317	Special Techniques in Secondary Schools
EDC	5310	Discipline and Classroom Management
TED	43xx	Content Curriculum (or EDC 53xx)
EDC	5390	Teaching Associate Seminar
EDC	5350	Teaching for Understanding (or graduate level content course)
EDC	5699	Internship
EDC	5363	Ob. and Participation in Middle/Secondary Schools
EDC	x3xx	Elective in Curriculum/Instr/Tech/Prof Growth
EDC	x3xx	Elective in Curriculum/Instr/Tech/Prof Growth

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Chairperson: Larry J. Browning
Graduate Program Director: Tony Talbert

Four graduate degree programs are offered through the Department of Curriculum and Instruction: Master of Arts (M.A.), Master of Science in Education (M.S.Ed.) Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.). Two joint degrees, the M.A/M.Div. and the M.S.Ed./M.Div., are offered through an agreement with the George W. Truett Theological Seminary.

Graduates from the Baylor University School of Education with master's or doctoral degrees in Curriculum and Instruction are found throughout the world, occupying a variety of unique positions. Their successes are due in large measure to the quality of the program they completed at Baylor. These graduates reflect the mission of the School of Education, which is to prepare educators for leadership, research, instructional and other professional roles to meet the demands of a dynamic and culturally diverse world.

Goals of the Master's Programs

Students completing the master's in Curriculum and Instruction will demonstrate an understanding of: 1) the philosophical and historical foundations of curriculum, 2) research methodologies in education, 3) contemporary instructional strategies, 4) issues and trends in curriculum and instruction, including issues of social justice in education, and 5) the relationship between curriculum, culture and diversity.

Goals of the Doctoral Programs

Students completing the Doctor of Education and the Doctor of Philosophy in Curriculum and Instruction will: 1) demonstrate an in-depth understanding of the philosophical and historical foundations of curriculum in the western world as a whole and in the United States in particular, 2) demonstrate a knowledge of contemporary instructional strategies, 3) plan, implement and analyze a research project in the field of education, 4) critically evaluate quantitative and qualitative research findings, 5) develop competency in technologies used in data analysis, 6) be knowledgeable of contemporary teacher education practices, 7) participate in the preparation of undergraduate teacher education students, 8) develop an expertise in a cognate specialization.

MASTER OF ARTS (M.A.)

The Master of Arts degree is designed to develop a scholarly understanding of educational thought and practice. It seeks to prepare students for continued graduate study in a research program.

The Master of Arts (M.A.) degree requires a total of thirty-three semester hours, including the completion and defense of a thesis. The degree program constitutes a twenty-one hour major in

Curriculum and Instruction and a twelve-hour cognate specialization approved by the Curriculum and Instruction Graduate Faculty Committee. The cognate may be completed in graduate programs offered by the School of Education (such as Educational Studies, Instructional Technology, Language and Literacy, Social Studies Education, Urban Education, Informal Education, Media Literacy, Science Education, or Mathematics Education) or by other Baylor University academic units.

Admission (M.A.)

The general requirements for admission to the Master of Arts degree in the Department of Curriculum and Instruction follow the requirements outlined earlier in this catalog for the Master's degree. All applicants must submit an official transcript to indicate completion of a baccalaureate degree from a regionally accredited institution, scores from within the last five years for the General Test of the GRE, a curriculum vita/resume, a professional goals statement, and three letters of recommendation. Admission is competitive and based on a review of the application materials. The Department of Curriculum and Instruction Graduate Program Director and the Graduate Faculty Committee conduct the review. The review may include an on-campus interview and/or an on-site writing sample.

M.A. Degree Plan

M.A. students follow the M.S.Ed. Degree plan with three exceptions: 1) 15 hours rather than 18 hours in the Curriculum and Instruction Core, 2) the required cognate is 12 hours, and 3) the six hours of electives are dedicated to thesis preparation and defense.

MASTER OF SCIENCE IN EDUCATION (M.S.ED.)

The Master of Science in Education (M.S.Ed.) is a professional degree designed to improve educational practice and to provide preparation for continued graduate study in education.

The degree requires the completion of a minimum of thirty-six semester hours in graduate work with a eighteen-hour Department of Curriculum and Instruction core, a fifteen-hour cognate specialization, and three hours of approved electives. The cognate may be used to develop a specialty area related to education or to improve preparation in a teaching field. With approval, up to fifteen hours may be taken outside the School of Education. Specialty areas offered in the Department of Curriculum and Instruction, include, but are not limited to: Educational Studies, Instructional Technology, Language and Literacy, Social Studies Education, Urban Education, Informal Education, Media Literacy, Science Education, and Mathematics Education.

A written Comprehensive Examination upon program completion is required for the Master's degree.

Admission (M.S.Ed.)

The general requirements for admission to the Master of Science in Education degree in curriculum and instruction follow the requirements outlined earlier in this catalog for the Master's degree. All applicants must submit an official transcript to indicate completion of a baccalaureate degree from a regionally accredited institution, recent scores from the General Test of the GRE taken within the last five years, a curriculum vita/resume, a professional goals statement, and three letters of recommendation. Admission is competitive and based on a review of the application materials. The Department of Curriculum and Instruction Graduate Program Director and the Graduate Faculty Committee conduct the review. The review may include an on-campus interview and/or an on-site writing sample.

M.S.Ed. Degree Plan

Required courses	**18 sem. hrs.**
EDC 5321 Contemporary Curriculum	
EDC 5303 Models of Teaching	
EDC 5348 Issues in Curriculum and Instruction	
EDP 5335 Research in Education	
EDC 5370 Technology Fundamentals	
EDC 5391 Social Foundations of Education	
Electives	**3 sem. hrs.**
An approved elective at the 5000-level	
Cognate Area	**15 sem. hrs.**
These courses are determined during advisement.	
Total	**36 sem. hrs.**

MASTER OF ARTS/MASTER OF DIVINITY
MASTER OF SCIENCE IN EDUCATION/
MASTER OF DIVINITY

The Master of Arts/Master of Divinity and the Master of Science in Education/Master of Divinity joint degrees link the faculties, resources, and education of two of Baylor's premier schools, School of Education and George W. Truett Theological Seminary. The program offers students an education that prepares them for careers in local congregations, in denominational leadership, in private school teaching and administration, or in some combination of these. The MSEd is a 36 hour program in Department of Curriculum and Instruction with a 15 hour cognate and the MA is a 33 hour program with a 12 hour cognate and a thesis.

M.A./ M.Div. Degree Plan

Required courses **15 sem. hrs.**
- EDC 5303 Models of Teaching
- EDC 5321 Contemporary Curriculum
- EDC 5370 Technology Fundamentals
- EDC 5348 Issues in Curriculum and Instruction
- EDC 5391 Social Foundations of Education
- EDP 5335 Research in Education or other approved courses

Master's Thesis **6 sem. hrs.**
- EDC 5V99 Master's Thesis

Cognate Area **12 sem. hrs.**
- Seminary courses or approved EDC courses

Total **33 sem. hrs.**

M.S.Ed. / M.Div. Degree Plan

Required courses **18 sem. hrs.**
- EDC 5303 Models of Teaching
- EDC 5321 Contemporary Curriculum
- EDC 5370 Technology and Fundamentals
- EDC 5348 Issues in Curriculum and Instruction
- EDC 5391 Social Foundations of Education
- EDP 5335 Research in Education or other approved courses

Electives **3 sem. hrs.**
- EDC 5V99 Master's Thesis

Cognate Area **12 sem. hrs.**
- Seminary courses or approved EDC courses

Total **36 sem. hrs.**

DOCTOR OF EDUCATION DEGREE (ED.D.)

Organizations evolve at the hands of motivated leaders who posess the skills to impart systemic change, whether those systems are present in schools and universities, government or private corporations, or nonprofit organizations. Through the online Ed.D. degree in Learning and Organizational Change, students learn to examine educational practices in all settings by taking both a micro and macro view of learning. Graduates emerge prepared to address cross-functional challenges, influence systemic growth opportunities, and foster effective learning environments based on data-driven processes. Graduates of the Ed.D. program often pursue careers in leadership roles such as Education-focused entrepreneurs, Coordinators of learning and development, Educational consultants, Adult learning facilitator, Curriculum developers, Directors of human resources, or K-12 school system administrators.

The online Ed.D. in Learning and Organizational Change is a 54-credit program that can be completed in 36 months or on a flexible schedule. The program consists of two on-campus immersion experiences and a final Capstone course. Immersions bring students together with peers and professors at on-campus experiences at Baylor University. The immersion experience, held twice during the program, allows participants to apply new skills and creatively solve problems collaboratively. The capstone experience provides studnets with the opportunity to engage in research applicable to their

own professional experiences, preparing them to implement meaningful learning and organizational change in those professional settings.

This program emphasizes the development of a broad understanding of the educational process as well as building a skill set that can be adapted to a variety of educational leadership situations. Courses take a practitioner-oriented approach to shaping transformative leaders with expertise in the fields of curriculum, teaching and learning, and organizational change. Through this practitioner-focused curriculum, students in the online online Ed.D. will develop a multitude of skills that can be applied across professional settings. Upon completion, students will be prepared to demonstrate leadership in areas such as: curriculum design and instruction, dynamics of organizational change, contextual learning and design, program assessment and evaluation, professional development, research design evaluation, assessment, and measurement.

Admission (Ed.D.)

Applicants to the online Ed.D. in Learning and Organizational Change program must hold a master's degree with a GPA that demonstrates strong academic success, which is normally 3.0 or higher. The online Ed.D. program starts three times per year — in January, May, and August. The admissions team accepts and reviews applications year-roud on a rolling basis. Successful applicants possess backgrounds that demonstrate an ability to excel in a doctoral program and a strong desire to have a positive impact in their field. GRE test scores are not required to apply to the online Ed.D. in Learning and Organizational Change program.

All applicants must submit the online application, a resume/curriculum vitae, official transcripts of baccalaureate and master's degrees from accedited institutions, three letters of recommendation, a personal statement, and a video introduction.

Ed.D. Degree Plan

Year 1 **24 sem. hrs.**

Semester 1

EDC 5392	Issues in Diversity
EDC 6336	Qualitative Research Methods

Semester 2

EDC 5303	Models of Teaching
EDC 5391	Social Foundations in Education

Semester 3

EDP 5334	Statistical Methods
EDC 6291	Problem of Practice Phase One

Year 2

Semester 1

EDC 5350	Teaching of Understanding
EDP 5327	Educational Evaluation

Semester 2

EDC 6360	Instructional Design
EDP 5333	Psychology of Learning

Semester 3

EDC 6359	Mixed Methods Research
EDC 6292	Problem of Practice Phase Two

Year 3

Semester 1

EDC 6361	Leadership and Organizational Change
EDC 6362	Community Leadership and Collaboration

Semester 2

EDC 5374	Curriculum and Technology
EDC 6364	Mentoring and Supervision*

Semester 3

EDC 6365	Philosophy and Ethics in Leadership
EDC 6393	Problem of Practice Final Phase: Capstone

*Pending Approval

DOCTOR OF PHILOSOPHY IN CURRICULUM AND TEACHING (PH.D.)

The Doctor of Philosophy in Curriculum & Teaching prepares graduate students for university-based leadership in the field of Curriculum and Teaching. The degree requires a minimum of seventy semester hours of graduate work arranged in five blocks of courses: I) Foundations of Education, II) Curriculum and Teaching, III) Research and Statistics, IV) Cognate, and V) Pro Seminar. All Ph.D. in C&T students complete a fifteen-hour cognate that typically consists of course work from both inside and outside of the School of Education. Common cognate choices include mathematics, history, English, social studies, science, moral education, philosophy, literacy, curriculum theory, urban education, media literacy, informal education, and foundations of education. The degree plan may exceed 70 hours if students choose to complete additional courses.

Admission (Ph.D.)

Admission to the Ph.D. program in Curriculum & Teaching is selective. Admission is based upon student vocational and professional goals as well as a variety of background, skill sets/aptitudes, and dispositional factors that indicate potential success in the program. The expectations are an expressed commitment for the university-based preparation of future teachers and other educators, promising academic aptitude, successful experience teaching in a K-12 setting, dispositions relevant to being an ethically-principled teacher educator/researcher, strong interpersonal and foundational communication skills (especially writing ability), and reasonable fit with available Baylor faculty resources. All applicants must submit scores from the General Test of GRE taken within the last five years, official transcripts of baccalaureate and master's degrees from regionally accredited institutions, a curriculum vita/resume, a professional goals statement, and three letters of recommendation. A writing sample may also be required after review of GRE writing score.

Admission is competitive and based on a review of the application materials. Preference in admissions is given to applicants who have prior K-12 teaching experience. The Department of Curriculum and Instruction Graduate Programs Director and the Graduate Faculty Committee conduct the review. The review may include an on-campus interview and/or an on-site writing sample.

Students are not admitted on probation to the Ph.D. program.

Ph.D. Degree Plan

Block I: Foundations of Education

Total hours required: 15

- EDC 5392 Issues in Diversity
- EDC 6330 History of American Education (required--Foundational Core)
- EDC 6331 Sociopolitical Context of Schooling
- EDC 6345 Christian Faith and Education (required--Foundational Core)
- at least one 5000 or 6000-level approved elective

Block II: Curriculum and Teaching

Total hours required: 15

Students choose 15 hours from the following:

- EDC 5350 Teaching for Understanding
- EDC 6310 Seminar in Curriculum and Instruction
- EDC 6311 Fundamentals of Curriculum
- EDC 6355 Concepts of Teaching or appropriate substitute
- at least one 5000 or 6000-level approved elective

Block III: Research and Statistics

Total hours required: 24

- EDP 5335 Research in Education (required--Foundational Core)*
- EDP 6360 Experimental Design I (required; Statist. Methods pre-requisite)
- EDC 6336 Qualitative Research and Data Analysis (required)
- EDC 6V99 Dissertation Hours (minimum of 9 hours required)

In addition to the above required R&S courses, students choose 9 hours from the following:

- EDP 6361 Experimental Design II

- EDC 6339 Ethnographic Research Methods in Education
- EDC 6359 Mixed-Methods Research Design and Analysis
- EDC 6370 Case Study Research Methods and Analysis
- EDP 6362 Applied Multiple Regression/Correlation Analysis in Education
- Or approved elective

Block IV: Cognate Area Options
Total hours required: 15 minimum

Specific courses in cognate area will be selected by students and their adviser. Courses may be taught by a variety of Baylor departments. Examples of cognates include:

- Curriculum Theory
- English
- Foundations of Education
- History
- Instructional Technology
- Literacy
- Mathematics
- Urban education
- Religion and Education
- Science
- Social Studies
- Urban education, media literacy and informal education
- Or other cognate approved by the Department faculty

Block V: EDC 6101 Professional Seminar
Total hours required: 1

The purpose of the Professional Seminar (proseminar) course is to prepare students to enter tenure-track faculty appointments with a clear understanding of what they will need to do in order to thrive in the university environment.

Total number of hours in the program: 70

The Ph.D. Degree plan is often modified during advisement on an individual basis to meet each student's needs.

*Denotes Foundational Core Courses that are required of all students: 18 hours

DEPARTMENT OF EDUCATIONAL LEADERSHIP

Acting Chairperson: Jeffrey Petersen

Mission

The primary mission of the department is to prepare quality leadership for elementary and secondary schools, school districts, colleges, universities, and sport settings.

Degree and Certification Programs

The following degrees are offered through the Department of Educational Leadership:
Master of Science in Education (M.S.Ed.)
(Higher Education and Student Affairs)
(Principal Certification Preparation)
(Sport Management)
Doctor of Education in Educational Leadership (Ed.D.)
(K-12 Educational Leadership)
Doctor of Philosophy in Higher Education Studies and Leadership (Ph.D.)

MASTER OF SCIENCE IN EDUCATION
HIGHER EDUCATION & STUDENT AFFAIRS (HESA)

The Higher Education & Student Affairs program curriculum places emphasis on developing student affairs educators who are able to apply theories of college student development, organization, and administration to higher education environments. In addition, because of Baylor's unique position as a Christian research university, students explore the role of faith-based colleges and universities in U.S. higher education.

Each fall cohorts of approximately fifteen full-time (and a small number of part-time students) are typically enrolled. Students come from various large public universities, small liberal arts colleges, and private institutions within the United States and occasionally from abroad. Graduates serve at institutions across the country and work in a variety of higher education positions such as student affairs, enrollment management, academic advising, and academic support programs.

The application deadline for fall admission each year is January 1. Applications by December 1 are encouraged when possible. A completed application consists of: 1) an application to the Baylor University Graduate School and application fee; 2) official transcripts from any institution of higher education attended; 3) official Graduate Record Exam (GRE) scores; 4) three letters of recommendation; and 5) a statement of interest and resume. Each element of the application packet is considered. Although there are no minimum requirements for admission, the faculty recommends a minimum undergraduate grade point average of 3.0, a GRE combined score of at least 300, and a GRE analytical score of at least 4.0. The Higher Education & Student Affairs Program represents an important partnership between the School of Education and the Division of Student Life. As such, full-time students are required to have a graduate apprenticeship that extends the classroom experience to day-to-day practice.

Courses in the program include the following:

EDL 5100	Professional Seminar in Higher Education and Student Affairs
EDL 5379	Foundations and History of Higher Education Leadership
EDL 5370	Psychosocial Development in College Students
EDL 5371	Cognitive-Structural Development in College Students
EDL 5372	Culture and Organization of Higher Education
EDL 5394	Planning, Budgeting & Human Resources in Higher Education
EDL 5273	Person-Environment Theories
EDL 5300	Research Applications
EDL 5336	Qualitative Research in Higher Education
EDP 5329	Counseling Theories and Techniques
EDL 5391	Cultural Issues in Higher Education
EDL 5374	Moral and Faith Development in College Students
EDL 5392	Higher Education and the Law
EDL 5399	Faith-Based Higher Education
EDL 5378	Capstone Course or
EDL 5V99	Thesis

Transfer

A maximum of six semester hours may be transferred from an accredited institution toward a master's degree. Credit for graduate course work transferred from other universities is subject to the following provisions: 1) the work must be equivalent to Baylor graduate-level courses and must have been completed while a student was enrolled in good standing as a graduate student; 2) the work must have been done within five years prior to matriculation into the master's degree program; 3) the school from which the credits are transferred must be accredited by a regional accreditation agency; 4) the student must have earned a letter grade of "B" or above--audited courses or courses taken for "pass/fail" credit will not transfer; 5) none of the transfer course work consists of extension or workshop courses; and 6) petition for transfer of credit occurs after enrollment in the Graduate School. Courses taken at Baylor as a "transfer of credit," post baccalaureate, or non-degree graduate student may be petitioned as a transfer credit toward a graduate degree only after admission to a Baylor graduate program.

First Year Mid-Point Exams

After the conclusion of the first year of study, students will complete a mid-point exam by responding to 3 one-hour essay questions. Responses will be used to assess a student's learning, and ability to apply learning, to the program's foundational bodies of knowledge. These are: 1) student development theory; 2) organizational theory; and 3) faith-based higher education. Two faculty members will review a student's response to essay questions and render a rating. The rating scale (in descending order of performance) is: [5] thorough knowledge, understanding, and application, [4] better than adequate

knowledge, understanding, and application, [3] adequate knowledge, understanding and application, [2] less than adequate knowledge, understanding, and application, and [1] not acceptable knowledge, understanding, and application. A student must receive a rating of 3 or better to continue in the program. A student receiving an inadequate rating may petition the graduate program director for the opportunity to re-take the exam one additional time.

MASTER OF SCIENCE IN EDUCATION DEGREE AND PRINCIPAL CERTIFICATION PREPARATION

This program is designed for teachers interested in completing a master's degree and principal certification preparation program. The Baylor program incorporates the latest theory and techniques concerning the preparation of educational leaders.

The purpose of the program is to develop K-12 educational leaders who produce superior student performance. Program objectives are: (1) to develop the necessary professional knowledge base in candidates, (2) to develop the necessary skills and dispositions in candidates, (3) to instill in candidates appropriate ethics and values that are essential in educational leaders, and (4) to offer a master's degree leading to Texas school principal certification. Principal certification can only be granted by the Texas State Board of Education Certification.

The Master's Degree program is a 36 semester-hour program designed to accomplish the following purposes: (1) creation of a focused mission to improve student achievement, (2) articulation of high expectations for all students, (3) identification and implementation of innovative instructional techniques that increase student achievement, (4) creation of a nurturing school environment where every student is valued and is supported by teacher and parents, (5) use of instructional practices based on current data about student learning, (6) development and implementation of teacher-parent partnerships, (7) emphasis on the leadership skills necessary to manage change effectively, (8) emphasis on the importance of time management skills, (9) acquisition and effective use of resources, (10) importance of networking, and (11) the necessity for life-long learning.

Key elements of the Master's Degree Program include:

- a cohort arrangement with small classes
- an emphasis on field-based and problem-based learning
- program completion in one and one-half (1 ½) years
- convenient class scheduling

To be considered for the program, candidates must have a minimum of two years teaching experience and satisfy all pertinent Graduate School and department admissions criteria. Candidates with exemplary records of classroom teaching and instructional leadership will be given preferential consideration.

The Baylor University Principal Certification Program exemplifies the university's historic commitment to Pro Texana. For a variety of reasons, the State of Texas has a critical and on-going need for competent, ethical, moral, and value-centered public school leaders from all racial and ethnic backgrounds. Because of its mission and heritage, Baylor University is uniquely and strategically positioned to assist the state in meeting that need.

*Due to changes in the state's requirements for principal certification, the Master's Degree with principal certification is currently under revision. For information about this program, please contact Dr. Robert Cloud (Robert_Cloud@baylor.edu), Dr. John Wilson (John_E_Wilson@baylor.edu), or Dr. Krys Goree (Krystal_Goree@baylor.edu).

MASTER OF SCIENCE IN EDUCATION SPORT MANAGEMENT (SPM)

This graduate program trains professionals for service in all sectors of the sports enterprise by teaching specific management skills with unique sport applications in the areas of finance, personnel management, legal issues, marketing, public relations and facility or event management. The program curriculum and faculty seek to combine current research in this field with practical professional setting applications with an emphasis upon sport in the interscholastic and intercollegiate setting.

Tracing back a strong history and tradition to a founding in 1985, the Baylor Sport Management Graduate Program boasts a strong alumni base and network, and a curriculum that is focused upon ethical decision making. This 36 credit hour, master's degree program provides an on-campus delivery model with small classes taught by leading scholars and professional practitioners. All students are trained to engage in research and creative inquiry within the sport setting, with active participation in national and international level conferences by students highly encouraged. This program culminates with six credit hours of field work through supervised work experience via internships or practica or through supervised research experience via completion of a thesis.

Program Application

Application to the program is made online through the Baylor Graduate School, and includes: 1) completion of the application forms and submission of any required application fees; 2) the submission of official transcripts from all undergraduate institutions with a benchmark GPA of 3.0 or above on a 4 point scale; 3) the submission of official GRE or GMAT results with a benchmark score of the 50th percentile or above on the verbal and quantitative areas; 4) three letters of recommendation from academic or professional sources; 5) a personal written statement indicating the rationale for pursuing the degree; and 6) a resume summarizing educational, professional and service experience.

Admission decisions are made on a rolling basis, with application materials reviewed in a holistic manner by the admissions committee. While the majority of students begin the program in the fall term, admission for the spring or summer terms is possible. Applications for the fall term should be submitted prior to March 1, spring term applications should be made by October 1, and summer applications by January 1.

A limited number of graduate assistantships is available that can provide tuition remission and stipend support within this program. The application for these graduate assistantships within the program and/or partnering agencies can be obtained online from the program website.

COMPREHENSIVE EXAMINATIONS

A written comprehensive examination has been established as an evaluation measure for all degree seeking students in the program for both internal assessment and for reporting to external agencies. This examination is completed typically either during the final semester of fieldwork after the completion of the non-field work program of study, or during the final semester of academic coursework prior to the completion of field work portion of the curriculum. The examination includes content from the Research and Ethics Core courses and from the general core courses. Students not passing their initial attempt of the comprehensive examination will be eligible to participate a second time in during a subsequent semester, but may not move on to complete (defend) a thesis or culminating field work until after the comprehensive examination is passed. Before retaking the comprehensive examination, students should consult with their program advisor, who may require the completion of additional coursework or other additional study. Students who fail the comprehensive examination the second time will be dropped from candidacy for the degree.

Sport Management

Courses Include:

Research and Ethics Core			9 credit hours
EDP	5335	Research in Education	
EDP	5334	Statistical Methods or	
STAT	5300	Statistical Methods	
SPM	5398	Contemporary Ethical Issues in Sport	
Field Experience Core			6 credit hours
SPM	5V90	Internship in Sport Management or	
SPM	5V94	Practicum in Sport Management or	
EDL	5V99	Thesis	
General Core (select from the following)			21 credit hours
SPM	5327	Financial Management in Sport	
SPM	5328	Athletic Fundraising and Development	
SPM	5336	Sport Marketing	
SPM	5338	Public Relations in Sport	
SPM	5341	NCAA Policies and Procedures	
SPM	5372	Legal Issues in Sport	
SPM	5373	Sport Management	
SPM	5374	Sport in the Social Context	
SPM	5375	Governance in Sport	
SPM	5376	Facility and Event Management	
HP	5370	Sport Psychology	
HP	5377	Issues and Trends in HHPR	
Total			**36 sem. hrs.**

DOCTOR OF EDUCATION
K-12 EDUCATIONAL LEADERSHIP

The Doctor of Education (Ed.D.) Degree in K-12 Educational Leadership is a cohort-based practitioner-oriented doctoral program that builds upon Baylor's historic mission to educate men and women for worldwide leadership and service. Designed for the dedicated working education professional, the program prepares highly qualified practitioners in cohort settings to lead K-12 education institutions, while refining skills for executive positions in public, Christian, and private educational systems or agencies. The curriculum provides current and future educational leaders with authentic learning experiences, appropriate advanced knowledge and skills, opportunities for reflection and progressive mentoring to enable success in challenging leadership K-12 educational leadership positions. In particular, the program's design focuses on preparing educational leaders to (a) lead change through confronting complex organizational problems, (b) systemically identify and propose high-potential solutions, and (c) organize appropriate actions to achieve such solutions. Academic rigor and practical clinical experiences are balanced with challenging courses to address contextual problems of practice. Support for students is based on competent mentorship, camaraderie and collegial relationships.

The program integrates coursework and clinical practice addressing organizational structure, best practices, and data informed decision-making in educational settings. Specific learning outcomes are integrated throughout the curriculum and clinical experiences. A total of 65 credit hours of graduate work above the Master's Degree are required for the degree. The degree plan may exceed 65 hours if students choose to complete additional courses, or undertake optional 12 credit hour program specialties/ cognates (e.g. curriculum and instruction or educational psychology).

Admission

Admission to the Ed.D. Degree program in K-12 Educational Leadership is selective, based upon student vocational aspirations and a variety of backgrounds, skill sets/aptitudes, and dispositional factors that project potential for successful completion of the program and subsequent success as a transformational K-12 leader. Applicants are sought who are already addressing educational/professional issues or who are motivated to gain the skills and knowledge required to address the complex issues and problems confronting leaders. Therefore, candidates with leadership experience and the demonstrated motivation to serve and lead will receive priority consideration for admission.

All applicants must submit a letter of application, certified university transcripts documenting all degrees conferred, three targeted professional reference letters, current professional resume, and other evidentiary documents. Finally, upon receipt of the above documentation, selected qualified applicants will be invited to participate in two activities at the University: (1) a structured interview with an admissions committee (composed of faculty and practitioners) and (2) the controlled-situation production of a professional writing sample of 1000-1500 words.

Degree Plan

Program component coursework and related experiences involve:

Block I: Educational Leadership-Management Core (33 hours)

Students will engage in studies of advanced educational law; politics, policy and governance; school finance; trends in educational leadership; advanced studies for school executives; curriculum management and evaluation; conflict management and resolution; visioning, planning, and acquisitions of 21st century school facilities; ethics and values in educational leadership; and state, national, and international education systems.

Block II: Disciplined Inquiry (12 hours)

Learning to carefully frame complex problems facing school leadership, be savvy consumers of research in support of problem analyses and data informed decision-making, and use data visualization strategies that help clarify and persuasively pose high-potential solutions is the essence of student experiences for disciplined inquiry.

Block III: Persuasive Communications (3 hours)

Competences in effective oral and written persuasive communications are necessary skills for successful leaders.

Block IV: Clinical Experience (11 hours)

Students will have structured program-keyed clinical experiences learning to frame and address complex problems in educational settings that include working 1-1 with prominent educational leaders as mentors across much of the program. This clinical experience will generally serve as a basis for the dissertation.

Block V: Dissertation (6 hours)

Candidates complete a capstone experience/dissertation-in-practice documenting their efforts to address real-life complex problems of practice, analyze values, persuasively present data-based solution options to a superintendent of schools and policy body/board or agency head, and develop a plan for appropriate implementation.

Total Number of Hours in the Program: 65 hours (48 hours of coursework + 11 hours of clinical experience + 6 hours of dissertation). The degree plan may be modified during advisement on an individual basis to meet each student's needs.

DOCTOR OF PHILOSOPHY
HIGHER EDUCATION STUDIES & LEADERSHIP

The Doctor of Philosophy in Higher Education Studies & Leadership educates scholars and scholar-practitioners who desire to have meaningful, lasting influence on higher education. The program is uniquely balanced between research, academic rigor, and hands-on professional experience. Students entering the program can expect to be professionally challenged through their apprenticeships and academically challenged throughout the course sequence. The program is small and built on the idea that a great doctoral education stems from great mentorship. The program provides support, camaraderie, and debate as students come together from across the nation, representing a great diversity of regional and cultural world views.

Higher Education is a sophisticated enterprise, and the future scholars and leaders of higher education must be able to integrate research methodologies, complex critical thinking, and administrative responsibilities to foster meaningful change. Therefore, the Ph.D. in Higher Education Studies & Leadership has extensive learning outcomes woven throughout the curriculum. The degree requires 72 semester hours of graduate work arranged in eight blocks of courses. The degree plan may exceed 72 hours if students choose to complete additional courses.

Admission

Admission to the Ph.D. program in Higher Education Studies & Leadership is selective. Admission is based upon student vocational goals as well as a variety of background, skill sets/aptitudes, and dispositional factors that indicate potential success in the program. A hallmark of this program is the integration of Christian faith and learning, and students are expected to model this outcome.

All applicants must submit scores from the General Test of the GRE taken within the last five years, official transcripts of baccalaureate and master's degrees from regionally accredited institutions, a curriculum vita/resume, a professional goals statement, three letters of recommendation, and a writing sample.

Degree Plan

Block I: Higher Education Core (15 hours)

- EDL 5379 Foundations and History of Higher Education Leadership
- EDL 5374 Moral and Faith Development in College Students or
- EDL 6305 Ethics and Values in Educational Leadership
- EDL 6302 Teaching and Learning in Higher Education
- EDC 6345 Christian Faith and Education
- EDL 5375 Sociology of Higher Education

Block II: Studies and Leadership in Higher Education (18 hours)

- EDL 5372 Culture and Organization of Higher Education
- EDL 5392 Higher Education and the Law
- EDL 6304 Seminar: Politics, Policy and Governance of Education
- EDL 6385 Higher Education - Business and Finance
- EDL 6363 Advanced Studies in Educational Leadership
- EDL 6306 Student Success in Higher Education

Block III: Research and Statistics (15 hours)

- EDL 5300 Research Applications in Research Leadership (required only for students who have not already taken a similar course)
- EDP 5334 Statistical Methods (if the student has already taken a master's level statistics course, they will be required to take either EDP 6360

Experimental Design I or EDP 6362 Applied Multiple Regression/ Correlation Analysis in Education).

- EDL 5336 Qualitative Research in Higher Education (required)
- EDL 6335 Research Practicum in Higher Education (required)

In addition to the above required R&S courses, students will choose 3 to 6 hours (depending on whether the student needs to take EDP 5335) from the following (in consultation with his or her advisor). The courses chosen should assist with the publication of the dissertation. In addition, students can use their cognate or elective hours to take additional research courses.

- EDP 5340 Measurement and Evaluation
- EDP 6360 Experimental Design I
- EDP 6361 Experimental Design II
- EDP 6362 Applied Multiple Regression/Correlation Analysis in Education
- EDC 6337 Psychometric Theory and Test Construction
- EDL 6339 Ethnographic Research
- EDL 6370 Case Study Research

Block IV: Electives or Independent Studies (6 hours)

Students may take six hours of their choice from within the department or across the university. We particularly encourage taking courses outside the School of Education that may expose students to other fields within the university. For instance, students may wish to take additional courses in management from the business school, particular methods courses from a particular discipline (e.g. history or sociology), or courses about education found in other disciplines (e.g., sociology of education, philosophy of education).

Block V: Cognate or Independent Studies: (6 hours)

Students will choose to take six hours from a cognate area within the department or from courses within another department (e.g., Educational Psychology or Curriculum and Instruction) or another school (e.g., Arts and Sciences, Business).

Block VI: Professional Seminar and Internship (3 hours)

- EDL 6V64 Internship in Educational Leadership or
- EDL 5V95 Special Problems in Education or
- EDL 6V95 Special Problems in Educational Leadership

Block VII: Comprehensive Exam (0 hours)

Block VIII: Dissertation (9 hours)

- EDL 6V99 Dissertation

Total Number of Hours in the Program: 72 hours (63 hours of course work + 9 dissertation hours). The degree plan may be modified during advisement on an individual basis to meet each student's needs.

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

Chairperson: Grant B. Morgan

The Department of Educational Psychology offers graduate courses leading to:

I. **Master of Science in Education (M.S.Ed.)**
A minimum of thirty-six semester hours of graduate work, twenty-one of which must be in Educational Psychology, and eighteen of which must be 5000 level or above. A specialization in gifted and talented, is available with this degree. More information regarding course requirements are included in the program description.

II. **Master of Science in Education (M.S.Ed.) with Concentration in Applied Behavior Analysis**
A minimum of thirty-six hours of graduate work, eighteen of which include coursework in applied behavior analysis. All coursework must be 5000 level or above.

III. **Master of Arts (M.A.)**
Thirty semester hours of graduate courses including three hours of thesis and completion

of a satisfactory defense. A quantitative specialization is available with this degree. Other requirements must be met as specified for all other master's degrees.

IV. **Master of Arts (M.A.) with Concentration in Applied Behavior Analysis**
A minimum of thirty hours of graduate work, including three hours of thesis and completion of a satisfactory defense. This program includes eighteen hours of coursework in applied behavior analysis. All coursework must be 5000 level or above.

V. **Education Specialist (Ed.S.)**
The Education Specialist degree requires a minimum of sixty graduate hours and prepares students for practice as a Licensed Specialist in School Psychology (L.S.S.P.). More information regarding admission and other course requirements are included in the degree program description.

VI. **Doctor of Philosophy (Ph.D.)**
The Doctor of Philosophy degree requires a minimum of sixty-five graduate hours. Students take 41 hours in core courses and 24 hours in one or more specialization areas: assessment, applied behavior analysis, gifted and talented, learning and development, quantitative methods, or multidisciplinary. More information regarding admission and other course requirements are included in the program description.

VII. **Graduate Minor in Educational Psychology**
The graduate minor in educational psychology focuses on Research Methods and Data Analysis. It is available for students enrolled in any master's or doctoral program. Students must complete twelve semester hours of graduate courses (including any prerequisite courses), which must include EDP 6360 and EDP 6362. Two additional courses are selected with the approval of the Graduate Program Director in the Department of Educational Psychology.

Please note the following important information regarding application for admission:

1. Contact the Graduate School to begin the application process.
2. All aspects of the application must be completed by the deadline. If everything is not submitted, the application file is not complete and will not be considered.
3. Applicants submitting their materials by the admission deadline may be contacted for an interview. Following the interview, applications will be considered and applicants will be notified of the results.
4. Prospective students who wish to begin in summer or fall are encouraged to apply by February 1 to increase their chances of obtaining scholarships or an assistantship; students who wish to begin a program in the spring are encouraged to complete an application by Oct. 1.

PROGRAMS IN EDUCATIONAL PSYCHOLOGY

Master of Science in Education (M.S.Ed.)

Director: Janet Bagby

The department offers both terminal and non-terminal M.S.Ed. and M.A. degrees in educational psychology.

Terminal M.S.Ed. in Educational Psychology

The terminal Master of Science in Educational Psychology is designed for students who are interested in individual differences. It is particularly suited for those students who will work with children or adults in educational settings. Students who complete this program will be able to describe (a) the foundations of educational psychology, (b) individual differences in learning and development, (c) research methodologies in education, (d) issues and trends in educational psychology, and (e) relationships between measurement, exceptionalities, and multicultural issues.

Twenty-one of the required 36 hours consist of a core curriculum in educational psychology that includes one course in each of the following areas: learning (EDP 5333), development (EDP 5332), measurement (EDP 5340), exceptionalities (EDP 5366), cultural issues (EDP 5393), research (EDP 5335), and one additional EDP 5000-level course of the student's choosing. The remaining hours may include graduate level courses from specializations, gifted and talented, applied behavior analysis, or courses that match student interests and career goals.

Terminal M.S.Ed. in Educational Psychology with a Concentration in Applied Behavior Analysis

The terminal Master of Science in Educational Psychology with a concentration in Applied Behavior Analysis is designed for students who are interested in the application of behavior analysis with children and adults with intellectual and developmental disabilities. Students who complete this program will be able to (a) describe the principles and concepts of applied behavior analysis, (b) implement behavioral assessments and interventions, (c) experimentally evaluate behavioral interventions, and (d) describe and abide by ethical expectations of the profession.

Eighteen of the required 36 hours consist of the following applied behavior analysis courses: EDP 5358, Teaching Individuals with Autism and Developmental Disabilities; EDP 5356, Psychological Interventions with Children and Adolescents I: Behavior; EDP 5346, Therapeutic Intervention; EDP 5357 Single Subject Research Design; EDP 5361 Challenging Behavior and Developmental Disabilities; and EDP 5V95, Special Problems in Education. Twelve of the required 36 hours consist of the following general educational psychology courses: EDP 5333 Psychology of Learning; EDP 5332, Human Growth and Development; EDP 5393, Cultural Issues with Children and Families; and EDP 5335, Research in Education. The remaining six hours may include graduate level courses from offered in the department that match the student's interests and career goals.

Recommended Sequence of Coursework

Summer Semester

EDP	5358	Teaching Individuals with Developmental Disabilities
EDP	5356	Psychological Interventions with Children and Adolescents I: Behavior Management

Fall Semester

EDP	5335	Research in Education
EDP	5346	Therapeutic Intervention
EDP	5332	Human Growth and Development
EDP	5298	Practicum in Behavior Analysis
EDP	5V95	Special Problems in Education (1 credit hour)

Spring Semester

EDP	5333	Psychology of Learning
EDP	5357	Single-Subject Research Design
EDP	5298	Practicum in Behavior Analysis
EDP	5V95	Special Problems in Education (1 credit hour)

Summer Semester

EDP	5393	Cultural Issues with Children and Families
EDP	5361	Challenging Behaviors in Developmental Disabilities
EDP	5298	Practicum in Behavior Analysis
EDP	5V95	Special Problems in Education (1 credit hour)

Non-Terminal M.S.Ed. in Educational Psychology

Students admitted to the Ph.D. program are encouraged to earn, with the approval of the faculty, a non-terminal M.S.Ed. degree. The non-terminal M.S.Ed. option is available only to students who are initially admitted to the Ph.D. degree program. Students may earn a non-terminal M.S.Ed. degree in educational psychology by:

- Completing 36 hours of core and specialization courses, and
- Successfully completing a written comprehensive exam

M.S.Ed. requirements are usually completed by the second or third year of study.

Terminal Master of Arts in Educational Psychology (M.A.)

The Master of Arts in Educational Psychology requires thirty semester hours of graduate course work including three hours of thesis. The student must present a satisfactory defense of the thesis. Other requirements must be met as specified for all other master's degrees.

Terminal M.A. in Educational Psychology with a Concentration in Applied Behavior Analysis

The terminal Master of Arts in Educational Psychology with a concentration in Applied Behavior Analysis is designed for students who are interested in the research and practice of behavior analysis with children and adults with intellectual and developmental disabilities. Students who complete

this program will be able to (a) describe the principles and concepts of applied behavior analysis, (b) implement behavioral assessments and interventions, (c) experimentally evaluate behavioral interventions, and (d) describe and abide by ethical expectations of the profession.

The M.A. in Educational Psychology with a concentration in Applied Behavior Analysis requires thirty semester hours of graduate work, including three hours of thesis. The student must present a satisfactory defense of the thesis. Eighteen of the required 30 hours consist of the following applied behavior analysis courses: EDP 5358, Teaching Individuals with Autism and Developmental Disabilities; EDP 5356, Psychological Interventions with Children and Adolescents I: Behavior; EDP 5346, Therapeutic Intervention; EDP 5357 Single Subject Research Design; EDP 5361 Challenging Behavior and Developmental Disabilities; and EDP 5V95, Special Problems in Education. Three of the required 30 hours consist of a general educational psychology course: EDP 5335, Research in Education. Three of the required 30 hours must consist of thesis coursework. The remaining six hours may include graduate level courses offered in the department that match the student's interests and career goals.

Recommended Sequence of Coursework

Summer Semester

EDP	5358	Teaching Individuals with Developmental Disabilities
EDP	5356	Psychological Interventions with Children and Adolescents I: Behavior Management

Fall Semester

EDP	5335	Research in Education
EDP	5346	Therapeutic Intervention
EDP	5298	Practicum in Behavior Analysis
EDP	5V95	Special Problems in Education (1 credit hour)
EDP	5V99	Thesis (1 credit hour)

Spring Semester

EDP	5357	Single-Subject Research Design
EDP	5298	Practicum in Behavior Analysis
EDP	5V95	Special Problems in Education (1 credit hour)
EDP	5V99	Thesis (1 credit hour)

Summer Semester

EDP	5361	Challenging Behaviors in Developmental Disabilities
EDP	5298	Practicum in Behavior Analysis
EDP	5V95	Special Problems in Education (1 credit hour)
EDP	5V99	Thesis (1 credit hour)

Non-terminal M.A. in Educational Psychology with Concentration in Applied Behavior Analysis

Students admitted to the Ph.D. program with an interest in applied behavior analysis are encouraged to earn, with the approval of the faculty, a non-terminal M.A. in Educational Psychology with a concentration in Applied Behavior Analysis. The non-terminal M.A. option is available only to students who are initially admitted to the Ph.D. program.

Students may earn a non-terminal M.A. in Educational Psychology with a concentration in Applied Behavior Analysis by completing thirty semester hours of graduate work. Eighteen of the required 30 hours consist of the following applied behavior analysis courses: EDP 5358, Teaching Individuals with Autism and Developmental Disabilities; EDP 5356, Psychological Interventions with Children and Adolescents I: Behavior; EDP 5346, Therapeutic Intervention; EDP 5357 Single Subject Research Design; EDP 5361 Challenging Behavior and Developmental Disabilities; and EDP 5V95, Special Problems in Education. Three of the required 30 hours consist of a general educational psychology course: EDP 5335, Research in Education. Three of the required 30 hours must consist of thesis coursework. The remaining six hours may include graduate level courses offered in the department that match the student's interests and career goals.

Education Specialist (Ed.S.) in School Psychology

Director: Eric L. Robinson

The Educational Specialist (Ed.S.) degree program is designed for individuals who are interested in practicing psychology in school-based settings. The program consists of two full years of graduate study followed by a third year of internship. The program is fully approved by the National Association of School Psychologists (NASP) and is designed to comply with the Licensed Specialist in School Psychology standards set by the Texas States Board of Examiners of Psychologists. The Ed.S. degree program policies and operating procedures are detailed in a handbook that is provided to each student upon enrollment. This program does not require a foreign language. For more information about the doctoral specialization in school psychology, see the Doctor of Philosophy in Educational Psychology section.

Recommended Sequence of Coursework

FIRST YEAR

Fall Semester

EDP	5340	Measurement and Evaluation
EDP	5328	Psychological Assessment of Children and Adolescents I: Cognitive
EDP	5341	Professional Practice and Ethics for School Psychologists
EDP	5366	Psychology of Exceptional Children
EDP	5V78	Practicum in School Psychology (2 hours)

Spring Semester

EDP	5367	Developmental Psychopathology
EDP	5337	Psychological Assessment of Children and Adolescents II: Psychoeducational
EDP	5360	Psychological Interventions with Children and Adolescents II: Counseling
EDP	5333	Psychology of Learning
EDP	5V78	Practicum in School Psychology (1 hour)

Summer Semester

EDP	5358	Teaching Individuals with Autism and Developmental Disabilities
EDP	5393	Cultural Issues with Children and Families
EDP	5356	Pyschological Interventions with Children and Adolescents I: Behavior

SECOND YEAR

Fall Semester

EDP	5V78	Practicum in School Psychology (2 hours)
EDP	5362	Psychological Assessment of Children and Adolescents III: Academic
EDP	5394	Psychological Assessment of Children and Adolescents III: Social Emotional
PSY	5323	Biological Foundations of Behavior

Spring Semester

EDP	5370	Consultation and Parent Conferences
EDP	5V78	Practicum in School Psychology (2 hours)
EDP	5357	Single-Subject Research Design

Summer Semester

EDL	5345	Fundamentals of School Administration

THIRD YEAR

Fall Semester

EDP	5182	Specialist Internship in School Psychology

Spring Semester

EDP	5182	Specialist Internship in School Psychology

*Elective course must be approved by advisor.

Comprehensive Examination

Candidates for the Ed.S. degree are required to take the Praxis Series® School Psychologist

examination and earn a passing score, which is determined by the Texas State Board of Examiners of Psychologists. Additional information about the examination is provided in the school psychology student handbook.

The Ed.S. degree program accepts applicants for the fall semester only. Prospective students should have their completed application to the Baylor Graduate School by February 1. Admission decisions are made by consensus of the School Psychology faculty based on multiple factors including: (a) GRE scores (less than 5 years old); (b) letters of recommendation; (c) potential match between the applicant's goals and program objectives; (d) relevant work or clinical experience; and (e) undergraduate courses and grades. The Test of English as a Foreign Language (TOEFL) is required for applicants whose native language is not English. Additional information about the Ed.S. degree program in school psychology is on the Internet at: www.baylor.edu/soe/edp/schoolpsychology.

DOCTOR OF PHILOSOPHY IN EDUCATIONAL PSYCHOLOGY

Director: Grant B. Morgan

The Doctor of Philosophy degree has specializations in applied behavior analysis, gifted and talented, school psychology, learning and development, quantitative methods, and multidisciplinary studies, allowing students to select courses based on their interests and future goals. The program focuses on developing reflective teachers of adult learners and competent researchers who will generate new information in their fields of study. The goals of this program are to (a) develop researchers with a balance between disciplinary and multidisciplinary perspectives; (b) improve the quality of instruction and research in higher education institutions; (c) develop teachers who are scholars and encourage inquiry-based learning and creative production; and (d) develop researchers in exceptionalities, learning and development, school psychology, and/or quantitative methods. Graduates from this program may expect to be hired as professors in departments of educational psychology and related disciplines; teachers in medical schools, church-related institutions, and community colleges; directors of development and research centers; coordinators of field-based and adult-based education programs; evaluators for public or private schools; and research and development in business, government, and other agencies. The majority of all course work toward the completion of the Ph.D. must be taken at Baylor. The number of credits to be transferred will be determined by the faculty in the department upon petition approval by the Graduate School.

Admission to Doctoral Program

Admission to the Graduate School of Baylor University and the Ph.D. program in Educational Psychology is conducted by formal application. Students must be admitted to the Ph.D. program.

This program admits a very select number of students with strong academic credentials who are interested in working with faculty in research and development projects. Admission to the doctoral program takes into consideration the following critical factors deemed important for success in graduate studies:

1. A bachelor's degree from an accredited institution.
2. A completed Graduate School application form.
3. Transcripts from all higher education institutions attended.
4. A written statement outlining the goals the applicant hopes to accomplish by completing the degree.
5. Scores on the Graduate Record Examination General Test that are predictive of success in this program. International students are expected to secure a minimum of 550 (PBT) or 80 (iBT) on the Test of English as a Foreign Language (TOEFL).
6. A minimum overall GPA of 3.0 in the major field of undergraduate study or an overall GPA of 3.5 at the master's level.
7. Three letters of recommendation.

Once these preliminary admission requirements are met, the applicant will be asked to submit a writing sample and a professional resume. Upon review of all of the information, the Graduate faculty teaching in the Ph.D. program may require a personal interview. This interview will be of sufficient length to allow the applicant as well as the faculty to make an informed decision.

In addition to the listed criteria, the committee may consider the applicant's related work and academic experience, publications, presentations to professional organizations, leadership roles, teaching excellence, awards, career focus, and other professional activities that might provide evidence of potential success in a doctoral program.

Students seeking graduate assistantships must apply by February 1 for summer and fall semesters. All other applications must be completed by August 1 for fall semester, December 1 for spring semester, and May 1 for summer semester. For more information, contact Dr. Grant Morgan. Telephone 254-710-7231; e-mail Grant_Morgan@baylor.edu.

Required Core Courses (41 hours)

General/Applied (8 hours)

EDP	6154	Introduction to Multidisciplinary Studies
EDP	6155	Reflection of Multidisciplinary Studies
EDP	6338	Grant Writing
EDP	6340	Practicum in Adult Learning: Campus-Based

Foundations/Research (18 hours + Dissertation)

EDP	6350	History and Systems in Educational Psychology
EDP	5333	Psychology of Learning
EDP	5332	Human Growth and Development
EDP	6353	Creativity and Problem Solving
EDP	5393	Cultural Issues with Children and Families
EDP	6335	Research Practicum in Education
EDP	6V99	Dissertation (9 hours)

Statistics/Measurement (15 hours)

EDP	5340	Measurement and Evaluation
EDP	6337	Psychometric Theory and Test Construction
EDP	6360	Experimental Design I
EDP	6362	Applied Multiple Regression/Correlation Analysis in Education
EDP	6336	Qualitative Research and Data Analysis or
EDP	6366	Item Response Theory or
EDP	6365	Latent Variable Models in Education or
EDP	5357	Single-Subject Research Design

Strand Courses (24 hours)

Strand 1. Applied Behavior Analysis

EDP	5358	Teaching Individuals with Autism and Developmental Disabilities
EDP	5356	Psychological Interventions with Children and Adolescents I: Behavior Management
EDP	5346	Therapeutic Intervention
EDP	5361	Challenging Behavior in Developmental Disabilities
EDP	5V95	Ethics in Educational Psychology (1 hour)
EDP	5V95	Ethics in ABA Part 1 (1 hour)
EDP	5V95	Ethics in ABA Part 2 (1 hour)
EDP	5V98	Practicum in Applied Behavior Analysis
EDP	6355	Advanced Concepts in Applied Behavior Analysis
EDP	6354	Advanced Single Case Research
EDP	6385	Internship in Applied Behavior Analysis

Strand 2. Gifted and Talented

EDP	4350	Introduction to the Gifted Child
EDP	5351	Social and Emotional Needs of the Gifted
EDC	5310	Principles and Strategies for Effective Discipline and Classroom Management
EDC	5311	Introduction to Qualitative and Quantitative Research
EDC	5V54	Practicum for Teaching Gifted

Strand 3. School Psychology**

EDP	5328	Psychological Assessment of Children and Adolescents I: Cognitive

EDP	5337	Psychological Assessment of Children and Adolescents II: Psychoeducational
EDP	5341	Professional Issues and Ethics for School Psychologists
EDP	5356	Psychological Interventions with Children and Adolescents I: Behavior
EDP	5360	Psychological Interventions with Children and Adolescents I: Counseling
EDP	5362	Psychological Interventions with Children and Adolescents I: Academic
EDP	5366	Psychology of the Exceptional Child
EDP	5367	Developmental Psychopathology
EDP	5370	Consultation and Parent Conferencing
EDP	5394	Psychological Assessment of Children and Adolescents III: Socio-Emotional
PSY	5323	Biological Foundations of Behavior
EDA	5345	Fundamentals of School Administration

Research Design Elective

*Suggested courses and course sequences are provided in the school psychology student handbook.

**Students admitted without any previous graduate training in school psychology (or related field) are required to take a minimum of 52 hours of specialization course work. Students admitted with previous graduate training in school psychology (or related field), are required to take a minimum of 24 hours of specialization course work, including at least 4 hours of EDP 5V78 and 2 hours of EDP 6182.

Strand 4. Learning and Development

EDP	6345	Adult Learner—Advanced
EDP	6330	Seminar: Educational Psychology (rotating)
PSY	5311	Seminar in Memory and Cognition
PSY	5323	Biological Foundations of Behavior
EDP	6332	Advanced Human Growth and Development
EDP	6333	Advanced Study of Human Learning

Strand 5. Quantitative Methods

EDP	5357	Single-Subject Design
EDP	6367	Individual Differences
EDP	6366	Item Response Theory
EDP	6365	Latent Variable Models in Education
ECO	5V98	Causal Inference and Research Design
ECO	5347	Econometrics
PUBH	5337	Health Concepts in Epidemiology
MIS	6325	Quantitative Methods: Survey Research Using PLS Analysis
PSY	5305	Advanced Experimental Design
SOC	6307	Statistical Methods for Survey Research
SOC	6314	Advanced Quantitative Analysis
SOC	6318	Sampling Techniques
STA	4385	Mathematical Statistics I
STA	5384	Multivariate Statistical Methods
STA	4386	Mathematical Statistics II
STA	6360	Bayesian Methods
STA	6375	Computational Statistics
STA	6384	Analysis of Categorical Responses

*Students may choose a minimum of 24 hours within or across strands, which may include 12 hours of electives that match the student's interests. Students should consult with the catalog and individual departments with regard to any prerequisites.

SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

The School comprises three departments, which offer five masters and three doctoral degrees. The Department of Computer Science offers a Master of Science in Computer Science and a Doctor of Philosopy. The Department of Electrical and Computer Engineering offers a Master of Science in Electrical and Computer Engineering and a Doctor of Philosophy. The Department of Mechanical Engineering offers a Master of Science in Mechanical Engineering and a Doctor of Philosophy. The School of Engineering and Computer Science also offers additional graduate engineering degrees, which are described below in the Interdisciplinary Degrees section and are administered jointly between the engineering departments. These degrees include a Master of Science in Biomedical Engineering, a Master of Engineering, joint undergraduate/graduate degrees, and a joint Master of Business Administration/Master of Engineering.

DEPARTMENT OF COMPUTER SCIENCE

Chairperson: Erich J. Baker
Graduate Program Director: Eunjee Song

MASTER OF SCIENCE

The GRE General Test is required. A bachelor's degree equivalent to the B.S. in computer science at Baylor or the B.A. in computer science at Baylor with calculus II and linear algebra is the standard requirement for admission. For those applying with less than the standard preparation, the quality and adequacy of the admissions record will be evaluated by the Graduate Affairs Committee of the Department of Computer Science after reviewing the application for admission. Requirements which must be met before admission will be determined by that committee. These requirements will be in addition to requirements for the M.S. degree.

At least fifteen semester hours are required at the 5000 level excluding 5V92, 5V96, and 5V99. All work presented to meet the requirements for this degree must be approved by the student's Advisory Committee or thesis Committee.

The Graduate Committee will appoint a graduate Advisory Committee for each student to monitor the progress of the student. The Master of Science program in computer science has two options, a thesis option and a project option.

Thesis Option

The thesis option is designed for students who are interested in eventually obtaining a Ph.D. in computer science or for well-qualified students who wish to complete a master's degree in the shortest time possible.

Required Courses		**6 sem. hrs.**
CSI	5010	Graduate Seminar (2 semesters)
CSI	5V92	Master's Research (3 hours)
CSI	5V99	Thesis (3 hours)

Area Courses **21 sem. hrs.**

Area course requirements are designed to provide students with sufficient breadth of knowledge for a Master of Science degree. It is expected for students to take courses of interest for their research as part of this requirement.

Students must take at least two theory courses, one software engineering course, two system courses and two application courses. A student may petition for a course taught for graduate credit within the Computer Science department but not listed to count as a course towards a specific area requirement. One course may not be counted towards more than one area.

Theory courses:

CSI	4336	Introduction to Computation Theory
CSI	5350	Advanced Algorithms

Software Engineering courses:

CSI	5324	Software Engineering
CSI	5342	Software Specification and Design

Systems courses:

CSI	5321	Advanced Data Communications
CSI	5335	Advanced Database
CSI	5337	Advanced Operating Systems
CSI	5338	Advanced Computer Organization
CSI	5345	Parallel Systems
CSI	5346	Design Automation

Application courses:

CSI	4341	Computer Graphics
CSI	4352	Introduction to Data Mining
CSI	5325	Introduction to Machine Learning
CSI	5330	Advanced Computational Biology
CSI	5360	Information Retrieval and Natural Language Processing
CSI	5388	Advanced Topics in Human-Computer Interaction

Electives **9 sem. hrs.**

A student's undergraduate preparation will normally include courses in Data Communications and Operating Systems. For students without prior course work in these areas, one of the following two courses may be taken for graduate credit, but only one of these courses may count toward the master's degree requirements.

CSI	4321	Data Communications
CSI	4337	Introduction to Operating Systems

With the approval of the advisory committee, the student may take one 5000-level course from outside the department. No more than one course from outside the department may count toward the master's degree requirements.

Except as mentioned above, any CSI course that is offered for graduate credit may be taken as an elective. A total of 9 semester hours of electives are required.

Total **36 sem. hrs.**

Project Option

The project option is designed for students interested in a terminal master's degree. It is also appropriate for students who continue to work while obtaining the degree. This option is designed for a fall entry. The program is intended to be completed in two years by a full-time student, but it is structured so that additional time may be taken to complete the degree.

Required Courses **6 sem. hrs.**

CSI	5010	Graduate Seminar (2 semesters)
CSI	5V92	Master's Research (3 hours)
CSI	5V96	Project (3 hours)

Area Courses **21 sem. hrs.**

Area course requirements are designed to provide students with sufficient breadth of knowledge for a Master of Science degree. It is expected for students to take courses of interest for their research as part of this requirement.

Students must take at least two theory courses, one software engineering course, two system courses and two application courses. A student may petition for a course taught for graduate credit within the Computer Science department but not listed to count as a course towards a specific area requirement. One course may not be counted towards more than one area.

Theory courses:

CSI	4336	Introduction to Computation Theory
CSI	5350	Advanced Algorithms

Software Engineering courses:

CSI	5324	Software Engineering
CSI	5342	Software Specification and Design

Systems courses:

CSI	5321	Advanced Data Communications
CSI	5335	Advanced Database
CSI	5337	Advanced Operating Systems
CSI	5338	Advanced Computer Organization
CSI	5345	Parallel Systems
CSI	5346	Design Automation

Application courses:

CSI	4341	Computer Graphics
CSI	4352	Introduction to Data Mining
CSI	5325	Introduction to Machine Learning
CSI	5330	Advanced Computational Biology
CSI	5360	Information Retrieval and Natural Language Processing
CSI	5388	Advanced Topics in Human-Computer Interaction

Electives **9 sem. hrs.**

A student's undergraduate preparation will normally include courses in Data Communications and Operating Systems. For students without prior course work in these areas, one of the following two courses may be taken for graduate credit, but only one of these courses may count toward the master's degree requirements.

CSI	4321	Data Communications
CSI	4337	Introduction to Operating Systems

With the approval of the advisory committee, the student may take one 5000-level course from outside the department. No more than one course from outside the department may count toward the master's degree requirements.

Except as mentioned above, any CSI course that is offered for graduate credit may be taken as an elective. A total of 9 semester hours of electives are required.

Total **36 sem. hrs.**

An oral examination will be required of every student in either option. There is no foreign language requirement for graduation.

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

The Doctor of Philosophy in Computer Science (Ph.D.) is intended for students who want to have careers that require in-depth research experience in areas related to theoretical or applied computer science. Successful candidates are prepared to solve significant research problems in the academy, industry, government (e.g. national laboratories), or non-profits.

Admission

All students in the Computer Science (CSI) doctoral program must have a Bachelor of Science or Master of Science degree in computer science or a closely related field. Additionally, the Graduate Record Exam (GRE) is required.

Course Requirements

The course requirements for the doctoral degree include:

- All course requirements for a Master of Science in Computer Science degree, excluding CSI 5V92, CSI 5V96, and CSI 5V99 (30 hours)
- 18 additional hours of 5000 or 6000-level course work, and
- 24 additional hours of 6000-level course work, of which at least 12 hours must be 6V99 (Dissertation).

A total of 72 hours post-Bachelor's degree are required, including dissertation hours.

A student entering the program with graduate-level work or a master's degree in computer science or a closely related field may apply up to thirty (30) semester hours of approved courses toward the Ph.D.

Qualifying Breadth Examinations

A doctoral student should demonstrate breadth of knowledge within the field. The student demonstrates breadth in two ways: taking written exams in several fundamental areas, and a qualifying project (including a written report or thesis with an oral exam).

- Written breadth exams are formulated by the graduate computer science faculty. A doctoral

student may take the written exams after completing 30 hours of graduate coursework. If a student fails to pass a written exam, they may petition to re-take the failed exam up to two more times.

- The qualifying project is directed by a faculty member. The successful student:
  - demonstrates breadth and depth outside the written exam areas (e.g. the project might be in an application area);
  - gains background by doing the project and by reading papers assigned by the committee and preparing for the oral exam;
  - works on something that may lead to dissertation research; and
  - demonstrates their ability to defend their knowledge through the written report and oral exam.

The qualifying project oral defense is given when the student is ready, which usually is at the end of their second year. A student who has already done an MS degree in CSI at Baylor (or equivalent) may, with permission of their committee, use their MS project or thesis for the Ph.D. qualifying project. However, in such a case an oral exam is still required.

The committee for the qualifying project is comprised of 3 faculty, including the project's faculty director. One of the committee members may be from outside the department.

Upon passing both the qualifying written exams and the qualifying project, the student will be allowed to begin formulating the dissertation proposal.

Student's Dissertation Committee

The Dissertation Committee for a Ph.D. candidate shall follow the guidelines given in the Dissertation Examining Committee Composition section of the Baylor Graduate Catalog.

Dissertation Proposal

A student must pass a dissertation proposal and preliminary exams before being admitted to candidacy and allowed to enroll in Dissertation Research CSI 6V99. The student is expected to write a proposal formatted as a federal funding application (e.g. to NSF or NIH) and make a presentation to the committee about the proposed research. The student will not be allowed to register for CSI 6V99 until the Graduate School has approved the Result of the Preliminary Examination form and Admission to Doctoral Candidacy form.

Dissertation

Candidates for the Ph.D. in computer science degree must complete an acceptable dissertation on a research topic in the computer science discipline or a closely related field. The dissertation must show evidence that the candidate has made a significant scholarly contribution to the field. At the completion of the dissertation research, the candidate defends the dissertation before the dissertation committee.

Foreign Language Requirement

The CSI doctoral program does not have a foreign language requirement.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Chairperson: Kwang Y. Lee

Graduate Program Director: Ian Gravagne

MASTER OF SCIENCE

The Department of Electrical and Computer Engineering offers a Master of Science in Electrical and Computer Engineering (M.S.E.C.E.). This program is designed for students who are interested in engineering careers that require education beyond the baccalaureate degree. Examples of those include engineers performing industrial research and development or students who plan to pursue a doctoral degree.

Admission and Financial Aid

Admission is based on undergraduate academic record, the Graduate Record Examination (GRE), and letters of recommendation for the candidate. Tuition waivers and stipends are available on a competitive basis.

Requirements

Semester Hours	
Course Work*	24
Thesis (ELC 5V99)	6
Total	**30**

*Courses will be selected in consultation with the student's advisor. Courses in the departments of Mechanical Engineering, Mathematics, Statistics, Physics, Chemistry, Biology, or Environmental Science may be included in this total with consent of the advisor.

Thesis Requirements

A discovery-oriented thesis is required in accordance with the criteria listed in the graduate catalog general requirements.

DOCTOR OF PHILOSOPHY

All applicants accepted into the Electrical and Computer Engineering (ECE) doctoral program must have received a Bachelor of Science or Master of Science degree in electrical or computer engineering, or closely related fields. The GRE exam is required of all applicants.

The program requirements include a minimum of sixty (60) semester hours of approved course work and research hours beyond the bachelor's degree. The sixty (60) semester hours must meet the following minimums or maximums:

1. Forty-eight (48) semester hours of course work including:

   a minimum of fifteen (15) semester hours of ECE course work,

   a maximum of six (6) hours of 4000 level ECE,

   a minimum of six (6) semester hours outside ECE (see note 1 below), and

   a minimum of fifteen (15) semester hours of course work at the 5000 level or above.

2. Twelve (12) semester hours of dissertation (ELC 6V99).

Note 1: Engineering is inherently cross-disciplinary; students may select courses from non-ECE disciplines to broaden their understanding of particular application or knowledge domains. Supportive graduate course hours outside of ECE can be selected from mechanical or biomedical engineering, computer science, mathematics, statistics, the physical sciences, the social sciences, education or business. Engineering is also a value-based discipline that benefits from Christian world view and faith perspectives; students can also select supportive courses from religion, theology or philosophy. Course selection is broadly specified to provide flexibility and to accommodate a wide-range of student interest. The selection of specific courses must be approved by the student's graduate committee.

The minimal requirements may be expanded based on the student's background, research area and recommendations from the student's graduate committee. Students entering the program with graduate-level work or a master's degree in electrical or computer engineering, or a closely related field may apply up to twenty-nine (29) semester hours of approved courses toward the Ph.D. A breakdown of the course requirements for non-ECE MS degree students is detailed as follows: a maximum of 30 semester credit hours of approved Master's level course work with at most 6 hours of 4000 level courses, a minimum of 12 semester hours of approved advanced level ECE course work, and a minimum of 6 approved non-ECE courses (See Note 1 above).

Doctoral Candidates with Master's Degree Backgrounds

Students with a master's degree in a field other than electrical or computer engineering (or an equivalent) will be able to enter the ECE doctoral program. Each such student will be required to pass preliminary exams in appropriate areas or sub-disciplines of electrical or computer engineering and one sub-discipline or area of their background field.

Student's Graduate Committee

The Graduate Committee for a Ph.D. candidate shall consist of at least five graduate faculty members, at least three from ECE and at least one from outside of ECE. The chairperson of the Committee must be a tenured/tenure-track ECE graduate faculty. If deemed appropriate, a graduate faculty member

outside of ECE can supervise and mentor the student, in the capacity of a co-chair of the Committee. The Committee's activities and structure will otherwise be governed by the appropriate sections of the Graduate Catalog.

Foreign Language Requirement

The ECE doctoral program does not have a foreign language requirement; however, competency in the use of technical tools and techniques such as computer programming, Matlab, Mathematica, VHDL, Verilog and CST is strongly encouraged.

Preliminary Examination and Research Proposal

Students must pass a preliminary examination to be admitted to candidacy. The written and oral preliminary exam will cover three of the principle sub-disciplines of ECE such as signals and systems, digital systems, linear systems and controls, electronics and circuits, electromagnetics, and communications systems. An exam in a sub-discipline of the student's background may be substituted for one of the required ECE sub-disciplines for students with non-ECE backgrounds. The preliminary exams are normally not administered until after a student has completed at least 36 hours of graduate course work beyond the bachelor's degree, with at least one year of work at Baylor. The student is further expected to present a research proposal to the ECE faculty, as approved by their graduate (dissertation) committee, within one year of passing the preliminary exam.

Dissertation

Candidates for the Ph.D. in electrical and computer engineering degree must complete an acceptable dissertation on a research topic in the ECE discipline or closely related field. The dissertation must give evidence that the candidate has pursued a program of research, the results of which reveal scholarly competence and a significant contribution to knowledge.

DEPARTMENT OF MECHANICAL ENGINEERING

Chairperson: Paul I. Ro
Graduate Program Director: Douglas E. Smith

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

The Master of Science in Mechanical Engineering (M.S.M.E.) is designed for students who are interested in engineering careers that require education beyond the baccalaureate degree. Examples of those include engineers performing industrial research and development or students who plan to pursue a doctoral degree.

Admission and Financial Aid

Admission is based on undergraduate academic record, the Graduate Record Examination (GRE), and letters of recommendation for the candidate. Tuition waivers and stipends are available on a competitive basis.

Semester Hours	
Course Work**	24
Thesis (ME 5V99)	6
Total	**30**

**Courses will be selected in consultation with the student's advisor. Courses in the departments of Electrical and Computer Engineering, Mathematics, Statistics, Physics, Chemistry, Biology, or Environmental Science may be included in this total with consent of the advisor.

Thesis Requirements

A discovery-oriented thesis is required in accordance with the criteria listed in the graduate catalog general requirements.

DOCTOR OF PHILOSOPHY IN MECHANICAL ENGINEERING

The Doctor of Philosophy in mechanical engineering (Ph.D.) is designed for students who are interested in engineering careers that require education beyond the Master of Science degree. Examples of those include engineers performing industrial research, research at national laboratories, or careers in engineering academics.

Admission and Financial Aid

All applicants accepted into the Mechanical Engineering (ME) doctoral program must have received a Bachelor of Science degree in mechanical engineering or closely related fields. The GRE exam is required of all applicants.

Credit Hours

The program requirements include a minimum of seventy-six (76) semester hours of approved course work and research hours. A maximum of twenty-four (24) semester hours of approved graduate coursework from a master's in Mechanical Engineering or closely related field may be transferred to the Ph.D. program. Broad latitude is granted in the selection of courses, but all courses must be approved by the student's graduate committee. The semester hours for the Ph.D.must meet the following criteria:

1. At least forty-eight (48) semester hours of course work, subject to the following criteria:
   - a minimum of twenty-four (24) semester hours of 5000 or 6000 graduate level course work within ME
   - a minimum of six (6) semester hours of 5000 or 6000 graduate level course work outside of ME*
   - a maximum of six (6) semester hours of 4000 level course work
   - a minimum of three (3) semester hours of course work in Ethics, Religion, Philosophy, or related area**
2. Doctoral Research hours:
   - a minimum of twelve (12) semester hours of ME Doctoral Research 6V99 taken after the preliminary exam
   - a maximum of twelve (12) semester hours of Engineering Research 6V97 taken prior to the preliminary exam

*Engineering is inherently cross-disciplinary, and oftentimes students may benefit from courses in non-ME disciplines to broaden their understanding of particular applications or knowledge domains. Supportive graduate course hours outside of ME can be selected from areas that include, but are not limited to: electrical and computer engineering, biomedical engineering, computer science, mathematics, statistics, the physical sciences, the social sciences, education or business.

**Engineering is a values-based discipline that benefits from Christian worldview and faith perspectives. Therefore, students are required to take select supportive course in areas that touch on these perspectives. Among the courses accepted for this requirement are one-credit-hour seminars taught by ME faculty on Research Ethics, or on Technology and Society.

Foreign Language Requirement

The ME doctoral program does not have a foreign language requirement. However, competency in a collateral field will be cultivated in students through the requirement of course work outside of ME.

Student's Graduate Committee

The Graduate Committee for a Ph.D. candidate shall consist of at least five members of the Baylor graduate faculty, at least three members from within ME, and at least one member from outside of ME. A researcher from outside of Baylor may serve as a committee member if approved by the ME graduate director and the Baylor members of the committee. The committee chair must be a tenured or tenure-track member of the ME faculty and a member of the Graduate Faculty.

If deemed appropriate, a graduate faculty member outside of ME may supervise and mentor the student, in the capacity of a co-chair of the committee. The committee's activities and structure will otherwise be governed by the appropriate sections of the Graduate Catalog.

Qualifying Examination

Students must pass a qualifying exam that covers course work in three subject areas selected by the student's graduate committee from among those offered by the ME department. The qualifying exam

format will be at the discretion of the ME graduate faculty. A student may petition the graduate faculty to retake one or more failed subject areas of the qualifying exam, but must pass all three subject areas within six months of the date when the first exam was taken.

Preliminary Examination

Students must pass a preliminary exam (Ph.D. proposal) to be admitted to candidacy, and to enroll in Dissertation Research 6V99. The preliminary exam must be submitted in a semester following the semester during which the qualifying exam was passed. The preliminary exam format will be at the discretion of the student's graduate committee, but may typically include a formal written proposal along with a formal presentation providing the committee an opportunity to ask questions about the scope and nature of the proposed research.

Dissertation

Candidates for the Ph.D. in mechanical engineering degree must complete an acceptable dissertation on a research topic in the ME discipline or closely related field. The dissertation must provide evidence that the candidate has pursued a program of research, the results of which reveal scholarly competence and a significant contribution to knowledge.

Teaching Opportunities

Doctoral students considering an academic career may benefit from serving as undergraduate course instructors with a title of Teaching Fellow. To be eligible to serve as a Teaching Fellow a student must have passed the qualifying exam, be approved by the ME department chair, and have completed training through the Graduate School. A Baylor ME faculty member will be assigned to supervise and guide each Teaching Fellow.

INTERDISCIPLINARY DEGREES

Graduate Directors in Engineering: Douglas E. Smith, Ian Gravagne

The Department of Electrical and Computer Engineering and the Department of Mechanical Engineering jointly administer degrees that are interdisciplinary in nature.

MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING

The Master of Science in Biomedical Engineering (M.S.B.M.E.) is designed for students who are interested in engineering careers at the intersection of engineering, biology, and medicine.

Admission and Financial Aid

Admission is based on undergraduate academic record, the Graduate Record Examination (GRE), and letters of recommendation for the candidate. Tuition waivers and stipends are available on a competitive basis.

Requirements

Semester Hours	
Course Work**	24
Thesis (BME 5V99)	6
Total	**30**

**Courses will be selected in consultation with the student's advisor. Courses in the departments of Electrical and Computer Engineering, Mechanical Engineering, Mathematics, Statistics, Physics, Chemistry, Biology, or Environmental Science may be included in this total with consent of the advisor.

Thesis Requirements

A discovery-oriented thesis is required in accordance with the criteria listed in the graduate catalog general requirements.

MASTER OF ENGINEERING

The Master of Engineering (M.E.) is offered for students who are more practice oriented. This program is ideal for students who have an interest in engineering consulting, product development, or appropriate technology for developing countries.

Admission and Financial Aid

Admission is based on undergraduate academic record, the Graduate Record Examination (GRE), and letters of recommendation for the candidate.

Requirements

Semester Hours	
Course Work** (3-6 hours may be EGR 5V98 project course with engineering applications)	33
Total	**33**

** Courses will be selected in consultation with the student's advisor. Master of Engineering students may take up to 15 hours outside the Department of Engineering in the Master of Business Administration (MBA) program or the departments of Mathematics, Statistics, Biology, Chemistry, or Physics with consent of the advisor. Business courses from the MBA program that can be taken include:

MGT 5320 Manufacturing and Service Operations
ENT 5315 Entrepreneurial Behavior and Skills
ENT 5320 Entrepreneurial Finance

ENGINEERING JOINT DEGREE PROGRAMS

Students who are near completion of their undergraduate engineering degree at Baylor University may enter one of the joint programs in which, by proper planning, up to six semester hours of graduate credit may be applied toward the degree requirements of both the bachelor's and master's degrees. Students will select whether to pursue a Master of Science in one of the engineering disciplines or a Master of Engineering. Both diplomas are awarded at the completion of both degree programs. The eight joint degree programs are:

Electrical and Computer Engineering Joint Program	B.S.E.C.E./M.S.E.C.E.
Electrical and Computer Engineering/Biomedical Engineering	B.S.E.C.E/M.S.B.M.E.
Electrical and Computer Engineering/Master of Engineering	B.S.E.C.E./M.E.
Mechanical Engineering Joint Program	B.S.M.E./M.S.M.E.
Mechanical Engineering/Biomedical Engineering	B.S.M.E./M.S.B.M.E.
Mechanical Engineering/Master of Engineering	B.S.M.E./M.E.
Engineering/Biomedical Engineering	B.S.E./M.S.B.M.E.
Engineering/Master of Engineering	B.S.E./M.E.

Admission and Financial Aid

Admission is based on undergraduate academic record, the Graduate Record Examination (GRE), and letters of recommendation for the candidate. For Master of Science programs, tuition waivers and stipends are available on a competitive basis.

Course Requirements for Master of Science

Semester Hours	
Course Work**	24
Thesis (discovery oriented)	6
Total	**30**

**Courses will be selected in consultation with the student's advisor. Courses in the departments of Electrical and Computer Engineering, Mechanical Engineering, Mathematics, Statistics, Physics, Chemistry, Biology, or Environmental Science may be included in this total with consent of the advisor.

Thesis Requirements for Master of Science

A discovery-oriented thesis is required in accordance with the criteria listed in the graduate catalog general requirements.

Course Requirements for Master of Engineering

Semester Hours	
Course Work**(3-6 hours may be EGR 5V98 project course with engineering applications)	33
Total	**33**

** Courses will be selected in consultation with the student's advisor. Master of Engineering students may take up to 15 hours outside the Department of Engineering in the Master of Business Administration (MBA) program or the departments of Mathematics, Statistics, Biology, Chemistry, or Physics with consent of the advisor. Business courses from the MBA program that can be taken include:

MGT 5320	Manufacturing and Service Operations
ENT 5315	Entrepreneurial Behavior and Skills
ENT 5320	Entrepreneurial Finance

JOINT MASTER OF BUSINESS ADMINISTRATION/ MASTER OF ENGINEERING

Associate Dean for Graduate Business Programs: Tim Kayworth
Graduate Directors in Engineering: Ian Gravagne

Students interested in a career requiring complementary skills in both business and engineering may complete the Master of Engineering and MBA degrees concurrently. By proper selection of courses, students can save up to 21 hours in the joint degree compared to the individual requirements of the two separate degrees. Students should consult with advisors in both engineering and business to determine the best sequence of courses.

Master of Engineering students from industry may, with approval of their advisor, select a project that is relevant to their work responsibilities.

Admission

Students must apply and be accepted separately into both programs. The MBA degree requires either the GMAT or GRE exams.

Requirements

Candidates for the joint Master of Engineering/MBA degree must complete 37 hours for MBA and 18 core engineering hours. In addition, the student must complete an additional 15 hours of electives. By proper selection of electives it may be possible to reduce the requirements of the joint degree by up to 21 hours compared to the normal requirements of the two degrees completed separately. This efficiency is achieved by proper selection of business electives for the 15 business course credits allowed for the Master of Engineering program and by a six-credit reduction of the MBA elective requirements reflecting recognition of the additional graduate work in completing the Master of Engineering. Since both degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive either degree. Students are encouraged to contact appropriate advisors in each program for further details.

I. Required Framework Courses		**4 sem. hrs.**
ACC 5121	Accounting Planning	
FIN 5161	Corporate Finance Planning	
MIS 5145	Excel Modeling Foundations	
QVA 5131	Quantitative Methods for Decision Making: Part I	
II. Required MBA Core Courses		**33 sem. hrs.**
ACC 5300	Accounting Tools for Decision Making	
BUS 5101	Focus Firm I	
BUS 5111	Professional Career Development I	
BUS 5112	Professional Career Development II	
BUS 5390	Management Communication	
ECO 5340	Economic Tools for Management Decision Making	
FIN 5360	Corporate Finance	
MGT5310	Management of Organizational Behavior	
MGT5320	Manufacturing and Service Operations	
MGT5385	Strategic Management and Business Policy	
MKT5310	Seminar in Marketing Strategy	
QBA 5330	Business Analytics for Decision Making	

Students who do not have an undergraduate degree in Business Administration are required to take BL 5104 Business Foundations-Business Law.

MIS requirement, choose one from:	
MIS 5342	Business Intelligence
MIS 5345	Decision Making with Excel
MIS 5346	Data Warehousing, or
MIS 5355	Management of Information Systems

Total 37-38 sem. hrs.

III.Core Engineering **18 sem. hrs.**

IV. Required ME Electives **15 sem. hrs.**

DEPARTMENT OF ENGLISH

Chairperson: Dianna M. Vitanza

Graduate Program Director: James E. Barcus

The undergraduate requirements for admission to graduate study in English normally include eighteen semester hours of English beyond the sophomore level. However, if a candidate's background in English is deemed inadequate, the graduate faculty of the department has the prerogative to require additional, designated courses as prerequisites for graduate work. Suitable undergraduate GPAs, both in English and overall, and scores on the Graduate Record Examination General Test (GRE) predictive of success in this program are significant criteria in admissions decisions in the English Department (all applicants must submit GRE General Test scores).

The total number of semester hours required for the Master of Arts degree (thesis track) is thirty, which includes six hours to be credited for the thesis; the total number of hours required for the non-thesis track is thirty-three. An oral examination, which is a defense of the thesis, is required for thesis track students; an oral examination concentrating on course work is required for non-thesis track students. A minor, consisting of six hours of graduate credit, may be taken within the department or in another closely related field. Candidates for the M.A. degree are required to demonstrate intermediate proficiency in a foreign language. To determine the means of satisfying the foreign language requirement, students should consult the statement appearing under "Specific Degree Requirements" in this catalog. The preferred foreign languages for programs in the Department of English are French and German, but students may select any modern foreign language or classical language provided that it is necessary for the thesis and is approved by the Graduate Program Director.

For admission into the doctoral program one ordinarily must have a master's degree from an accredited university. However, exceptionally well-qualified students with the B.A. degree who have high GRE scores and a high GPA both in English and overall, as approved by the department, may enter the Ph.D. program. Also, students who enter the M.A. program may petition to enter the Ph.D. program after successfully completing fifteen hours with a GPA of 3.5, without completing the M.A. thesis. The Graduate Program Director appoints a committee of three graduate faculty, usually instructors of the candidate, to study the student's petition and the student's performance. The committee may recommend to the graduate faculty either that the student proceed toward the Ph.D. or complete the M.A.

The general requirements for the Doctor of Philosophy degree in English follow those outlined under general requirements for the Ph.D. degree in this catalog. Completion of forty-two semester hours of graduate credit beyond the M.A. degree constitutes the minimum requirement for the Doctor of Philosophy degree. Ten classes are required beyond the M.A. degree. Twelve hours of the forty-two total must be allocated for the dissertation. If one enters directly from the B.A. degree, then sixty-six hours of graduate credit beyond the B.A. constitutes the minimum requirement (with twelve hours of this total for the dissertation). Eighteen graduate classes are required beyond the B.A. degree. In addition, the English Department requires of all Ph.D. students, during the undergraduate, master's, or doctoral periods of study, one course in Old English Language, one course in introduction to graduate studies (ordinarily a course in bibliography and research), and one upper-level course in linguistics or critical theory or rhetoric and composition. The candidate for the Ph.D. degree is required to take one course in each of four categories and four courses in an area of concentration. Normally, the student will concentrate her/his seminars in one of the categories of English and American literature that she/he has chosen as a concentration. A seminar may be repeated if the content is on a different topic. Students are expected to take the available seminars in the area of their special research. Although a minor is not required, one is possible. Both the major and minor may be and usually are taken within the department in the areas of either English or American literature. Minor courses and any other courses outside of the department may be taken up to 12 hours of graduate credit; these courses must be directly relevant to the student's area of major study. Candidates will be examined on one area from those listed under "Specific Course Requirements" (see "General Requirements for the Doctoral Degree" provided by the English Department), on one historical area contiguous with the major area and another historical area, and on one open area (e.g., a genre, a major author, critical theory, rhetoric, linguistics, etc.). All Ph.D. students must demonstrate intermediate-level proficiency in two foreign languages. To determine the means of satisfying the foreign language requirement, students should consult the statement appearing under "Specific Degree Requirements" in this catalog. The preferred foreign languages for programs in the Department of English are French and German, but students may select any modern foreign languages or classical languages, provided that they are necessary for the dissertation and are approved by the Graduate Program Director.

All graduate students are responsible for securing the supplementary departmental requirements for their respective degrees from the English office at the time of initial enrollment. The deadline for applying to the M.A. or Ph.D. program is January 31; however, it is clearly advantageous to the applicant who wishes to receive an assistantship to have all components of the application in by January 15. The English graduate program has three types of assistantships available to both M.A. and Ph.D. students. These assistantships carry stipends and tuition coverage that are highly competitive with those offered by other universities. Also, health insurance premiums are paid for Ph.D. students who are Teaching Assistants. Inquiries should be made of the Graduate Program Director.

DEPARTMENT OF ENVIRONMENTAL SCIENCE

Chairperson: George P. Cobb
Graduate Program Director: Sascha Usenko

The Department of Environmental Science offers three degree-options:

1. Master of Science in environmental science for students with a Bachelor of Science degree
2. Master of Environmental Studies for students with a Bachelor of Arts degree
3. Master of Environmental Studies, non-thesis option for students with a Bachelor of Arts degree
4. Doctor of Philosophy in environmental science

Bachelor of Arts majors in a science discipline may petition for the Master of Science in environmental science.

The Environmental Science department welcomes graduate student candidates with diverse academic backgrounds. Students from majors such as anthropology, aviation science, biology, chemistry, engineering, geography, science education, and policy are encouraged to apply. All applicants must submit GRE General Test scores. The department has developed a graduate core course sequence, ENV 5342 – Ecological Risk Assessment, ENV 5303 – Environmental Chemical Analysis, ENV 5368 – Integrated Energy Resource Systems, and ENV 5379 – Ecosystem Management, open to students with graduate standing in all environmental fields. The program offers advanced courses in specialized areas such as water resources, natural resource management, environmental toxicology, and environmental chemistry. Under the direction of a major advisor, graduate students may either focus their course work in a specific area, such as water quality, or they may pursue courses that provide a broad background in environmental issues. Graduate students may also take courses offered in other departments, such as Biology, Chemistry, and Geology, if the courses are appropriate to environmental science or studies and the graduate student's professional goals.

Financial assistance is available for departmental graduate students in the form of teaching assistantships, research assistantships, and scholarships. Loans and other types of aid are available through the Student Financial Aid Office.

Students selecting a thesis option may conduct research in the Waco area, outside the region or internationally. Environmental Science graduate students have conducted research in Asia, Europe, and Central America. Departmental laboratory facilities provide instrumentation and computer support in geographic information systems, computer modeling, water quality analysis, air quality monitoring, and biofuels production. The program engages in field research in a variety of ecosystems, including riparian corridors, reservoirs, grasslands, wetlands, temperate forests, tropical forests, and coastal barrier islands. Current faculty research interests include the social impacts of ecotourism, human dimensions of climate change, wastewater management, water quality, ecotoxicology, improved production of biofuels, conservation of biodiversity, and the ethics of natural resource communities.

Thesis options are appropriate for students interested in research and academic careers, research interest, those pursuing a terminal degree, or those planning careers that require extensive preparation of environmental documentation or plans. A non-thesis option with a required practicum is available for the Master of Environmental Studies (M.E.S.) degree. The semester-long practicum may be either paid or volunteer and must be under a professional supervisor. The non-thesis option is appropriate for students seeking employment in K-12 education, management in environmental organizations, or similar fields. The non-thesis option is not recommended for students planning to pursue a terminal degree, such as a Ph.D.

Objective

The objective of all four degree programs is to train technically competent individuals to assess problems involving environmental issues, to design workable plans, to undertake or direct planned actions toward environmental problem solving, and to work in interdisciplinary teams.

Admission

For admission to the graduate program, candidates must:

1. Meet the general requirements set forth by the Graduate School, including the submission of a Graduate Record Examination (GRE) General Test score.
2. Demonstrate an academic background that is adequate to undertake the course of study that has been defined as the candidate's major area of interest.
3. Present a GPA from undergraduate disciplines that is predictive of success in this program and that supports the candidate's graduate area of interest.

MASTER OF SCIENCE (M.S.)
Requirements

1. Candidates must complete thirty semester hours of graduate courses including six semester hours of research and thesis (5V99). At least twelve semester hours will be 5000-level courses (excluding 5V99).
2. Candidates will present a proposal to their thesis committee that defines the area of environmental interest including the identification of a major problem in the area.
3. When the course work is completed and the thesis is accepted, the candidates must pass an oral examination over the thesis.
4. There is no foreign language requirement.
5. Admission in the Master of Science program requires a Bachelor of Science or Bachelor of Engineering, at least 8 semester hours of chemistry and an additional 40 semester hours of previous course work in sciences, engineering, and mathematics. Note: The 40 science hours plus 8 hours in chemistry will meet the standards for admission into the Master of Science program for applicants with a Bachelor of Arts degree.

MASTER OF ENVIRONMENTAL STUDIES (M.E.S.)
Thesis Option Requirements

1. Candidates must complete thirty semester hours of graduate courses including six semester hours of research and thesis (5V99). At least twelve semester hours will be 5000-level courses (excluding 5V99).
2. Candidates will present a proposal to their thesis committee that defines the area of environmental interest including the identification of a major problem in the area.
3. When the course work is completed and the thesis is accepted, the candidates must pass an oral examination over the thesis.
4. There is no foreign language requirement.

MASTER OF ENVIRONMENTAL STUDIES (M.E.S.)
Practicum Option Requirements

1. Candidates must complete thirty-six hours of graduate courses. At least twelve semester hours will be 5000-level courses (excluding 5V99 and 5V52). No hours of 5V99 may be counted toward the practicum.
2. Candidates must complete a graduate practicum 5V90 for three credits, present an example of their written professional work to the department's graduate faculty for evaluation, and pass a comprehensive oral examination over the work of the program.
3. There is no foreign language requirement.

The following research is supported by the facilities of the Department of Environmental Science:

1. Specie and Habitat Management
2. Water Quality and Pollution Mitigation
3. Biomass Processing and Renewable Energy
4. Human Dimensions of Resource Management
5. Environment and Development
6. Ecotourism
7. Environmental Ethics
8. Ecotoxicology
9. Air Quality

DOCTOR OF PHILOSOPHY (PH.D.)

Requirements

General requirements of the Doctor of Philosophy degree are given in the general requirements section of this catalog. It is not necessary that students with the B.S. degree obtain an M.S. degree before pursuing the doctorate.

1. The Ph.D. in environmental science will require a total of 78 semester hours beyond the requirements of a Bachelor's degree.
2. Specific requirements include:
   a. 24 semester hours of coursework
   b. 3 seminar hours
   c. 6 research hours
   d. 12 dissertation hours
   e. 33 remaining credit hours to include research, laboratory techniques or classroom offerings.

Exact degree plans will be specified by the student's advisory committee no later than their third semester (excluding summers) within the doctoral program.

Our curriculum includes a core of 4 classes. Each student will be required to complete at least three semester hours at the graduate level in each of the following areas: Environmental Toxicology, Environmental Chemistry, Environmental Risk Assessment, and Statistics.

DEPARTMENT OF FAMILY AND CONSUMER SCIENCES

MASTER OF SCIENCE IN NUTRITION SCIENCES

Chairperson: Rinn M. Cloud
Graduate Program Director: Mary K. "Suzy" Weems

The Master of Science in nutrition sciences degree is offered to students who have earned a bachelor's degree from an accredited university or college in a relevant program and have met admission requirements. The program provides two degree options:

Thesis Option: Thirty semester hours of approved graduate courses including six hours of approved thesis research and writing. Six hours will be from support classes including at least three graduate hours of applied statistics such as STA 5300, 5301, 5351 or 5380. Eighteen hours from NUTR courses focused on nutrition sciences or an approved elective. No more than nine hours of the classes may be at the 4000-level.

Sample Curriculum Plan

Year 1:	Fall 3 hrs. from STA 5300, 5301, 5351, or 5380 NUTR 5370 NUTR 5355	9 hrs.
Year 1:	Spring NUTR 5354 or 5357 3 hrs. from support course NUTR 5356	9 hrs.
Year 1:	Summer One NUTR 5352 or 5351	3 hrs.
Year 1:	Summer Two FCS 5V99	1-3 hrs.
Year 2:	Fall FCS 5v99 NUTR 5359 or 5358	3-5 hrs.
Year 2:	Spring FCS 5v99	1-3 hrs.

Non Thesis Option: Thirty-six semester hours of approved graduate courses including a research project and paper (three hours), nine support courses with at least three hours of applied statistics selected from STA 5300, 5301, 5351, or 5380; six semester hours of graduate level courses in areas such as health, exercise, counseling or approved area. Eighteen hours from NUTR courses, including NUTR 5370 (research techniques) focused on nutrition sciences with a maximum of nine hours from graduate classes at the 4000 level. A possible sequence of course work:

Year 1:	Fall NUTR 5370 NUTR 5354 or 5357 NUTR 5355	9 hrs.
Year 1:	Spring 3 hrs. from STA 5300, 5351, or 5380 3 hrs. from support course NUTR 5356	9 hrs.
Year 1:	Summer One NUTR 5358, 5351, or 5352	3 hrs.
Year 1:	Summer Two	0 hrs.
Year 2:	Fall NUTR 5358 NUTR 5359 3 hrs. from support course	9 hrs.
Year 2:	Spring 3 hrs. 5xxx Research Paper NUTR 6 hrs. from 5360, 5357, 5358, FCS 5V93	6-9 hrs.

Eighteen NUTR specific hours will be in the general areas of: Research in Nutrition Sciences, Nutrition and Aging, Pediatric Nutrition, Advanced Medical Nutrition Therapy, Nutritional Pathophysiology, Food Systems Management, Nutrition in Public Health, Global Food and Nutrition, Issues in Nutrition Sciences with no more than nine hours from graduate level courses carrying the 4000 number.

DEPARTMENT OF GEOSCIENCES

Chairperson: Stacy C. Atchley
Graduate Program Director: Daniel J. Peppe

The Department of Geosciences offers graduate work leading to the Master of Science in geology and the Doctor of Philosophy in geology.

Opportunities for research and specialization include theses and dissertations in: (1) engineering geology; (2) environmental geology and urban geology; (3) geoarcheology; (4) geochemistry; (5) geochronology and paleomagnetism; (6) geodesy; (7) geodynamics; (8) hydrogeology and hydrology; (9) human-environment interactions; (10) igneous petrology and volcanology; (11) multiphase, multicomponent flow and transport modeling in the subsurface; (12) organic geochemistry and biogeochemistry;(13) paleoclimatology; (14) paleontology, paleobotany, invertebrate paleontology, and paleoecology; (15) pedology, soil genesis, and paleopedology; (16) petroleum geosciences; (17) planetary sciences; (18) quantitative geomorphology and Quaternary environments; (19) renewable energy and biofuels; (20) seismology; (21) solid earth and applied geophysics; (22) stable isotope geochemistry; (23) stratigraphy, sedimentology, sedimentary petrology, and sedimentary geochemistry; (24) structural geology; and (25) tectonics.

Facilities

The majority of offices, laboratory, and lecture facilities used by the Department of Geosciences are housed in the Baylor Sciences Building. Additionally, many specialized laboratories are located in the Carlile Geology Research Center, which is adjacent to the Baylor Sciences Building, including

laboratories for rock crushing, sawing, and thin-section preparation, as well as for environmental geology, hydrogeology, geophysics, and petrology.

The department has a variety of analytical facilities and equipment used for research and teaching. Geophysical equipment is available for work in applied seismology, gravity, magnetic, and electrical methods. Equipment includes gravity meters, a magnetometer, a conductivity meter, a resistivity meter, a 12-node multi-channel seismic system equipped with 4.5 Hz geophones, and 25 broadband seismic stations, including Nanometrics Trillium Compact sensors and Reftek 130 digitizer/recorders. The department's Scintrex CG-6 gravity meter detects accelerations on the order of 10^{-8} m/s^{-2}, and a mounting tripod allows for the measurement of vertical gradients in Earth's gravity field.

Heavy equipment available includes a trailer mounted drill rig with mud rotary, auger, and coring capabilities, a vibracoring system, a sub-bottom acoustic profiling system, and a 24-foot specially equipped boat. The boat is unique, containing state-of-the-art, high-frequency profiling and Global Positioning System technology. A Cesium 137 analyzer is available for age-dating sediments and soils. Students interested in the engineering/hydrogeology aspects of geology have at their disposal digital data loggers and transducers to instrument aquifers, watersheds, and slopes. These data collection systems allow for monitoring remote sites and permit downloading of information directly to laptop computers or tablets. A Time Domain Reflectometry (TDR) volumetric moisture probe allows for rapid in situ characterization of volumetric soil moisture, integral to water infiltration and recharge studies. A Guelph permeameter is available for characterization of in situ permeability. A Percival E-35VL growth chamber, a Thermoscientific RS485, and a VWR 89511-428 Forced Air Microbiological Incubator are available for algae growth experiments for biofuel research.

The department has a variety of microscopes used in advanced labs and research projects. A Leica M-420 polarizing macroscope and universal stage microscope with digital camera are available for structural petrofabric analysis. An Olympus BX51 research microscope equipped with a high-resolution digital camera and UV fluorescence is also available for thin section work. A Relion cathodoluminescence (CL) microscope is available for diagenetic studies of carbonate and silicate rocks. In the paleobotany laboratory a Nikon SMZ 1500 zoom stereo microscope with a Nikon DS-Fi1 5-megapixel digital camera, a Beseler CS digital photo/video copy stand with lights, a Nikon stereoscope, and a sample preparation area with air handling system are available for sample analysis and curation.

Geochemistry and petrology laboratories include a capillary electrophoresis unit for quantifying the concentration of common solutes in water, an automated Rigaku X-ray fluorescence (XRF) spectrometer for major and trace element analysis of soils, sediments and rocks, a Siemens D5000 X-ray diffractometer (XRD) instrument for mineral identification, an automated New Wave micro-sampling device, a CHNS Elemental Analyzer with a liquid and solid autosampler, a Malvern laser particle size analyzer, and two Thermo-Electron Delta V Advantage isotope ratio mass spectrometers, one with a gas chromatograph/combustion interface for compound-specific isotope analysis and the other with the following peripherals: Gas Bench II, combustion EA, TCEA, and a dual inlet. The Organic Geochemistry Laboratory has an Agilent 6890 gas chromatograph with 5973 Quadrupole mass spectrometer and equipment available for organic matter and "biomarker" extractions and/or petroleum sample preparation including soxhlet 132 extractors, Dionex 200 accelerated solvent extractor ASE), rotary evaporator, turbo evaporator, and a freeze dryer (lyophilizer). The Microbial Biogeochemistry Laboratory is equipped with incubators and associated equipment for cell cultures and chemical extractions as well as a Thermo Scientific LTQ XL Linear Ion Trap mass spectrometer/Dionex Ultimate 3000 HPLC system with diode array and fluorescence detectors for analyzing pigments, polar lipids, and metabolites. The Paul Marchand nuclear magnetic resonance (NMR) facility includes a solid-state 300 MHz Bruker standard-bore spectrometer equipped with two (4mm and 7mm) broad-band double resonance sample probes for multidimensional and cross polarization experiments. The High Temperature Petrology lab houses a Nicolet iN10 Fourier Transform Infrared (FTIR) Spectrometer and a DXR Raman microscope with a 532 nm laser. The FTIR and Raman spectrometers are used to identify minerals and measure volatile contents in minerals and glasses.

The Geoluminescence Dating Research Laboratory utilizes a variety of luminescence technology including three automated Risø Reader systems for age-dating Quaternary deposits using optically stimulated luminescence (OSL). The readers have capabilities for thermoluminescence, infrared, blue, and UV stimulation, as well as linear modulation applications. The two automated Risø TL/OSL readers (Bøtter-Jensen 1997) are used for the single aliquot measurements. One Risø TL/OSL reader is dedicated to single grain analysis. Blue light excitation (470 ± 30 nm) is from an array of 30 light-emitting diodes that delivers approximately 25 mW/cm^2 to the sample position at 90% power. A Thorn EMI 9235 QA photomultiplier tube coupled with three 3-mm-thick Hoya U-340 detection filters that transmit between 290 and 370 nm will be used to measure photon emissions. Laboratory irradiations used a calibrated ^{90}Sr/^{90}Y beta source coupled with the Risø reader and the experimental

sequences were executed using Risø TL/OSL software for MS-Windows. In addition to mounted and calibrated beta source (^{90}Sr) on Risø Reader, the laboratory maintains four independent calibrated, automated alpha and beta irradiators that provide beta or alpha radiation exposure, for up to 20 samples sequentially, at individually prescribed periods ranging from seconds to hours. The laboratory is illuminated by the indirect and diffuse light from sodium-vapor bulbs (590 nm). This facility is equipped with ultrasonic baths; digital scales and precision preheat plates, IEC 2000 centrifuge, and automated grinders for the preparation of a variety of geological materials for luminescence analysis. A portable Na-I gamma spectrometer is also available for field measurements. Support labs include a soil-testing lab, microscope, and sample preparation facilities.

The Thomas T. Goforth Paleomagnetism Laboratory includes instruments useful for rock magnetism, paleomagnetism, and environmental magnetism studies. The laboratory includes a 2G cryogenic DC-SQuID magnetometer with an automated sample-changing device capable of performing three-axis measurements on a series of samples successively between computer inputs, a static alternating-field (AF) device, inline rock-magnetic devices including an ASC IM-10 impulse magnetizer for measuring isothermal remanence magnetization (IRM) and a Bartington MS2B susceptibility sensor and MS2 susceptibility meter, and an ASC controlled atmosphere thermal demagnetizer. All of the instruments are housed within a 14' by 10' two-layer magnetostatic shielded room. Outside of the shielded room, the laboratory also has a Bartington MS3 susceptibility meter, a Bartington MS2 temperature-susceptibility temperature system, a MS2C core logging sensor with a manual core track, and a Princeton Measurements Vibrating Sample Magnetometer (VSM) available for rock and environmental magnetism studies.

The Department of Geosciences maintains state-of-the-art computational facilities in the Baylor Science Building and has access to massively-parallel computing platforms that reside in the Information Technology Services server facility. The Remote Sensing and GIS laboratory contains Windows workstations, associated servers and peripheral devices. The Beaver-Brown Applied Petroleum Studies laboratory maintains high-performance Windows workstations with dual screens and industry-grade software for analyzing subsurface well log and seismic data. The Geophysics Research Laboratory maintains a cluster of high-performance Linux and Mac workstations for geophysical data processing and analysis. Additionally, four computer laboratories are available for student use. One contains dual-boot Windows and Linux workstations with software for special applications. An extensive geology research library is housed in the Jesse Jones Science Library with a smaller reference collection located in the Baylor Sciences Building.

MASTER OF SCIENCE IN GEOLOGY

To be qualified for admission to graduate study with a major in geology, students must have completed an undergraduate degree in geology or a related field. The Graduate Record Examination General Test (GRE) is required within the last five years. A proficiency in the other sciences and mathematics, equivalent to that required for the bachelor's degree in geology (Calculus I and II, two semesters of chemistry, and two semesters of physics) is expected of graduate students in geology.

Candidates must complete thirty semester hours of graduate courses including six semester hours of thesis. For the M.S. degree, at least twelve semester hours of the 24 graded course hours of credit must be earned from 5000-level courses, excluding 5V99, as part of the graduate program. No more than six semester hours of credit may be earned in special problems, 5V90. GEO 5050 is required for four semesters during residency. A thesis (GEO 5V99 for six semester hours) is required of all students. An oral examination is required.

DOCTOR OF PHILOSOPHY IN GEOLOGY

All students accepted into the doctoral program must have received a bachelor's or a master's degree in geology or a related field prior to enrolling and must complete a minimum of sixty semester hours beyond the bachelor's degree (including twelve hours of dissertation) for the Ph.D. degree. For the Ph.D. degree, at least 30 semester hours of the 60 graded course hours of credit must be earned from 5000-level courses, excluding 6V99, as part of the graduate program. The Graduate Record Examination (GRE) General Test is required within the last five years. The student's Advisory Committee shall consider his/her past course work and determine the courses needed for this degree. There is no foreign language requirement. All students are required to pass a preliminary examination during their second semester of residence. The dissertation must be completed with a minimum of two first-authored papers published in refereed journals approved by the student's committee. All students must enroll in GEO 5050 (Geology Technical Sessions) each semester that he/she is in residence, and must enroll in the GEO 5V90 Grant Proposal Writing Seminar during the first fall semester of their residence. For further details, see the section on doctoral degrees in the General Information section of this catalog. The student may not take more than 10 hours of 5V90 except with approval of their dissertation committee.

Funding Opportunities

Funding opportunities for graduate research, in addition to Graduate Teaching Assistantships (GTAs) offered through the Baylor Graduate School include Graduate Research Assistantships (GRAs) on externally funded grants. Applied Petroleum Studies Fellowships (M.S.) and the Geology Alumni Graduate Scholarship (M.S.), the Glorietta Scholarship, and Wendlandt Scholarships.

DEPARTMENT OF HEALTH, HUMAN PERFORMANCE AND RECREATION

Chairperson: Paul M. Gordon
Graduate Program Director: Jaeho Shim

Students seeking admission into the Master of Science program within the Department of Health, Human Performance and Recreation (HHPR), must meet the admission requirements of the Graduate School for full or probationary status. The GRE General Test is required. In addition, applicants must meet specific HHPR program requirements within their selected major. Candidates who do not meet specific HHPR program admission requirements will be required to complete undergraduate course work to meet identified deficiencies. Previously completed course work will be evaluated on an individual basis to determine if any deficiencies exist in foundation courses for the discipline. Requirements vary within the majors and are noted in the HHPR Graduate Departmental Handbook. Identified courses may be completed concurrently with graduate work, but must be completed before the student is admitted to candidacy for the degree. Students should contact the HHPR Graduate Program Director if they have specific questions regarding this process.

Students must successfully complete requirements for a culminating experience by taking a written comprehensive examination. Dependent upon the degree option selected, students must complete the requirements for a thesis, research project, internship, or practicum. After completing the selected requirement/option, the student must make a professional presentation of this experience to a select examination committee.

Comprehensive Examination

Candidates for the master's degree in the HHPR department are required to take a written comprehensive exam over their program of study. Each semester an examination period is scheduled by the HHPR Graduate Program Director which is in accordance with Baylor University Graduate School deadlines. Students interested in taking the comprehensive exam in a particular semester must notify the HHPR Graduate Program Director in writing of their intent to sit for the exam early in the enrollment period (usually by the end of the second week). The date of the exam is announced (usually by the end of the third week) by the HHPR Graduate Program Director. Only one comprehensive exam will be given during the summer and that exam date will usually be scheduled between the first and the second summer session. Students must pass the exam within the five-year time limit for completion of degree requirements. Students will not be permitted to take the comprehensive exam unless at least a "B" average has been earned on all graduate work completed and unless admission to candidacy has been approved.

The examination shall be prepared and graded by the comprehensive examination committee selected from HHPR faculty and other faculty members from specific areas of specialization. The comprehensive exam will consist of six content areas, four from the selected major core and two from research methods and statistics requirements. Exercise Physiology students' exam will consist of six content areas, three from the Exercise Physiology Core, one from a selected elective course, and two from research methods and statistics. Prior to the deadline established by the Graduate School for each enrollment period, the Graduate School will be notified in writing when students have passed or failed the examination. If the student fails the written portion of the comprehensive exam, the student must participate in a follow-up examination process that will be scheduled within 1-2 weeks after the written exam. Students failing the written and oral exams may repeat the process at a time approved by the comprehensive examination committee but no earlier than 4 months. Before taking the exam again, students should consult with the comprehensive examination committee which may require the completion of additional course work or other additional study. **Students who fail the comprehensive examination the second time will be dropped from candidacy for the degree.**

Thesis

A thesis is optional for the majors of Exercise Physiology and Sport Pedagogy. When elected, the thesis will carry a total of six semester hours. **It is imperative that students selecting the thesis option contact the HHPR Graduate Program Director to begin this process**. Once students have enrolled for thesis credit, they must maintain continuous enrollment for one semester hour of thesis

during each regular semester, including at least one summer term each year, until the thesis has been accepted by the Graduate Dean. Departmental assistance is required for enrollment. Credit is awarded only upon completion and approval of the thesis. No letter grade is given for completing the thesis.

Students will not be permitted to enroll for thesis hours until they have completed a minimum of 18 hours, 15 hours in the Exercise Physiology Program, of graduate course work within their primary area of study within HHPR with at least a B average (GPA=3.0). Included in these hours, students must have completed their requirements in Research Methods and Statistics. Also, students must have satisfactorily passed the thesis prospectus review before enrolling in thesis credits.

Guidelines for Preparing the Dissertation and Thesis is the official handbook for all theses presented to the Baylor University Graduate School. The "Guidelines" handbook leads students through the administrative steps for completing the thesis and attempts to ensure that all theses completed at Baylor University present similar appearance and meets all the standards of the Graduate School. **The thesis must meet the Graduate School standards for format and appearance as outlined in the Baylor University** *Guidelines for Preparing the Dissertation and Thesis*.

Internship/Practicum

If the thesis or research project option is not selected, an internship or practicum experience must be selected by working closely with the HHPR graduate internship coordinator. Exercise Physiology students choosing a practicum will also select from one additional course from Exercise Physiology or Restricted Electives to complete their capstone experience. The primary purpose of the Internship experience is to bridge the gap between the academic present and the professional future. The internship carries a maximum of six semester hours while the practicum carries a maximum of three semester hours. **To enroll in this capstone experience, students must have maintained at least a "B" average, completed the HHPR core courses for all majors (HP/PUBH 5379 or EDP 5335 and EDP 5334 or STA 5300) and completed at least 24 hours of graduate course work within the selected academic major.**

Academic Majors

The Department of Health, Human Performance, and Recreation offers two master's degrees: a Master of Science degree and a Master of Athletic Training. For the Master of Science degree, students may choose one of the majors listed in a subsequent section. A six hour core curriculum is required in research design and statistics for the Master of Science degree. Please visit the HHPR departmental website at www.baylor.edu/HHPR/ for additional information.

Core Courses Required For All Majors

HP/RLS	5379	Research Methods in Health, Human Performance and Recreation	3
EDP	5334	Statistical Methods, or	
STA	5300	Statistical Methods	3

Majors for the Master of Science Degree

Exercise Physiology

Required:			sem. hrs.
Core			9
HP	5328	Physiology of Exercise I – Neuromuscular Aspects	3
HP	5330	Physiology of Exercise II – Cardiopulmonary Aspects	3
HP	5340	Biochemistry in Exercise Science	3
Sub-total			**15**
Exercise Physiology Electives (choose two courses from the following list)			**6**
HP	5322	Exercise Nutrition and Endocrinology	3
HP	5324	Muscle Physiology and Metabolism	3
HP	5333	Exercise Testing and Prescription	3
HP	5352	Principles of Exercise and Sport Nutrition	3
HP	5354	Methods of Strength and Conditioning	3
HP	5357	Exercise Programming for Individuals with Chronic Diseases and Disabilities	3
Sub-total			**21**

Suggested Restricted Electives (choose one course from the following list)			**3**
HP	5355	Power, Speed, Agility Training	3
HP	5358	Environmental Physiology	3
HP	5370	Sport Psychology	3
HP	5384	Biomechanics of Human Movement	3
PUBH	5337	Health Concepts in Epidemiology	3
NUTR	4351	Life Cycle Nutrition	3
NUTR	5351	Nutrition and Aging	3
HP	5V70	Special Topics in HHPR*	3
Sub-total			**24**
Capstone Experience			**6**
HP	5V90	Internship	6
HP	5V94	Practicum in HHPR and HP 5V70 or 3-hr. course from Exercise Physiology or Restricted Electives or another HP 5V94	3
HP	5V99	Thesis	6
Total			**30**

*Requires Exercise Physiology Faculty Committee approval. HP 5V70 may be taken up to three times, not to exceed 3 hrs. of course credit.

Sport Pedagogy/Coaching

Required:			sem. hrs.
Core			6
HP	5377	Issues and Trends in Human Performance & Sport Management	3
HP	5335	Sport Pedagogy	3
HP	5354	Methods of Strength & Conditioning	3
HP	5368	Motor Skill Learning & Performance	3
HP	5370	Sport Psychology	3
HP	5384	Biomechanics of Human Movement	3
Sub-total			24
***Restricted Electives**			6
**HP	5334	Pedagogy & Physical Education	

**Requires approval from Sport Pedagogy Director.*

***This class is required for those who want to pursue their teaching certification and Master's degree concurrently. This class serves as 3 of the 6 restricted elective hours necessary.*

Required Culminating Experience			6
*HP	5V99	Thesis or	
*HP	5V90	Internship or	
*HP	5V94	Practicum in HHPR	
Total			**36**

*Requires Departmental Approval

MASTER OF ATHLETIC TRAINING

Required:			sem. hrs.
Core			6
HP	5301	Introduction to Patient Care	3
HP	5302	Evaluation and Diagnosis I	3
HP	5401	Evaluation and Diagnosis II	4
HP	5402	Evaluation and Diagnosis III	4
HP	5303	Therapeutic Intervention I	3
HP	5403	Therapeutic Intervention II	4
HP	5110	Clinical Education	5
HP	5304	Concepts of Patient Management	3

HP	5201	Administrative Topics in AT	2
HP	5305	Advanced Patient Care	3
HP	5308	Professional Preparation and Current Topics in AT	3
HP	5309	Interdisciplinary Approach to Healthcare	3
Sub-total			46
Required Culminating Experience			6
*HP	5306	Project in Athletic Training I and	
*HP	5307	Project in Athletic Training II or	
*HP	5V99	Thesis	6
Total			**52**

**Requires departmental approval*

On programs with restricted electives, students are strongly encouraged to consult with their area director and/or the Graduate Program Director before making elective decisions.

JOINT BACHELOR OF SCIENCE IN EDUCATION/ MASTER OF ATHLETIC TRAINING

The BSEd/MAT joint program is a 5-year program of study. This joint degree will allow qualifed students the opportunity to obtain a B.S.Ed. in Health Science Studies (110 credit hours) and a Master of Athletic Training (52 credit hours) in a minimum of five years of full-time study. All requirements for both the BSEd and MAT must be met and the degrees awarded concurrently.

Admission

Undergraduate students in the Health Science Studies (HSS) program can apply for the BSEd/MAT joint program at the beginning of the sixth semester. Applicants must be majoring in HSS, have 3.0 or higher GPA in the major, and have completed 89 credit hours prior to applying for the program. The BSEd in HSS degree will be awarded with the MATH upon completion of all degree requirements. Students who decide to withdraw from the joint degree program or who do not maintain a 3.0 will be required to change into another HSS tract and will not be allowed to re-enter the joint degree program at a later time. Pre-AT students who are not admitted to the MAT program will be required to select another major, as the Pre-AT tract does not lead to completion of a degree.

Requirements

A maximum of 15 credits of course work will count toward both degrees. Students would receive dual credit from the completion of five graduate classes (i.e. HP 5301, 5302, 5303, 5304, 5305) specifically related to the development of AT skills. While enrolled in Project in Athletic Training students will complete and successfully defend a thesis or research project that is approved by the Athletic Training faculty. In addition to the required coursework a student will have to complete written comprehensive exams to fulfill the degree requirements.

JOINT BACHELOR OF SCIENCE IN EDUCATION/ MASTER OF SCIENCE IN SPORT PEDAGOGY

The BSEd/MS joint program is a 5-year program of study. This joint degree program will allow qualifed students in the All-Level Physical Education (ALPE) program the opportunity to obtain a Bachelor of Science in Education (BSEd, 124 credit hours) and a Master of Science in Sport Pedagogy (MS, 36 credit hours) and Texas Teaching Certification in five years of full-time study. All requirements for both the BSEd and MS must be met and the degrees awarded concurrently.

Admission

Undergraduate students in the ALPE program can officially apply for the BESEd/MS joint program at the end of their junior year. Applicants must be ALPE majors and have a GPA of 2.75 or higher in both total hours and in the major prior to applying for the program and have satisfactorily completed additional teacher certification efolio requirements prior to applying for the teacher certification. Applicants must obtain approval of the undergraduate ALPE advisor and program director approval from the graduate Sport Pedagogy director, and they will be admitted when they have completed at least one semester of graduate work and have maintained at least a 3.0 GPA. At the end of the junior year, candidates with 90 or more undergraduate hours and a 3.0 GPA or better may continue the joint

degree program. Those who do nothave a 3.0 or better and those who choose to withdraw from the join degree program will be allowed to finish the BSEd in ALPE if they meet undergraduate requirements for teacher certification. The BSEd degree will be awarded with the MS upon completion of all degree requirements.

Requirements

To obtain a BSEd/MS in the joint degree program, a student must complete all hours in both the undergraduate ALPE program and the Master of Science in Sport Pedagogy program. ALPE candidates with 90 undergraduate hours and a 3.0 GPA will be eligible to apply for the MS in Sport Pedagogy. Upon acceptance into the MS Sport Pedagogy program students will be eligible to take the graduate level courses. Students who are admitted into the MS Sport Pedagogy program will be allowed to count 15 graduate credit hours towards both degrees.

DOCTOR OF PHILOSOPHY IN KINESIOLOGY, EXERCISE NUTRITION, AND HEALTH PROMOTION

Ph.D students are required to take a minimum of seventy-two (72) hours for the degree including 6 hours of professional development and professional ethics, and a minimum of 12 hours in research methods and statistics courses. To form their 9 hour KENH core, students will be required to take one course in three of the following areas: 1) exercise physiology/nutrition in HHPR; 2) nutrition in the Department of Family and Consumer Sciences; 3) biomechanics or motor behavior/performance. In addition to these 27 hours of course work, students must complete 15 hours of directed research (generally 3 hours per semester) and 12 hours of dissertation. The remaining 18 hours of course work will consist of graduate courses in HHPR and FCS (minimum of 9 hours) or relevant course work in other departments/programs (e.g., business, educational psychology, biomedical engineering, psychology, etc.).

General Admission Requirements

Students wishing to pursue the Doctor of Philosophy degree in Kinesiology, Exercise Nutrition, and Health Promotion must apply and meet all general requirements for admission to the Graduate School of Baylor University. Qualified students will be admitted regardless of race, color, national or ethnic origin, gender, age, or disability. The applicant's packet will be considered complete when all application materials have been received.

Department Admission Requirements

The following are the specific requirements from the Department of Health, Human Performance, and Recreation for admission to the Doctor of Philosophy degree in Kinesiology, Exercise Nutrition, and Health Promotion:

- An equivalent of a master's degree in a related area of exercise physiology, nutrition, health, sports medicine, physical therapy, athletic training, nursing, allied health, or medicine OR appropriate undergraduate degree work that would suggest that the student could be successful in the program.
- Completion of a departmental doctoral program application form describing academic preparation, degrees earned, interests in the doctoral program, professional goals, research skills, and teaching/work experience.
- Letter of intent and samples of writing such as copies of representative publications, articles abstracts or other samples of the applicant's technical writing.
- Three letters of reference from mentors who have insight regarding potential for success in the doctoral program.
- An appropriate and acceptable score on the verbal and quantitative portions of the GRE.
- A minimum of a 3.50 overall GPA on graduate work and/or undergraduate work if applicant is applying with only an undergraduate degree completed at an accredited college or university.
- Willingness of an applicant-identified mentor to supervise the applicant's doctoral training.

Departmental Supervision

Potential students will need to identify a mentor upon application to the program. Students will not be admitted unless there is a faculty mentor willing to serve as their mentor. The mentor will serve as the student's academic advisor throughout the program and will serve as their dissertation chair. In rare cases, students may elect to change mentors, but only with the current mentor, prospective mentor, and graduate program director's approval.

Prerequisite Courses

Although most applicants will have backgrounds in appropriately-related fields, the possession of degrees in these fields is not required for admission. It should be recognized, however, that applicants with deficiencies in academic backgrounds will be determined by the student's mentor and remedial course work prescribed. In general, such remedial course work cannot be counted toward the credit hours required for the degree.

Period of Study

- 2 to 3 years academic study
- 1 year dissertation

Program Course Sequence

The program is designed to consist of two to three years (fall, spring, and summer sessions) of course work and one year of dissertation research. During the first year, students will take a core of statistics and research methods courses designed to provide a strong multidisciplinary background in conducting kinesiology, exercise nutrition, and health promotion research. During the second and third years, under the guidance of their mentor, students will take emphasis area course work and electives to provide research specialization. During both the first and second years, with consultation and/or guidance from their mentor, students will take directed research hours. For these research hours, students will be required to have collected data from an independently-led or collaborative research project resulting in manuscript submission to a peer-reviewed journal and presentation at a national/international conference before being allowed to take preliminary exams and progressing to doctoral candidacy. The final year is dedicated to dissertation research. Students must be registered for at least one semester hour of graduate credit during the semester of intended graduation. The maximum time limit for the doctoral degree is described in the Baylor University Graduate Catalog (http://www.baylor.edu/graduate/index.php?id=47232).

Preliminary Examination

Students will take a preliminary examination upon completing all course work or within 6 hours of completing their course work. With the consultation of the student's mentor, the student will form an advisory committee that will serve to administer the preliminary exam and consult on the dissertation research (see dissertation supervision section below). At least four faculty members will serve on the advisory committee, the composition of which will be approved by the Graduate Program Director and include at least three members within the HHPR Department graduate faculty and one graduate faculty member outside the department. The preliminary examination consists of written and oral testing by the student's advisory committee. The primary purpose of the preliminary examination is to assess the student's understanding of the broad body of knowledge in a field of study. The examination also affords the advisory committee an opportunity to review the student's understanding of research methods and literature in the chosen field. The student will schedule separate written examinations with each advisory committee member. Each written examination will be evaluated by the committee member who provided the questions and graded as pass, pass with stipulation, pass with distinction, or failure. Committee members will convey the student's results to the mentor and, together with the mentor, determine if the student is prepared to take the oral portion of the preliminary exam. The oral portion of the preliminary examination should be conducted within two to four weeks after the successful completion of the written examinations. Each member of the advisory committee will vote to determine if the student has passed the exam. This determination will be based on the overall performance on both the written and oral portions of the exam. The student becomes a candidate for the doctoral degree on successful completion of both the written and oral portions of the preliminary examination. If the preliminary examination reveals deficiencies in any of these areas, the advisory committee may recommend remedial work or re-examination. Two or more votes to "fail" a student will constitute failure of the exam. Students who fail this examination may re-take their examinations no sooner than four months after, and within one year of the initial written preliminary examinations. After two failures of the exam, either in its whole or part form, the student will not be allowed to continue in the doctoral program.

Admission to Candidacy

Students are recognized as candidates for the doctoral degree only after they have passed the preliminary examination, completed all departmental requirements (except the dissertation), and received approval by the Graduate School of their formal application for admission to candidacy. An application for admission to candidacy must be filed with the Office of the Graduate School upon successful completion of the above requirements. This form should be filed no later than five months prior to the date on which the degree is conferred, and prior to a student registering for dissertation hours.

Dissertation Supervision

The dissertation advisory committee is determined by the student and mentor under general guidelines. The committee will be composed of the following members:

Three faculty members from HHPR with Graduate Faculty status: The student's primary mentor from HHPR (The mentor will serve as chairperson of the committee and must be a member of the graduate faculty.) and; at least two additional HHPR faculty.

At least one Graduate faculty member from a department other than HHPR, preferably from whom the student has taken an elective course and/or will serve in a useful consulting capacity for the student's dissertation work.

One additional Graduate faculty member from inside or outside HHPR.

NOTE: One of the committee members must be a full Graduate Faculty member who is not affiliated with the program in which the student is studying.

Dissertation

A dissertation is required of all candidates for the degree of doctor of philosophy. The dissertation must give evidence that the candidate has pursued a program of research, the results of which reveal scholarly competence and a significant contribution to knowledge. The candidate conducts the research and prepares the dissertation under the direction of the mentor and in consultation with the dissertation advisory committee.

The candidate will develop a dissertation proposal for approval by the dissertation advisory committee. The candidate will conduct the dissertation work and prepare and submit a dissertation draft for committee approval. The candidate will arrange for a final oral examination, a defense of their dissertation work, on committee approval of the dissertation draft. The candidate will make any final revisions to the dissertation, according to the directions of the dissertation advisory committee, and complete all remaining Graduate School requirements to successfully complete their doctoral studies.

Candidates should acquire the *Guidelines for Preparing the Dissertation and Thesis* and other necessary forms and materials for graduation under the "Current Students" tab on the Baylor Graduate School webpage (http://www.baylor.edu/graduate/). The "Current Students" tab includes semester calendar and deadlines, directions for completing the dissertation, and an explanation of fees associated with the dissertation and graduation process. Additional degree completion materials not available on the Graduate School webpage are provided to students when they file for graduation.

Required Course work

Research Seminar (0 hour, required every semester)

HP	6000	Doctoral Research Seminar

Professional Development and Ethics (6 hours)

HP	5397	Christianity Ethics and Research with Human Participants
HP	5398	Contemporary Ethical Issues in Sport
EDL	6302	Teaching & Learning in Higher Education

Research Methods (3 hours)

HP	6300	Research Methods in KENHP

Statistics (9 hours)

EDP	5334	Statistical Methods
EDP	6360	Experimental Design I
EDP	6361	Experimental Design II
EDP	6362	Applied Multiple Regression/Correlation Analysis in Education
or		
STA	5300	Statistical Methods
STA	5301	Introduction to Experimental Design
STA	5381	Regression Analysis
STA	5384	Multivariate Statistical Methods

Directed Research (15 hours)

HP	6V70	Directed Research in KENHP

Dissertation Research (12 hours)

HP	6V99	Dissertation

KENHP Core (9 hours)

One three-hour credit course at the graduate level in three of the four areas below:

- Exercise Physiology or Exercise Nutrition in HHPR
- Nutrition in the Department of Family and Consumer Sciences (NUTR)
- Biomechanics or Motor Behavior in HHPR
- Health Promotion in the HHPR MPH Program

Courses in Exercise Physiology or Exercise Nutrition in HHPR

HP	5320	Nutritional Biochemistry
HP	5322	Exercise, Nutrition, and Endocrinology
HP	5324	Muscle Physiology and Metabolism
HP	5326	Macronutrients, Micronutrients, Exercise and Health
HP	5328	Physiology of Exercise I: Neuromuscular Aspects
HP	5330	Physiology of Exercise II: Cardiopulmonary Aspects
HP	5333	Exercise Testing and Prescription
HP	5340	Biochemistry in Exercise Science
HP	5352	Principles of Exercise and Sport Nutrition
HP	5353	Obesity and Weight Management
HP	5354	Methods of Strength and Conditioning
HP	5357	Exercise Programming for Individuals with Chronic Diseases and Disabilities
HP	5V65	Research Seminar

Courses in Biomechanics or Motor Behavior in HHPR

HP	5334	Pedagogy & Physical Education
HP	5335	Sport Pedagogy
HP	5348	Psychology of Physical Activity
HP	5368	Motor Skill Learning and Performance
HP	5370	Sport Psychology
HP	5384	Biomechanics of Human Movement

Courses in Health Promotion in the PUBH Program

PUBH	5315	Theoretical Foundations of Health Behavior and Public Health
PUBH	5329	Current Health Issues
PUBH	5334	Foundations of Public Health
PUBH	5337	Public Health Concepts in Epidemiology
PUBH	5350	Assessment and Planning in Public and Community Health
PUBH	5360	Evaluation in Public and Community Health
PUBH	5368	Preventive Health in Aging Populations
PUBH	5370	Physical Activity and Public Health
PUBH	5378	Administration and Leadership in Public Health
PUBH	5V70	Special Problems in Health, Human Performance and Recreation

Courses in Nutrition in FCS

NUTR	5351	Nutrition and Aging
NUTR	5352	Pediatric Nutrition
NUTR	5354	Nutrition in Public Health
NUTR	5355	Macronutrients and Metabolism
NUTR	5356	Micronutrients and Phytochemicals
NUTR	5357	Global Aspects of Food and Nutrition
NUTR	5358	Emerging Issues in Food and Nutrition

Other Graduate Courses KENH

HP	5327	Financial Management in Sport
HP	5332	Prevention and Rehabilitation of Leisure-Related Sport Injuries
HP	5336	Sport Marketing
HP	5338	Public Relations in Sport

HP	5360	Differential Diagnosis and Therapeutic Intervention for the Lower Extremity and Spine
HP	5361	Differential Diagnosis and Therapeutic Intervention for the Upper Extremity and Spine
HP	5362	Orthopedic Rehabilitation and Reconditioning for Diverse Populations
HP	5363	Manual Therapies in Orthopedic Rehabilitation
HP	5372	Legal Issues in HHPR and Athletics
HP	5373	Sport Management
HP	5374	Sport in the Social Context (cross-listed as SOC 5374)
HP	5375	Governance in Sport
HP	5376	Facility and Event Management (cross-listed as RLS 5376)
HP	5377	Issues and Trends in Human Performance and Sport Management
HP	5398	Contemporary Ethical Issues in Sport
HP	5V70	Special Problems in Health, Human Performance and Recreation
HP	5V75	Seminar in HHPR

Electives

(18 hours: minimum 9 hours of electives within HHPR/NUTR; 6 additional hours of graduate study may be taken outside HHPR/NUTR)

DEPARTMENT OF HISTORY

Chairperson: Kimberly R. Kellison
Graduate Program Director: Joseph Stubenrauch

Requirements for a Master of Arts degree in history:

I. Admissions Requirements

1. GPA and GRE scores predictive of success in the program.
2. An undergraduate major in history, or at least eighteen semester hours of history at the undergraduate level with a degree in the humanities and social sciences or twenty-one semester hours with other degrees.
3. Three letters of recommendation
4. Personal statement outlining area of historical interest

II. Degree Requirements

1. Thirty hours of history, including HIS 5370 and a six-hour thesis.
2. At least eighteen hours, exclusive of thesis, must be 5000-level courses, and students must take at least one course in each of the three areas--American, European, and global (i.e. non-western or Latin America).
3. Students may choose to take up to six hours of their coursework from one of the following departments: English, Museum Studies, Music, Philosophy, Political Science, Religion, Psychology, Social Work (6000-level only), and Sociology.
4. Demonstrated intermediate proficiency in one modern foreign language by one of the methods listed in the Specific Degree Requirements for the Doctor of Philosophy degree in the General Information section of this Catalog.
5. A comprehensive written examination on course work offered for the degree will be given in the fall and spring semesters, and once during the summer session. Students must pass four of five written examinations and must pass the examination for HIS 5370. The examination, or individual parts, may be repeated once after a three-month delay.
6. Satisfactory oral defense of the thesis.

Requirements for a Doctor of Philosophy degree in history:

I. Minimum Admissions Requirements

1. GPA and GRE predictive of success in the program
2. Three Letters of Recommendation
3. Personal Statement outlining why the student wants to study in the Ph.D. program, what research and teaching interests the student intends to pursue, and which faculty he or she intends to have as a mentor and eventual dissertation advisor.

4. Brief writing sample—undergraduate or master's-level paper at least fifteen pages in length.
5. Interview with proposed major professor before admissions deadline is recommended.

These minimum requirements do not ensure that an applicant will be accepted into the program. The graduate committee will consider each applicant individually in light of several factors including the student's proposed area of interest and suitable faculty mentor willing to take that student, the applicant's recommendation letters, university funding and availability of financial support, and the quality of the applicant pool in a given year.

II. Degree Requirements

1. Three years residence (minimum on-campus time)
2. Course Work
   A. Students entering with a bachelor's degree
      54 hours of course work. For these students, the M.A. thesis will be waived, and the student will be granted an M.A. degree after successfully completing course work and written examinations over their preliminary examinations reading lists (see #4 below).
   B. Students entering with a master's degree
      39 hours of course work
   C. All entering M.A. and Ph.D. students will be required to take HIS 5370, the historical research and writing/historiography course, during their first semester.
   D. All students must take at least one European and one Global (i.e. non-western) course.
   E. Ph.D. students may take up to 6 hours in the following departments: English, Museum Studies, Music, Philosophy, Political Science, Religion, Psychology, Social Work (6000-level only), and Sociology.
3. Languages
   Demonstrated intermediate proficiency in one modern foreign language by one of the methods listed in the Specific Degree Requirements for the Doctor of Philosophy degree in the General Information section of this Catalog.
4. Preliminary Examination Readings (6 hours)
   Following course work, students will enroll in 6 hours of HIS 6V85. Students will develop three prelim reading lists of roughly 50-100 books and major articles for each list. It is expected that the reading list for the student's dissertation field will be longer than the other lists (see dissertation field below). Each list will be developed in consultation with a professor on the student's reading list committee. The lists should comprise the following fields:
   A. Major field
   B. Minor field (must be on continent other than student's major)
   C. Dissertation field (field within the major field in which the student anticipates his or dissertation work)
5. Dissertation (12 hours)
   The capstone of the Ph.D. degree is the dissertation. Students will enroll in a total of 12 hours of HIS 6V99 as they write the dissertation. The dissertation must make an original scholarly contribution to the student's chosen area of study. The student will be requiredtoorallydefend the written dissertation to a dissertation committee composed in accordance with Graduate School regulations.
6. Teaching experience for students
   All Ph.D. students will be required to complete a teaching mentor program.

Program Funding

Students admitted to the M.A. or Ph.D. program will usually be granted a tuition waiver and graduate assistantship. Graduate assistants are required to work in the department 10 hours a week and will receive a monthly stipend.

Requirements for a graduate minor in history

1. Master's level minor:
   a minimum of six semester hours of 4000-5000 level courses.
2. Doctoral level minor:
   a minimum of twelve semester hours of 4000-5000 level courses.

DEPARTMENT OF JOURNALISM, PUBLIC RELATIONS AND NEW MEDIA

Chairperson: Sara Stone
Graduate Program Director: Mia Moody-Ramirez

MASTER OF ARTS

Admission

The entering candidate must meet minimum requirements established by the Graduate School, and hold a bachelor's degree in journalism, PR, new media, print, broadcast journalism or in any other discipline. In the last case, the student must either take nine hours of leveling courses, determined by the department or pass placement examinations meeting department requirements. The GRE General Test is required.

Requirements

The Master of Arts degree in journalism requires thirty-six hours, thirty-three of which are course work and three of which are thesis or a major project. Available areas of degree concentration are news-editorial, public relations, advertising or critical studies. The maximum course load for journalism majors is 12 hours per semester, with approval of the Graduate Program Director.

Course Requirements

Journalism Core — 12 sem. hrs.

JOU	5310	Research Methods in Mass Communication
JOU	5320	Theory of Mass Communication
JOU	5350	Seminar in Mass Communication (any topic)
JOU	5V99	Master's Thesis
	or	
JOU	5388	Master's Project

Measurement or Statistics — 3 sem. hrs.

Such as:

PSY	4300	Advanced Statistics I
PSY	5302	Measurement in Psychology
SOC	5303	Social Measurement and Causal Modeling
EDP	5334	Statistical Methods

Outside Graduate-Level Research — 3 sem. hrs.

Such as:

HIS	5370	Historical Research and Writing
HIS	5367	Seminar in Oral History
PSY	5401	Introduction to Experimental Design
PSC	5323	Seminar in Political Theory and Methodology

Journalism Electives — 12 sem. hrs.

Students must complete twelve hours of graduate journalism courses, taken under advisement.

JOU	4325	Advanced Editing
JOU	4350	Mass Media and Popular Culture
JOU	4340	Writing and Editing On-Line Media
JOU	4359	History of Photography
JOU	4371	Public Relations Media Programming
JOU	4368	Advanced Public Relations
JOU	4398	Public Affairs Reporting
JOU	4380	Law and Ethics of Journalism (if not taken as an undergrad)
JOU	4V80	Radford Seminar (limit twice for total 6 hrs)
JOU	5300	International Journalism
JOU	5350	Seminar in Mass Communication: May be repeated with different topic.
JOU	5389	Practicum in Journalism
JOU	5V90	Independent Study in Mass Communication

Minor Concentration 6 sem. hrs.

Public Relations Concentration

Such as:

JOU	4371	Public Relations Media Programming
JOU	4368	Advanced Public Relations
JOU	5V90	Independent Study in Mass Communication
JOU	4V95	Special Studies

News Ed Concentration

Such as:

JOU	4325	Advanced Editing
JOU	4340	Writing and Editing On-Line Media
JOU	4359	History of Photography
JOU	4398	Public Affairs Reporting
JOU	5V90	Independent Study in Mass Communication
JOU	4V95	Special Studies

Advertising Concentration

Such as:

JOU	4368	Advanced Public Relations
JOU	5V90	Independent Study in Mass Communication
JOU	4V95	Special Studies

Critical Studies

Such as:

JOU	4V95	Special Studies: Gender, Race and Media
HIS	5362	Women's Suffrage Movement (Cross-listed as AMS 5362)
CSS	4396	American Rhetoric
JOU	5V90	Independent Study in Mass Communication
JOU	4V95	Special Studies

MASTER OF INTERNATIONAL JOURNALISM

The Master of International Journalism (M.I.J.) is an interdisciplinary degree program designed for those who wish to prepare for careers in foreign correspondence or in international mass media.

Admission

For admission to the program, applicants must meet the general requirements set forth by the Graduate School. Further, applicants will be evaluated for admission on the basis of practical experience in journalism, or undergraduate formal course work in journalism, or a combination of the two. Some applicants with majors in the sciences, humanities, and fine arts may also be considered. The GRE General Test is required.

Requirements

The Master of International Journalism degree is a professional journalism degree, multidisciplinary in nature, requiring thirty-six semester hours of course work and an internship. No thesis is required. The M.I.J. student must have a suitable portfolio of work approved by the graduate faculty, prior to graduation. Candidacy is determined by the satisfactory completion of the portfolio, thirty hours of course work, and reading and spoken proficiency (intermediate level) in at least one language other than English. Students must demonstrate this proficiency by passing an examination administered by the Department of Modern Foreign Languages. Students whose native language is not English may use English as their foreign language, meeting the requirement set forth by the Department of Modern Foreign Languages. Students in the program who do not have bachelor's degrees in journalism will either take nine hours of leveling courses, determined by the department, or pass placement examinations meeting department requirements.

Journalism Core 9 sem. hrs.

JOU	5310	Research Methods in Mass Communication
JOU	5320	Theory of Mass Communication
JOU	5350	Topic: International Journalism

Secondary Core 9 sem. hrs.
ECO 5338 Seminar in World Economic Systems

International Issue Course
3 hours under advisement

Area Study
3 hours under advisement

Graduate-level Electives 12 sem. hrs.

Electives may be taken from journalism and allied fields, permitting the student to specialize in one international discipline such as economics, environmental studies, or political science, or in a combination of graduate courses in other disciplines with approval of the Graduate Program Director.

Internship 6 sem. hrs.
JOU 5V01 International Journalism Internship

Total **36 sem. hrs.**

LATIN AMERICAN STUDIES

Director: Lizbeth Souza-Fuertes

The graduate program in Latin American studies is offered as a minor in the M.A. and the Ph.D. programs. Prerequisites for graduate study are intermediate level proficiency in Spanish or Portuguese or another language needed for research and acceptance into the graduate program in a field for which the Latin American area is a suitable minor. The GRE General Test is required.

The student, with the advice of the director of the Latin American studies program, will select courses from those listed below.

Courses available for a minor in Latin American Studies are as follows:

ECO 4332	Economic Problems of Latin America
HIS 4357	Inter-American Relations
LAS 4350	Latin American Studies Seminar
LAS 4390	Advanced Reading and Research/Latin American Studies
PHI 4331	Latin American Philosophy
SPA 4376	The Spanish-American Novel
SPA 4377	Contemporary Spanish-American Novel

DEPARTMENT OF MATHEMATICS

Chairperson: Lance Littlejohn
Graduate Program Director: Mark Sepanski

The Department of Mathematics offers the Master of Science and the Doctor of Philosophy degrees.

Admission

The minimum requirements for beginning graduate work in either the Master of Science or the Doctor of Philosophy degree is twenty-seven semester hours of approved mathematics. The GRE General Test is required of all applicants.

Application

The application procedure including the online application is described in the Admissions section under General Information of this catalog. The Department of Mathematics does not require any special material from the applicant.

Financial Support

The Department of Mathematics offers Graduate Teaching Assistantships to selected students. An assistantship provides a stipend at a competitive level and tuition remission for up to nine hours per semester. Support for one summer session is usually available. Graduate Assistants normally work as tutors, grade papers, or teach one course. An application to the graduate program in mathematics is also considered an application for an assistantship.

More information concerning the graduate programs in mathematics is available at www.baylor.edu/Math/.

MASTER OF SCIENCE

Thirty-three semester hours of approved graduate courses are required for the MS degree in mathematics (see below). In addition, one comprehensive exam must be passed: either one Qualifying Exam (as listed under the Doctor of Philosophy requirements) or a comprehensive exam given by the Department of Mathematics. No foreign language is required for the Master of Science degree.

Required Courses		12 sem. hrs.
MTH 5310	Advanced Abstract Algebra I	
MTH 5323	Theory of Functions of Real Variables I	
MTH 5350	Complex Analysis	
MTH 5330	Topology	

Electives 21 sem. hrs.

Any 4000 level or higher MTH course carrying graduate credit, any 5000 level STA course, or other graduate electives only as approved by the Department of Mathematics.

Total **33 sem. hrs.**

DOCTOR OF PHILOSOPHY

Seventy-two semester hours of approved graduate courses are required for the Ph.D. degree in mathematics (see below). Other requirements include passing a Qualifying Exam in two of the four year-long core areas (abstract algebra, applied mathematics, real variables, and topology), passing a Preliminary Examination administered by a committee headed by the student's dissertation advisor, and a successful defense of a dissertation. No foreign language is required for the Ph.D. degree.

Core Curriculum

Required Courses		21 sem. hrs.
MTH 5310	Advanced Abstract Algebra I	
MTH 5323	Theory of Functions of Real Variables I	
MTH 5330	Topology	
MTH 5350	Complex Analysis	

Choose 3 courses from the following:

MTH 5311	Advanced Abstract Algebra II	
MTH 5324	Theory of Functions of Real Variables II	
MTH 5331	Algebraic Topology I	
MTH 5360	Applied Mathematics I	
MTH 5361	Applied Mathematics II	

Students must earn a grade of B or better in each of the seven core courses.

Dissertation 12 sem. hrs.
MTH 6V99

Electives 39 sem. hrs.

Any 4000-level MTH course carrying graduate credit or higher, any 5000-level or higher STA course, or other graduate electives only as approved by the Department of Mathematics.

Total **72 sem. hrs.**

DEPARTMENT OF MUSEUM STUDIES

Chairperson: Kenneth C. Hafertepe
Graduate Program Director: Julie L. Holcomb

The Department of Museum Studies offers a Master of Arts degree in museum studies. The program consists of thirty-six semester hours, including six hours of internship, professional project, or thesis.

Admission

New students are admitted for the fall semester only. An applicant for the master's degree in museum studies should have a baccalaureate degree, documentation of courses taken and GPA earned

in previous college or university study, and internship experience in a museum, gallery, historic site, or archive. Applications are considered on a rolling basis until the class is filled. Students wishing to be considered for a graduate assistantship, which is the principle form of financial aid in the department, should have their applications complete by February 15. The application consists of transcripts from all undergraduate and graduate institutions, completion of the Graduate Record Examination (GRE), three letters of recommendation, and a personal statement explaining their interest in museums and museum studies, and why they are a good fit for Baylor. Letters of recommendation must include two letters from academic references and one letter from a professional reference. The admissions committee looks carefully at academic credentials, but is also interested in previous experiences that show familiarity with and aptitude for museums and the museum profession. Professional experience may include summer internships or volunteer assignments in a museum or related institution; it does not have to be a full-time position. If you lack such experience in a museum, we suggest you take some time to gain such experience before submitting an application to the program. Under certain circumstances, students who do not meet all requirements may be admitted into the program on probation and may be required to take undergraduate leveling courses before formal admittance to the program.

Requirements

Thirty-six semester hours, including MST 5301, 5304, 5309, 5311, 5340, and a minimum of six semester hours of internship, professional project, or thesis are required for the degree. All students in either the thesis or non-thesis program are required to take a written comprehensive examination. Thesis students will also have an oral examination representing defense of the thesis. Up to six semester hours of graduate study in museum studies or a cognate field may be transferred from another accredited institution with the approval of both the Department of Museum Studies and the Graduate School. Prospective students are encouraged to have a pre-admission interview.

ACA-Approved Courses

The Academy of Certified Archivists has created a Graduate Course Preapproval Program to evaluate graduate-level archival courses. Courses that have been preapproved by the ACA will count toward the 9 semester hours of credit required to take the ACA exam under the provisional option. The following Museum Studies courses have been preapproved by the ACA: MST 5304, 5311, 5312, 5324, 5326, and 5333.

MINOR IN MUSEUM STUDIES

The Department also offers a minor in museum studies for those in cognate fields who would like to gain insight into the mission, management, operation, and use of museums, or to prepare those interested in serving as museum trustees. The minor requires nine semester hours including MST 5301.

SCHOOL OF MUSIC

Graduate Program Director: Timothy R. McKinney

Accreditation

The School of Music graduate programs are accredited by the National Association of Schools of Music.

Graduate Degrees in Music

Graduate programs in music at Baylor University are designed to bring students to the highest levels of performance and scholarship of which they are capable. The graduate faculty of the School of Music is comprised of individuals who have distinguished themselves in their chosen disciplines and who maintain active performance, research, and other professional interests. Graduates from Baylor's School of Music hold positions in orchestras, opera companies, churches, universities and colleges, and conservatories, and other venues throughout the world. Assistantships are available in many performance and academic areas to enable students of superior ability to pursue a quality education in music at Baylor.

Graduates of recognized four-year courses leading to a bachelor's degree in music may become candidates for the Master of Music degree. Students desiring to become candidates for the degree must have the equivalent of the undergraduate major in music at Baylor University in the field of concentration in which they wish to continue. Those who lack courses prerequisite to graduate study may make up the undergraduate work, for which graduate credit may be granted, provided the course work is at the 4000 level and appropriate to the degree program. All students will take music theory and music history diagnostic examinations. Certain majors, including Vocal Performance, Choral Conducting, Collaborative Piano, and the Vocal Performance Concentration of Church Music, require additional diagnostic exams in Diction. Appropriate remedial course work may be required.

Admission

Applicants for degrees with emphasis in performance, collaborative piano, piano pedagogy, or the performance option of church music must audition (in person or submit a video recording of a recent performance) with repertoire of at least senior recital level. A repertoire list must be submitted for evaluation at the time of the audition. Applicants for the major in composition or the composition option in church music must submit a portfolio of recently completed compositions. An example of a recent paper is required of applicants who intend to pursue an emphasis in musicology, church music, or music theory. Applicants seeking admission to the conducting program must submit a video of their work in both rehearsal and performance. Papers, composition portfolios, videos, and audio recordings should be submitted to the School of Music. To request an audition and/or submit materials, please go to the School of Music's website: http://www.baylor.edu/music/index.php?id=863865.

The Graduate Record Examination General Test (GRE) is required of applicants in musicology and music theory; the GRE General Test is not required of church music, composition, conducting, performance, piano pedagogy and performance, or collaborative piano majors.

Applicants in musicology must possess intermediate proficiency in German or French (see Graduate School Language Requirement).

Summer Applied Lessons

Applied music courses are only open in summer sessions to MM, MDiv/MM, DMA, and PhD students in their primary applied concentration and only with the approval of the Associate Dean for Academic Affairs.

Special Requirements for Master's Degrees

The normal time for completion of the requirements for the degree ranges from two semesters and two summers to four semesters. A minimum of thirty semester hours is required. No correspondence work may be counted for graduate credit.

Enrollment in an ensemble, as assigned by the conducting faculty, is required throughout the term of residence. Ensemble participation is not required of Piano Performance majors or Collaborative Piano majors. Students in piano pedagogy may fulfill the ensemble requirement through enrollment in two semesters of Studio Collaborative Piano (MUS 5036), Piano Ensemble, or Chamber Music. Organ performance majors will fulfill the ensemble requirement through enrollment in two semesters of a choral ensemble.

All candidates for a master's degree must pass a comprehensive oral examination.

Students who desire to pursue a double major (e.g., Music Theory and Piano Performance) must fulfill all application requirements for and be accepted by both areas. An additional 15-18 credit hours will be required to complete the major in the second area (the number of hours depends upon the majors chosen). Except for the core course requirements of 9 credit hours, no courses can be credited toward degree requirements in both areas (e.g., a recital in Piano Pedagogy and Performance cannot be used to fulfill degree requirements in Piano Performance).

MASTER OF MUSIC

The Master of Music degree is offered in the School of Music with majors in church music, composition, conducting, musicology, music theory, performance, collaborative piano, and piano pedagogy and performance.

The core of study for all Master of Music degrees is as follows:

Core Courses		**9 sem. hrs.**
MUS 5302	Analytical Techniques	
MUS 5320	Research Methods and Bibliography	
MUS 5321	Seminar in the Middle Ages	
or		
MUS 5322	Seminar in the Renaissance Era	
or		
MUS 5323	Seminar in the Baroque Era	
or		
MUS 5325	Seminar in the Classic Era	
or		
MUS 5326	Seminar in the Romantic Era	
or		
MUS 5328	Seminar in Music of World War I to the Present	

Major in Church Music

Required Courses for all Church Music Majors **sem. hrs.**

Core Courses **9**

Church Music Core (17 hours; take one course in each category)

Congregational Song 3
4374 Song of the Church (required)*
5353 Congregational Song in Global Perspective
5357 Congregational Song in Historical Perspective
5346 Leading the Church's Song

Worship 3
4373 Worship in the Church (required)*
5349 Perspectives on Worship
5352 Worship in Global Perspective
5347 Liturgical Traditions
5350 Resources for Worship

Leadership/Administration 3
4375 Leadership in Music Ministry
5345 Leadership for Ministry
5354 The Business of Ministry

Vocal/Choral 3
5342 Choral/Vocal Music in the Church
5351 Sacred Choral Literature

Conducting 2
4261 Advanced Choral Conducting
4259 Foundations of Graduate Conducting

Elective 3
3-hour elective in Church Music

*Students who had an equivalent course in their undergradute degree may choose one of the other options upon the approval of the Church Music faculty and Graduate Program Director.

Concentration Courses (10 hours)

Option A: Church Ministry
Additional courses drawn from the Church Music core 6
Applied 2
General electives in music 2

Option B: Composition
Composition* 6
5170 Graduate Recital** 1
General electives in music 3
**Choose from 4203, 5207, 5208, 5209, and 5V89.*
***The recital may consist of a concert format or a presentation of original compositions within a service*

Option C: Conducting
Conducting and Choral literature* 6
5141 Performance Document 1
5170 Graduate Recital 1
General electives in music 2
**Choose from MUS 4260, 4261, 4262, 5270, and 4337.*

To be admitted to the program, the candidate must submit a video of conducting that will be evaluated by the conducting and church music faculties.

For the conducting project, the student will assemble a choir. In consultation with the church music faculty and the appropriate conducting faculty, the student will select repertoire that reflects the music from a variety of styles and periods. Approximately six anthems will be prepared and presented. The repertoire will be prepared under the supervision of the church music and choral conducting faculties. The document, which will be related to the repertoire of the concert or service, will be written under the supervision of the church music faculty.

Option D: Performance

Applied Major	8
5141 Performance Document	1
5170 Graduate Recital	1

Piano proficiency of level IVs required for vocal, instrumental, or organ emphasis, and level VIIs for piano emphasis.

In the vocal and organ emphases the recital will consist primarily of sacred music; a collaborative and/or solo recital will be acceptable for a piano emphasis.

The document that accompanies the recital will be supervised by the church music faculty.

Option E: Thesis

5V99 Thesis	3
Applied	2
Additional courses drawn from the Church Music core	3
General electives in music	2

After the completion of applied study, students are required to present a performance project (representative program of works appropriate for church in the student's performance medium) to the church music faculty.

Major in Composition

		sem. hrs.
Core Courses		**9**
MUS 4203	Electronic Studio	2
MUS 5207	Graduate Composition I	2
MUS 5208	Graduate Composition II	2
MUS 5209	Graduate Composition III	2
MUS 5328	Seminar in Music of World War I to the Present	3
MUS 5355	Analysis Seminar	3
MUS 5V99	Thesis	3
Electives		4
Total Hours		**30**

Major in Conducting

		sem. hrs.
Core Courses		**9**
MUS 4260	Orchestral Conducting	2
MUS 4261	Choral Conducting	2
MUS 4262	Band Conducting	2
MUS 5265	Orchestral Conducting Performance Practicum	
or		
MUS 5266	Choral Conducting Performance Practicum	
or		
MUS 5267	Band Conducting Performance Practicum	2
MUS 5270	Applied Conducting	4
MUS 4321	Symphonic Literature	
or		
MUS 5337	Choral Literature	
or		
MUS 4331	Band Literature	3
Electives		6
Total Hours		**30**

Major in Musicology		**sem. hrs.**
Core Courses		**9**
Two additional Musicology Seminars from those listed in the core requirements		6
MUS 5329	Foundations and Trends in Musicology	3
MUS 5319	Foundations and Trends in Ethnomusicology	3
MUS 5V99	Thesis	3
Applied Music		3
Electives*		3
Enrollment in MUS 5010 (Academic Division Colloquium) is required for every term in residence.		
Total Hours		**30**

**Chosen in consultation with the student's advisor in support of thesis research. Piano proficiency of level VIs or two semesters of piano with a minimum grade of "B" is required.*

Major in Music Theory		**sem. hrs.**
Core Courses		**9**
MUS 5201	Pedagogy of Theory	2
MUS 5301	History of Music Theory	3
MUS 5328	The Twentieth Century	3
MUS 5355	Analysis Seminar (two semesters)	6
MUS 5V99	Thesis	3
Electives		4
Enrollment in MUS 5010 (Academic Division Colloquium) is required for every term in residence.		
Total Hours		**30**

Supportive courses in music literature, music theory, composition, or applied music to total a minimum of thirty hours. Piano proficiency of level VIIIs or two semesters of piano with a minimum grade of "B" is required.

Major in Performance (Offered in strings, woodwinds, brass, percussion, voice, piano, organ, harp)		**sem. hrs.**
Core Courses		**9**
Applied Major		12
MUS 5170	Graduate Recital (two required, one sem. hr. each)	2
Supportive courses chosen from music literature, music theory, pedagogy of major area* or applied music**		7
Total Hours		**30**

**Instrumental students must take one of the following courses appropriate to their major performance area: MUS 4333, 4334, 4335, or 4336.*

***A maximum of four semester hours of applied music is permitted among the supportive courses.*

One of the recitals may be a lecture-recital, a performance with chamber ensemble, an accompaniment of a major performance, or a major opera role at the discretion of the student's graduate committee. The recitals will consist of repertoire learned while the student is in residence for the degree. The student must be enrolled for applied music during the term in which a recital is given. If the recitals are not given before the twelve hours of applied music concentration are completed, the student must continue with applied study.

Major in Collaborative Piano		**sem. hrs.**
Core Courses		**9**
MUS 5252, 5253	Seminar in Vocal Collaboration I, II	4
MUS 5254, 5255	Seminar in Instrumental Collaboration I, II	4
MUS 5170	Graduate Recital (two recitals equally representing vocal and instrumental repertoire)	2
MUS 51K5	Collaborative Piano (one sem. hr. each semester)*	4

MUS 51K1	Graduate Piano (applied lessons one sem. hr. each semester)*	4
Electives**		3
Total Hours		**30**

**Collaborative Piano (collaborative repertoire/private coaching) will alternate, one hour per week with Graduate Piano (applied lessons).*
***Select from MUS 4325, 4327, 4329, 4334, 4335, 4336, or 5V89.*

Major in Piano Pedagogy and Performance		**sem. hrs.**
Core Courses		**9**
MUS 4315, 4316	Advanced Piano Pedagogy and Practicum I, II	6
MUS 5170	Graduate Recital	1
MUS 52K1	Graduate Piano	8
MUS 5116	Research Project in Piano Pedagogy	2
Electives*		4
Total Hours		**30**

**Select from MUS 4322, 4324, 4V13, 5114, 5115, 5201, 5252, 5253, 5254, 5255, Organ, or Harpsichord.*

DOCTORAL DEGREES IN CHURCH MUSIC

The School of Music offers courses of study leading to the Doctor of Philosophy in church music and the Doctor of Musical Arts in church music.

Doctoral degrees in church music

Admission Requirements

Applicants must have earned a master's degree in music from an accredited college or university. Applicants are encouraged to have significant prior professional experience in the field of music. At least two years of full-time employment or the equivalent in part-time and/or volunteer work is recommended.

Prospective students must submit official GRE scores. The GRE must have been taken within five years of the application for admission. Normal expectations for PhD students are a combined Verbal/Quantitative score of at least 300, with a minimum Verbal score of 153; expectations for DMA students are a combined score of at least 297, with a minimum Verbal score of 152.

Students from non-English speaking countries must take the Test Of English as a Foreign Language and submit a minimum score of 600 (250 computer-based, 100 internet-based). (Comparable scores on the IELTS or PTE exams may also be submitted.) Applicants also must submit a master's thesis or significant research paper as a writing sample. The research paper may take the form of a published book or article, a major paper for a master's-level course, or a paper written specifically to fulfill this requirement. The writing sample must demonstrate familiarity with appropriate research techniques, originality of thought, and ability to write with clarity.

Applicants will have a face-to-face interview with the Church Music faculty. The applicant should prepare a curriculum vita for the interview that includes all relevant academic and professional experience as well as goals and plans for the future. Prospective DMA students must audition for and be accepted by the Church Music and applied faculties in their area of performance. No audition is required for PhD applicants.

Three letters of recommendation are required. At least one should be from a person qualified to comment on the applicant's master's degree work, and at least one should be from a person who can speak to the applicant's music activity in a local congregation.

Diagnostic examinations in music history, music theory, conducting, voice, and piano will be administered to each student.

Curriculum for the Doctor of Philosophy in church music

Required for all students:		
MUS 6341	Introduction to Research in Church Music	3
MUS 6348	Professional Development and Teaching Practicum	3
Church Music Seminars (choose 5 of the 6)		15
MUS 6342	Research in Congregational Song	
MUS 6343	Research in Church Music History	
MUS 6344	Research in Church Music Philosophy	
MUS 6345	Research in Christian Worship	

MUS	6346	Research in Music Ministry	
MUS	6347	Research in Sacred Choral Music	
Musicology and/or Music Theory			6
Select from MUS 5321-5328, MUS 5329, MUS 5319, MUS 5355, MUS 5201, MUS 5301, MUS 5V89			
Minor Area			12
Nine hours of 5000-level or above course work must be taken in a single field of study other than Church Music. The remaining three hours are electives that may be taken in any field.			
MUS 6V99 Dissertation			9
Total Hours			**48**

Curriculum for the Doctor of Musical Arts in church music

Required for all students:			
MUS	6341	Introduction to Research in Church Music	3
MUS	6348	Professional Development and Teaching Practicum	3
Church Music Seminars (choose 5 of the 6)			15
MUS	6342	Research in Congregational Song	
MUS	6343	Research in Church Music History	
MUS	6344	Research in Church Music Philosophy	
MUS	6345	Research in Christian Worship	
MUS	6346	Research in Music Ministry	
MUS	6347	Research in Sacred Choral Music	
Musicology and/or Music Theory			6
Select from MUS 5321-5328, MUS 5329, MUS 5319, MUS 5355, MUS 5201, MUS 5301, MUS 5V89			
Applied Music			16
MUS	6V10	Doctoral Performance Document (accompanying 2nd recital)	3
MUS	5170	Recitals (2)	2
Total Hours			**48**

ADVANCED PERFORMERS CERTIFICATE PROGRAM
(Piano or Organ)

The Advanced Performers Certificate is intended for students who demonstrate the potential to establish a career as a performing artist. Accordingly, the goals of this non-degree program are more narrowly focused than traditional graduate performance degrees. The requirements for the Advanced Performers Certificate Program are designed for students who have demonstrated the ability to perform advanced repertoire and whose artistic communication and technical mastery of major repertoire for the instrument are unusually strong.

It is expected that the student applying for admission to the program will have completed a Bachelor of Music degree or its equivalent from a recognized institution. Those applying for admission to the Advanced Performers Certificate Program must follow the procedures and regulations of other students applying for acceptance to the Graduate Division of the School of Music. (GRE not required)

Admission

Upon recommendation of the faculty of the Keyboard Division, a student may be accepted to the Advanced Performers Certificate Program. Admission will require a live audition before a committee that will include at least four members of the Keyboard Division faculty appointed by the Director of Keyboard Studies and the Graduate Program Director in Music. The option of a video performance may be approved when distance to the audition would be a hardship. When the audition is by video, the student must present a live audition before a designated faculty committee during the first semester of residence in order to be fully accepted into the program.

The audition will require sixty minutes of solo repertoire representing the 18th, 19th, and 20th centuries and will include at least two major works and two virtuoso etudes from the literature. The audition committee may choose from the repertoire prepared.

Students who have been admitted to the Advanced Performers Certificate Program will be advised on course content by the Graduate Program Director in Music in consultation with the major teacher and the Director of Keyboard Studies.

Assessment of Progress in the Program

Students will be required to maintain a 3.0 GPA to remain in the program. Recitals must receive a grade of A- to be passed. A committee consisting of four Keyboard Division faculty, one faculty member from another applied division, and the Graduate Program Director in Music will grade the required recitals.

A probationary semester will be granted when a student's GPA falls below the required GPA. Students placed on probationary status will be evaluated yearly by the Dean of the School of Music, the major teacher involved, and any members of the Keyboard Division faculty assigned by the Dean.

Residency Requirements

All course requirements for the Advanced Performers Certificate Program must be completed in residence at Baylor University. The student may complete the credit requirements in four regular Fall-Spring semesters or may distribute the semester hours over four regular Fall-Spring semesters and two summer terms. The minimum time allowed to complete the requirements is two years and the maximum is three years.

Language Requirement

All international students whose first language is not English must achieve a TOEFL score of 550 (213 computer based or 80 Internet based) to be admitted to the Advanced Performers Certificate Program.

Curriculum

Course Requirements	**32 sem. hrs.**
Applied Major	20
MUEN 5136* Includes two full-length collaborative recitals	4
Music Courses*	6
MUS 5170 Two solo recitals	2

**Select literature, pedagogy, music history or music theory courses appropriate to the area and for which the student is qualified.*

Additional courses not included in the program curriculum may be added upon consultation with the Graduate Program Director in Music, the major teacher, and the Director of Keyboard Studies. Added courses will not be counted toward the requirement.

JOINT MASTER OF DIVINITY/ MASTER OF MUSIC

The Master of Divinity degree is designed primarily for students preparing for pastoral ministry, though it also provides preparation for other specialized ministries. The Master of Music degree in church music is a professional graduate degree for those who plan to serve in the music ministry. The degree is designed to develop proficiency in performance, a knowledge of church music (including music history, music theory and conducting), and an understanding of the theological context of church music and the administration of a church music program.

Admission

Students seeking admission to the joint degree program will be required to fulfill admission requirements to the George W. Truett Theological Seminary, the Graduate School, and the School of Music. Students must apply and be admitted to each of the programs. Upon commencing seminary studies, the student may enroll in courses in both programs.

Requirements

Students will complete sixty semester hours of the theological education core, ten hours of music concentration courses, seven hours of elective, and sixteen hours of Master of Music courses to satisfy requirements for the Master of Divinity. To complete requirements for the Master of Music degree, an additional fifteen semester hours will be taken from the Church Music degree program in one of the following five options: Thesis, Performance, Conducting, Church Ministry, or Composition. Since both degrees are awarded simultaneously, all requirements in both schools must be completed in order to receive either degree. Students who were not church music majors in their undergraduate degree will be required to take MUS 4373 Worship in the Church or THEO 7316 Christian Worship, MUS 4374 Song of the Church, and MUS 5243 Church Music Ministry or do equivalent study as prerequisites to the graduate courses.

I. Theological Education Core Courses **60 sem. hrs.**

Introductory Courses*

THEO	7340	Introduction to Christian Scriptures
THEO	7343	Introduction to Christian History
THEO	7345	Introduction to Christian Theology

Christian Scriptures

THEO	7370	Christian Scriptures 1
THEO	7372	Christian Scriptures 2
THEO	7371	Christian Scriptures 3
THEO	7373	Christian Scriptures 4

Christian Theology

THEO	7360	Christian Texts and Traditions 1
THEO	7361	Christian Texts and Traditions 2
THEO	7362	Christian Texts and Traditions 3
THEO	7382	Constructive Theology
THEO	7396	Baptist Identity

Christian Ministry

LEAD	7301	Leadership for Ministry
PRCH	7316	Preaching 1
PRTH	7391	Integrative Seminar
MENT	7V00	Mentoring in Ministry (9 hours)
THEO	7316	Christian Worship
WOCW	7385	Intro to Christian Witness and Mission

***These are required courses; however, based upon previous academic experience, students may petition to waive or substitute these courses. Introductory courses are waived from the degree plan by passing an advanced standing exam.**

II. Music Concentration Courses **10 sem. hrs.**

Required Courses

THEO	7290	Worship in the Church
THEO	7291	Congregational Song
THEO	7292	Seminar in Music Ministry
THEO	7293	Choral/Vocal Music Ministries in the Church

Select one course from the following:

THEO	7294	History of American Church Music
THEO	7295	Turning Points in Church Music
THEO	7296	Comparative Liturgies

III. Theology, World Christianity, Leadership or Pastoral Studies Elective **7 sem. hrs.**

IV. Master of Music Courses **16 sem. hrs.**

These courses are credited toward the Master of Divinity degree upon the successful completion of the Master of Music degree.

Core Courses		9 sem. hrs.
Electives		7 sem. hrs.
MUS	5037	Church Music Forum (4 semesters)

Ensemble (4 semesters)

V. Covenant Group – 4 semesters

VI. Satisfactory completion of 200 Lifelong Learning Units.

Total **93 sem. hrs.**

VIII. Ten hours of Master of Divinity credits are accepted toward the Master of Music degree upon the successful completion of the Master of Divinity degree.

IX. The Master of Music degree requires an additional fifteen hours of Music School courses selected from one of the five options below:

Option A: Thesis			**sem. hrs.**
MUS	4261	Choral Conducting	2
MUS	5V99	Thesis	3
Applied			4
Electives			6

After the completion of applied study, students are required to present a performance project (representative program of works appropriate for church in the student's performance medium) to the church music faculty.

Option B. Performance			**sem. hrs.**
Conducting (4260, 4261, or 4262)			2
Applied			8
MUS	5170	Graduate Recital	1
MUS	5141	Performance Document	1
Electives			3

Piano proficiency of level IVs is required for vocal, instrumental, and organ emphasis areas, level VIIs for piano emphasis. In the vocal and organ emphasis areas the recital will consist primarily of sacred music; a collaborative and/or solo recital will be acceptable for a piano emphasis. The document that accompanies the recital (MUS 5141) will be supervised by the church music faculty in cooperation with the appropriate applied faculty member(s).

Option C: Conducting			**sem. hrs.**
Conducting*			6
MUS	4337	Choral Literature	3
MUS	5170	Graduate Recital	1
MUS	5141	Performance Document	1
Electives			4

**Courses to be selected from MUS 4260, 4261, 4262, and 5270.*

To be admitted to the conducting option the candidate must submit a video of conducting which will be evaluated by the conducting and church music faculties. For the conducting project (MUS 5170) the student will assemble a choir. In consultation with the church music faculty and appropriate conducting faculty, the student will select repertoire that reflects music from a variety of styles and periods. Approximately six anthems will be prepared under the supervision of the church music and choral conducting faculties. The document (MUS 5141), which will be related to the repertoire of the concert or service, will be written under the supervision of the church music faculty.

Option D: Church Ministry			**sem. hrs.**
MUS	5244*	History of American Church Music	
MUS	5245*	Turning Points in Church Music	
MUS	5246*	Comparative Liturgies	4
Applied			2
Conducting (4260, 4261, or 4262)			2
Electives			7

*The student will take the two courses not taken as THEO 7294, 7295, or 7296.

Option E: Composition			**sem. hrs.**
Composition*			6
MUS	5170	Recital	1
Conducting (4260, 4261, or 4262)			2
Electives			6

*Courses to be selected from MUS 4203, 5207, 5208, 5209, or 5V89.

Total	**108 sem. hrs.**

LOUISE HERRINGTON SCHOOL OF NURSING

DNP Program Director: Dr. Kristi Feutz
MSN Program Coordinator: Dr. Marie Lindley

The Louise Herrington School of Nursing offers a Master of Science in Nursing degree with a major in Leadership and Innovation and a Doctor of Nursing Practice with majors in Family Nurse Practitioner (FNP), Neonatal Nurse Practitioner (NNP), and Nurse-Midwifery (NM).

Master of Science in Nursing

The Baylor University Louise Herrington School of Nursing MSN in Nursing Leadership and Innovation online program prepares graduates for management and leadership needs across the healthcare continuum including accute care services, outpatient services, and home health agencies and hospice.

The curriculum is 36 credit hours in length. Graduates are eligible to sit for national leadership certification examinations.

Admission Requirements for the Master of Science in Nursing Degree

- Graduate or undergraduate level inferential statistics course with grade of C or above
- BSN or MSN Degree from an accredited School of Nursing
- 3.0 cumulative GPA from most recent nursing degree
- Three professional letters of recommendation (One must be from an immediate supervisor and one must be from someone who has worked with the individual and can speak to their work performance.)
- Unencumbered Registered Nurse license
- Two years of full-time nursing practice
- Currently employed in nursing practice
- GRE is optional.

There is no foreign language requirement.

MSN Program Outcomes

1. Apply theoretical perspectives, scientific evidence, and visionary thinking to critically analyze and lead complex organizational systems and implement strategic and innovative change.
2. Use interpersonal, interprofessional and organizational communication and relationship building skills to create and lead highly functioning, reliable and healthy teams.
3. Combine business skills and principles, evidence-based practice, informatics and quality and safety strategies and metrics to lead care improvement processes, outcomes and systems.
4. Employ state, federal and global health policy(ies) to advocate for healthcare reform and improve health outcomes for all.
5. Model professionalism, integrity, faith-in-action, consistency and respect for differing viewpoints and with diverse populations.

Master of Science in Nursing

NUR 5280	Health Informatics & Innovations in Technology
NUR 5283	Ethics & Cultural Competence for Nurse Leaders
NUR 5287	Professionalism of the Exemplary Nurse Leader
NUR 5389	Financial Acumen for Nursing Leadership
NUR 5381	Visionary Leadership in Complex Organizational Systems
NUR 5382	Health Policy & Advocacy for the Nurse Leader
NUR 5384	Evidence Based Practice for Nurse Leaders
NUR 5385	Legal & Regulatory Requirements/Compliance
NUR 5386	Innovation in Clinical Prevention & Population Health
NUR 5388	Inter-professional Collaboration & Partnerships
NUR 5290	Innovations & Global Nursing Practice/Missions
NUR 5391	Quality Management & Safety in Nursing Practice
NUR 5V92	Residency for the Nurse Leader

Sample Curriculum Plan: MSN Fall Start

Year 1: Fall Semester **9 sem. hrs.**

NUR 5388 Inter-professional Collaboration and Partnerships
NUR 5389 Financial Acumen for Nursing Leadership
NUR 5386 Innovation in Clinical Prevention and Population Health

Year 1: Spring Semester **9 sem. hrs.**

NUR 5381 Visionary Leadership in Complex Organizational Systems
NUR 5382 Health Policy and Advocacy for the Nurse Leader
NUR 5384 Evidence Based Practice for Nurse Leaders

Year 1: Summer Semester **6 sem. hrs.**

NUR 5391 Quality Management and Safety in Nursing Practice
NUR 5385 Legal and Regulatory Requirements/Compliance

Year 2: Fall Semester **12 sem. hrs.**

NUR 5280 Health Informatics and Innovations in Technology
NUR 5283 Ethics and Cultural Competence for Nurse Leaders
NUR 5287 Professionalism of the Exemplary Nurse Leaders
NUR 5290 Innovations and Global Nursing Practice/Missions
NUR 5V92 Residency for the Nurse Leader (4 sem. hrs.)

Doctor of Nursing Practice

The Doctor of Nursing Practice (DNP) degree is a 75 credit hour curriculum with specialty tracks in Family Nurse Practitioner (FNP), Neonatal Nurse Practitioner (NNP), and Nurse-Midwifery (NM). Applicants who possess a Baccalaureate degree with a major in Nursing or a Master's degree with a major in Nursing and who are seeking a role change are eligible to apply for the BSN to DNP program. Applicants who completed an advanced practice master's degree in nursing and are not seeking a new role are eligible to apply for the Post Master's Doctor of Nursing Practice (DNP) degree. Full-time and Part-time degree plans are available.

Admission requirements for the Post Baccalaureate to Doctor of Nursing Practice Degree.

For admission to the BSN to DNP program, applicants must meet the general requirements set forth by the Graduate School and the Louise Herrington School of Nursing. Application process for BSN to DNP:

Admissions criteria for BSN to DNP at the time of application**:**

1. Completed BSN with a nursing GPA of 3.0 or higher
2. Experience:
   NM- 1 year experience in Labor and Delivery, outpatient or Mother/baby
   FNP- 1-year nursing experience
   NNP- 1-year experience in a level III NICU
3. Unencumbered and current RN license
4. Three acceptable letters of recommendation (one from an immediate supervisor, one from a peer nurse, one from an MSN-, DNP-, or Ph.D.-prepared nurse)
5. Acceptable writing sample
6. Completion of a Graduate Statistics course achieving a grade of B or higher prior to matriculation

There is no foreign language requirement.

DNP Program Outcomes:

1. Synthesize scientific evidence and methods to design, direct, and evaluate strategies to promote effective patient-centered care.
2. Incorporate leadership skills and interprofessional team building strategies to improve quality metrics within health care systems, organizations, and diverse practice settings.
3. Employ information systems and technology in the delivery of transformative health care.
4. Advocate for evidence-based health policy to improve local, national, and/or global patient and health population outcomes.
5. Utilize effective interprofessional communication and collaborative skills to facilitate improvement in population health.
6. Demonstrate advanced levels of clinical judgment and systems thinking in designing, delivering, and evaluating evidence-based care for clinical prevention and population health.
7. Integrate scientific knowledge with faith-in-action, incorporating culturally sensitive and diverse approaches to advanced nursing care.

FAMILY NURSE PRACTITIONER (FNP SPECIALTY TRACK), BSN TO DNP DEGREE

The Family Nurse Practitioner specialty track is a 75 credit hour graduate nursing curriculum to prepare registered nurses to deliver primary health care to clients of all ages focusing on underserved individuals from a variety of cultures. Emphasis is placed on health promotion, disease prevention, management of acute and chronic illnesses, and advanced skills. This is an online program with 3 required on-campus immersions. The program uses a variety of clinical experiences.

The program of study conforms to educational guidelines from the Texas Board of Nursing, the Essentials of Doctoral Education for Advanced Nursing Practice (AACN, 2006), the National Organization of Nurse Practitioner Faculties (NONPF), and Criteria for Evaluation of Nurse Practitioner Programs (NTF, 2016). Graduates of the program are eligible to sit for national Family Nurse Practitioner certification examinations offered by the American Nurses Credentialing Center (ANCC) and the American Association of Nurse Practitioners (AANP).

NEONATAL NURSE PRACTITIONER (NNP SPECIALTY TRACK), BSN TO DNP DEGREE

The Neonatal Nurse Practitioner specialty track is a 75 credit hour graduate nursing curriculum designed to prepare experienced registered nurses for advanced practice in neonatal nursing. The curriculum emphasizes advanced nursing care of newborns and infants from birth through the first two years of life. The spectrum of health from promotion of wellness to management of acute and chronic illness in a variety of settings is incorporated into the program. This online program with 2 required on-campus immersions, offers a variety of clinical experiences designed to provide students with hands-on, real-life experience as an Advanced Practice Neonatal Nurse with options for an international DNP project and mission opportunities.

The program of study conforms to educational guidelines from the Texas Board of Nursing, the Essentials of Doctoral Education for Advanced Nursing Practice (AACN, 2006), the National Association of Neonatal Nurses (NANN), and the National Organization of Nurse Practitioner Faculties (NONPF) and Criteria for the Evaluation of Nurse Practitioner Programs (NTF, 2016). Graduates of the program will be eligible to sit for national Neonatal Nurse Practitioner certification examination offered by the National Certification Corporation for the Obstetric, Gynecologic and Neonatal Nursing Specialties (NCC).

NURSE-MIDWIFERY (NM SPECIALTY TRACK), BSN TO DNP DEGREE

The Nurse-Midwifery specialty track is a 75 credit hour curriculum combining academic preparation with clinical skills for the independent management of health care of women and newborns. Students pursuing this degree are prepared to provide holistic and women-centered care of women throughout the lifespan using midwifery model of care. This is an online program with 6 required on-campus immersions. Our program is commited to the education of nurse-midwives in a unique Christian environment who are prepared to practice in concert with standards of nurse-midwifery practice. In addition, our program is committed to enrolling diverse and qualified students that pursue cultural competency and focus their service and clinical experiences caring for vulnerable populations. The role of the modern certified nurse-midwife encompasses clinical competency as well as professional responsibilities. Thus, the education program is committed to facilitating the adoption of the professional roles inherent in nurse-midwifery.

Graduates from the nurse-midwifery program are eligible to take the midwifery national certification examination offered by the American Midwifery Certification Board. The program of study conforms to educational guidelines from the Texas Board of Nursing, The Essentials of Doctoral Education for Advanced Nursing Practice (AACN, 2006) and the ACNM Accreditation Commission for Midwifery Education (ACME).

The Nurse-Midwifery Program is fully accredited by the ACNM Accreditation Commission for Midwifery Education (ACME)
8403 Colesville Road, Ste. 1550
Silver Spring, MD 20910-6374
Tel: 240-485-1802 www.midwife.org/accreditation
Email contact for ACME: Jaime Sampson, Administrative Assistant, jsampson@acnm.org.

DNP Advanced Nursing Practice Core:

NUR 5209 Theoretical Concepts for the Advanced Practice Registered Nurse
NUR 5211 Servant Leadership
NUR 5232 Advanced Human Pathophysiology I
NUR 5233 Advanced Human Pathophysiology II
NUR 5280 Health Informatics and Innovations in Technology
NUR 5312 Roles and Business of the APRN
NUR 5314 Scientific Inquiry
NUR 6316 Transforming Health Care Organizations and Changing Outcomes
NUR 5349 Global Healthcare & Missions
NUR 5351 Advanced Pharmacology
NUR 5370 Advanced Practice Nurse-Midwifery Residency
NUR 5452 Advanced Health Assessment
NUR 61C1 DNP Project I
NUR 62C2 DNP Project II
NUR 62C3 DNP Project III
NUR 62C4 DNP Project IV
NUR 6272 Applied Ethics for Advanced Practice Nursing
NUR 6373 Clinical Epidemiology
NUR 6375 Translational Science
NUR 6377 Policy Implications for Healthcare
NUR 6V76 Advanced Nursing Practice Residency

DNP/Family Nurse Practitioner Required Specialty Courses:

NUR 5153 Advanced Practice FNP I & NM I Primary Care Practicum
NUR 5250 Advanced Family Practice III/Low Resource Clinical
NUR 5251 Family Nurse Practitioner International Clinical
NUR 5255 Advanced FNP I and NM I Primary Care for APRN's
NUR 5356 Family Health Care Management II
NUR 5359 Advanced Family Practice II
NUR 5450 Family Nurse Practitioner Residency
NUR 5357 Family Health Care Management III
NUR 5300 Primary Care Pediatric Management for the FNP
NUR 5274 Women's Health Across the Lifespan

DNP/Neonatal Nurse Practitioner Required Specialty Courses:

NUR 5163 Advanced Assessment of the Newborn/Infant Practicum
NUR 5262 Advanced Assessment & Diagnosis of the Newborn/Infant
NUR 5266 Advanced Neonatal Nursing Practicum I
NUR 5360 Embryology and Developmental Physiology
NUR 5361 Advanced Newborn/Infant Pharmacotherapeutics
NUR 5363 Advanced Neonatal Nursing Practicum II
NUR 5365 Advanced Neonatal Nursing Management I: High-Risk & Critically Ill Newborns/ Infants
NUR 5367 Advanced Neonatal Nursing Management II: Acute & Chronic Problems of Newborns/Infants
NUR 5369 Advanced Neonatal Nursing Practicum III Residency
NUR 6300 The NICU Graduate
NUR 6369 Clinical Genetics in Practice

DNP/Nurse-Midwifery Specialty Required Courses:

NUR 5140 Professional Issues for Nurse Midwives
NUR 5153 Advanced Practice FNP I & NM I Primary Care Practicum
NUR 5255 Advanced FNP I & NM I Primary Care for the APRN's
NUR 5242 Nurse-Midwifery IIA: Women's Health
NUR 5243 Nurse-Midwifery IIB: Women's Health
NUR 5V43 Nurse-Midwifery II: Women's Health Practicum

NUR 5344 Nurse-Midwifery III: Care of the Childbearing Family
NUR 5345 Nurse-Midwifery III: Care of the Childbearing Family Practicum
NUR 5346 Nurse-Midwifery IV: High Risk Family
NUR 5248 Nurse-Midwifery IV: High Risk Family Practicum
NUR 5370 Advanced Practice Nurse-Midwifery Residency

Sample Curriculum Plan for DNP/Family Nurse Practitioner Specialty Track - Fall Start

Year 1: Fall Semester **9 sem. hrs.**
NUR 5209 Theoretical Concepts for the Advanced Practice Registered Nurse
NUR 5232 Advanced Human Pathophysiology I
NUR 5351 Advanced Pharmacology
NUR 5211 Servant Leadership
Year 1: Spring Semester **9 sem. hrs.**
NUR 5349 Global Healthcare & Missions
NUR 6316 Transforming Health Care Organizations and Changing Outcomes
NUR 5312 Advanced Practice Nursing Roles
Year 1: Summer Semester **7 sem. hrs.**
NUR 5314 Scientific Inquiry
NUR 6272 Applied Ethics for the APRN
NUR 5233 Advanced Human Pathophysiology II
Year 2: Fall Semester **7 sem. hrs.**
NUR 5452 Advanced Health Assessment/Promotion/Disease Prevention
NUR 6377 Policy Implications for Healthcare
Year 2: Spring Semester **6 sem. hrs.**
NUR 5255 Advanced FNP I & NM I Pirmary Care for the APRN's
NUR 5153 Advanced Practice FNP I & NM I Primary Care Practicum
NUR 6373 Clinical Epidemiology
Year 2: Summer Semester **9 sem. hrs.**
NUR 5356 Family Healthcare Management II
NUR 5359 Advanced Family Practice II
NUR 6375 Translational Science
Year 3: Fall Semester **9 sem. hrs.**
NUR 5300 Primary Care Pediatric Management for the FNP
NUR 5357 Family Healthcare Management III
NUR 5250 Advanced Family Practice III/Low Resource Clinical (choose 1)
NUR 5251 Family Nurse Practitioner International Clinical (choose 1)
NUR 61C1 DNP Project I
Year 3: Spring Semester **8 sem. hrs.**
NUR 5274 Women's Health Across the Lifespan
NUR 5450 Family Nurse Practitioner Residency
NUR 62C2 DNP Project II
Year 3: Summer Semester **6 sem. hrs.**
NUR 6V76 Advanced Practice Nursing Residency
NUR 5280 Health Informatics and Innovations in Technology
NUR 62C3 DNP Project III
Last Semester **5 sem. hrs.**
NUR 62C4 DNP Project IV
NUR 6V76 Advanced Practice Nursing Residency

Sample Curriculum Plan for DNP/Neonatal Nurse Practitioner Specialty Track - Fall Start

Year 1: Fall Semester **9 sem. hrs.**
NUR 5209 Theoretical Concepts for Advanced Practice Nursing
NUR 5232 Advanced Human Pathophysiology I
NUR 5211 Servant Leadership
NUR 5361 Advanced Newborn/Infant Pharmacotherapeutics
Year 1: Spring Semester **9 sem. hrs.**
NUR 5349 Global Healthcare & Missions
NUR 6316 Transforming Health Care Organizations and Changing Outcomes

NUR 5312 Advanced Practice Nursing Roles

Year 1: Summer Semester **7 sem. hrs.**
NUR 5314 Scientific Inquiry I
NUR 6272 Applied Ethics for the APRN
NUR 5233 Advanced Human Pathophysiology II

Year 2: Fall Semester **9 sem. hrs.**
NUR 6377 Policy Implications for Healthcare
NUR 5360 Embryology and Developmental Physiology
NUR 6300 The NICU Graduate

Year 2: Spring Semester **6 sem. hrs.**
NUR 6373 Clinical Epidemiology
NUR 5163 Advanced Assessment of the Newborn/Infant Practicum
NUR 5262 Advanced Assessment & Diagnosis of the Newborn/Infant

Year 2: Summer Semester **8 sem. hrs.**
NUR 6375 Translational Science
NUR 5365 Advanced Neonatal Nursing Management I
NUR 5266 Advanced Neonatal Nursing Practicum I

Year 3: Fall Semester **7 sem. hrs.**
NUR 5363 Advanced Neonatal Nursing Practicum II
NUR 5367 Advanced Neonatal Nursing Management II
NUR 61C1 DNP Project I

Year 3: Spring Semester **8 sem. hrs.**
NUR 6369 Clinical Genetics in Practice
NUR 5369 Advanced Neonatal Nursing Practicum III
NUR 62C2 DNP Project II

Year 3: Summer Semester **7 sem. hrs.**
NUR 5280 Health Informatics and Innovations in Technology
NUR 6V76 Advanced Practice Nursing Residency
NUR 62C3 DNP Project III

Last Semester **5 sem. hrs.**
NUR 6V76 Advanced Practice Nursing Residency
NUR 62C4 DNP Project IV

Sample Curriculum Plan for DNP/Nurse-Midwifery Specialty Track - Fall Start

Year 1: Fall Semester **9 sem. hrs.**
NUR 5209 Theoretical Concepts for the Advanced Practice Registered Nurse
NUR 5232 Advanced Human Pathophysiology I
NUR 5351 Advanced Pharmacology
NUR 5211 Servant Leadership

Year 1: Spring Semester **9 sem. hrs.**
NUR 5349 Global Healthcare & Missions
NUR 6316 Transforming Health Care Organizations and Changing Outcomes
NUR 5312 Advanced Practice Nursing Roles

Year 1: Summer Semester **7 sem. hrs.**
NUR 5314 Scientific Inquiry I
NUR 6272 Applied Ethics for the APRN
NUR 5233 Advanced Human Pathophysiology II

Year 2: Fall Semester **7 sem. hrs.**
NUR 5452 Advanced Health Assessment/Promotion/Disease Prevention
NUR 6377 Policy Implications for Healthcare

Year 2: Spring Semester **6 sem. hrs.**
NUR 5255 Advanced FNP I & NM I Primary Care for the APRN's
NUR 5153 Advanced Practice FNP I & NM I Primary Care Practicum
NUR 6373 Clinical Epidemiology

Year 2: Summer Semester **10 sem. hrs.**
NUR 6375 Translational Science
NUR 5242 Nurse-Midwifery IIA: Women's Health

NUR 5243 Nurse-Midwifery IIB: Women's Health
NUR 5V43 Nurse-Midwifery II: Women's Health Practicum
Year 3: Fall Semester **7 sem. hrs.**
NUR 5344 Nurse-Midwifery III: Care of the Childbearing Family
NUR 5345 Nurse-Midwifery III: Care of the Childbearing Family Practicum
NUR 61C1 DNP Project I
Year 3: Spring Semester **7 sem. hrs.**
NUR 5346 Nurse-Midwifery IV: High Risk Family
NUR 5248 Nurse-Midwifery IV: High Risk Family Practicum
NUR 62C2 DNP Project II
Year 3: Summer Semester **7 sem. hrs.**
NUR 5280 Health Informatics and Innovations in Technology
NUR 5370 Advanced Practice Nurse-Midwifery Residency
NUR 62C3 DNP Project III
Last Semester **6 sem. hrs.**
NUR 5140 Professional Issues for Nurse Midwives
NUR 6V76 Advanced Nursing Practice Residency
NUR 62C4 DNP Project IV

Student Financial Services

Students entering or enrolled in the School of Nursing may apply for financial aid by completing the FAFSA at fafsa.ed.gov. For more information on applying for financial aid visit our website at www.baylor.edu/sfs.

Financial Aid Office – Dallas
Email: Endalk_Tulu@baylor.edu
Phone: 214-820-4143
Student Financial Services – Waco
Email: Financial_Aid@baylor.edu
Phone:1-800-BAYLOR-U, option 8-2, or (254) 710-2611
Fax: (254) 710-2695

Health Care Provider Certification

Students must be certified/recertified in the American Heart Association BLS for Health Care Providers (CPR and AED) prior to the first day of the clinical class in each semester.

In addition to CPR certification, students in the Neonatal Nurse Practitioner and Nurse-Midwifery majors are required to have current Neonatal Resuscitation Program (NRP) certification. No student will be allowed in the clinical setting until fulfillment of this requirement is documented.

Immunizations

Prior to beginning the clinical rotations each semester, all students must provide written documentation of current TB test, hepatitis B series, and up-to-date TDap, measles, mumps, rubella, and varicella immunizations. Verification of annual fall influenza immunization is also required. No student will be allowed in the clinical setting until fulfillment of this requirement is documented.

Health Services

ALL students in the School of Nursing must have their own personal health insurance coverage.

The School of Nursing has a partnership in place to provide same-day appointments with a physicians' group at Baylor University Medical Center Family Health Center for minor health problems. However, students are responsible for all health care costs incurred while a student at Baylor.

Professional Liability Insurance

Each year the Louise Herrington School of Nursing makes arrangements with an insurance company to provide professional liability insurance for nursing students.

Coverage for students is yearly, based upon continuous enrollment in the program.

Questions concerning coverage may be addressed to the Academic Support Specialist for the Graduate Program.

Student Life, Services, and Facilities

The regents, administration, and faculty of Baylor University believe that students should have comprehensive and varied opportunities for physical, intellectual, social, cultural, religious and emotional development. To this end a variety of services, activities and facilities is available to students.

Campus Ministries

The Campus Ministries Office provides a broad base of religious activities for students on the Dallas campus. Activities include Bible studies, local mission opportunities, retreats, and mission trips. Campus Ministries is committed to providing a well-balanced program of ministry opportunities for all students on the Dallas campus.

Professional Organizations

The School sponsors the Eta Gamma chapter of Sigma Theta Tau, the International nursing honor society. Qualified students are considered for membership in Sigma Theta Tau International after completion of at least one-half of the requirements in the major.

Tom Landry Center

Located on the campus of Baylor University Medical Center, the Landry Center provides a comprehensive fitness facility for students. Full-time students are given complimentary membership which entitles them to use this facility free of charge during certain regulated hours of operation.

Mabel Peters Caruth Learning Resource Center

Nursing Learning Resource Center (NLRC)

The NLRC is in the basement of the Academic Building at 333 N. Washington Avenue in Dallas. It specializes in nursing resources that support faculty research and nursing student learning. NLRC resources include: research and full text databases; electronic journals; books and e-books; undergraduate textbook reserves; printers; a full-color digital scanner; study rooms with white boards; student e-mail and internet access; and clinical equipment for check out. The NLRC has access to all the Baylor University Central Libraries electronic resources plus some that are LHSON-access only.

Staffing Hours

The physical NLRC space is accessible by the Dallas-issued ID badge 24 hours/7 days a week. The Information Desk is staffed about 83 hours a week during regular semesters. Fall and spring NLRC desk staffing hours begin on the first day of class. Below are the standard desk staffing hours during the fall and spring semesters.

Monday through Thursday	08:00 - 23:00
Friday	08:00 - 17:30
Saturday	09:00 - 17:00
Sunday	13:00 - 23:00

NLRC Information Desk staffing hours are posted on the website and displayed on monitors around the nursing school buildings. Desk staffing hours for holidays, summer school, breaks, and between sessions vary. These special hours will be posted in advance. For more information, go to the NLRC website, call (972) 576-9200, or e-mail nursinglrc@baylor.edu.

Have a Question? Need Help?

A credentialed professional medical librarian is available to answer questions and provide research assistance weekdays between 8:00 a.m and 5:00 p.m. Nursing student workers are also availale to help and give advice. Stop by the NLRC, call (972) 576-9200, or e-mail nursinglrc@baylor.edu. The e-mail is checked three times per day Monday through Friday. NLRC users may also schedule an appointment for assistance.

Counseling Services

Various avenues for personal counseling services are available to students on the Dallas campus. LHSON has contracted with Sparrow House Counseling, a professional practice close to the campus, to provide a spectrum of counseling services to LHSON students. Students may attend up to six individual sessions at no cost. After that, Sparrow House counselors are available for an hourly fee but do accept many insurance policies. The counselors have experience with a wide range of issues such as anxiety, depression, eating disorders, and family counseling. All members of their staff are professional counselors who provide sound counseling from a Christian perspective. To take advantage of this service, call for an appointment (214-736-9955) and identify yourself as a Baylor Nursing student.

The Chaplain and Coordinator of Campus Ministries along with the Director of Student Services are available to assist students with certain informal counseling needs—usually related to issues centering around relationships, family, dating, preparation for marriage, goals, stress management, etc. Both can make referrals as needed for more formal counseling. The faculty often provides informal counseling related to academic performance and makes referrals to those students having the need for more in-depth, long-term assistance.

Successful Progression in the MSN Program

Successful progression in the MSN program is based on meeting course outcomes as outlined in each course syllabus and requires a pattern of effective demonstration of abilities in projects, assessments, discussion board postings, objective assessments, and residency project presentation to an expert panel. If there is an identified pattern of difficulty in meeting these requirements, strategies to strengthen necessary abilities may be required before the student is allowed to progress in the program. These strategies will be documented in an individualized Learning Contract. The student is responsible to fulfill the requirements of the Learning Contract.

Students who are unsuccessful in a course will be required to repeat that course the next time it is offered. Students will work with the Academic Support Specialist to modify their degree plan. The MSN Program Coordinator will approve changes to the degree plan.

Students must earn a grade of "B" in a course to be considered passing and to progress in the MSN program. Students are allowed to earn one "C" in the program and continue progressing, as long as their cumulative GPA remains at or above a 3.0 minimum. Students will need to repeat any course in which they receive a grade of "C".

If the student earns a second "C" in the program, this will count towards the overall number of failures in the program, and the student will be required to repeat the course the next available time it is offered. A maximum of two MSN courses may be repeated. Any student who earns a total of three failures will be terminated from the MSN program. When any course is repeated and a "B" is not attained, there is cause for termination from the MSN program.

All students who are awarded a progress code of Incomplete at the end of one semester must finish all coursework by the end of the next semester or the progress code will revert to an "F," and the student will need to repeat the course. Incomplete grades will not be extended beyond the semester immediately adjacent to the one in which the course was originally taken.

Successful Progression in the DNP Programs

The minimum passing grade for all graduate nursing courses is a "B"(81%). Each student in the Graduate Program in Nursing must achieve a grade of "B" (81%) or better in all courses, clinical and/or didactic, in order to advance in the program. If a student does not achieve a grade of "B " or above in any course, the course must be repeated at LHSON the next time it is offered. A course may be repeated one time only. When any course is repeated and a "B" is not attained, there is cause for termination from the Graduate Program in Nursing.

A maximum of two courses can be repeated. Any student who fails a total of three courses, regardless if the student passes a repeat course for two of them, will be terminated from the Graduate Program in Nursing. Additionally, graduate students must maintain a "B" (3.0) overall grade point average (GPA). Any student whose overall GPA falls below a "B" average during any semester will be placed on probation for the next nine (9) semester hours of course work.

If, after completion of the ninth semester hour credit the student's overall grade point average is still below 3.0, the student will receive notification of dismissal from the Graduate School. A grade of Incomplete (I) is given when a student in good standing, who has completed the majority of the coursework in a class, experiences an unforseen event that prevents him/her from taking the final exam and/or submitting final paper(s), e.g. illness requiring hospitalization. The faculty member will determine a new deadline to finish the course requirements that will be no later than the end of the following semester. If the course is not completed by this time, the "I" will be changed to a grade of "F" or "NC" as specific to the course.

Leave of Absence

It is expected that a student will maintain continual registration in the University from the time of initial matriculation up to completion of the program. If this is not possible, a leave of absence (LOA) must be requested. A LOA should be requested prior to the anticipated date of the leave. Students must complete a Request for Leave of Absence form and submit to their Specialty Track Coordinator and Academic Support Specialist. Students may request a leave of absence that is not to exceed one academic year (maximum of 3 semesters, including summer) consecutively or interspersed throughout the program. Accruing more than one year of LOA will result in automatic dismissal from the program; students wishing to continue will be required to reapply. Depending on the length of LOA and graduate standing, return to the program after a LOA will be contingent upon Specialty Track Coordinator approval and may include skills testing, repeat of classes or testing for proficiency prior to re-enrolling in classes.

DOCTOR OF OCCUPATIONAL THERAPY (OTD) ONLINE DEGREE

The Post-Professional OTD program prepares currently licensed Occupational Therapists for continued professional development, interprofessional collaboration, and leadership roles by integrating systematic reviews as a method to synthesize knowledge, guide practice and justify reimbursement. The program's educational goals include preparation of students in an area of clinical specialization using settings where occupational therapy (OT) is currently practiced and settings where it is emerging. The program is structured to facilitate the student's personal and professional development, to encourage change and adaptation, and to ensure the mastery of the discipline through advanced coursework including development as leaders and advanced scholarly practitioners in occupational therapy. Coursework is organized to prepare students to identify client's potential or actual occupational needs and to intervene with an occupation-centered approach. Student completion of the doctoral capstone project is designed to strengthen the integration of evidence and practice. Students graduate as doctoral-level practice-scholars with the capacity to transform occupational therapy practice.

The curriculum promotes synthesis of evidence-based practice, professional trends, occupational science, and technologies that support health and participation. Students are required to complete 22 credits of Occupational Therapy courses including the doctoral capstone series and 8 advanced practice electives. The Plan of study for Baccalaureate-prepared students includes additional 9-credit hours of coursework emphasizing the critical thinking skills required for evidence-based practice.

Admission Requirements

The PPOTD program is designed for qualified individuals who wish to further their academic studies in the field of occupational therapy. Students accepted into the PPOTD Program must meet the following criteria:

1. All applicants must provide a copy of a current and valid license to practice occupational therapy in one of the 50 United States, the District of Columbia, Puerto Rico, or US Virgin Islands. This license must be in good standing.
2. Complete online application with $50 application fee.
3. Successful completion of an entry-level, accredited occupational therapy program at the master's or baccalaureate degree level.
4. Official transcripts from the degree conferring institution are required and must be submitted to the University directly from the issuing institution.
5. CV/Resume
6. 2-3 letters of recommendation
7. Application Essay or personal statement

Applicants for whom English is not a primary language must take the TOEFL.

Required Core Courses

OTD	6310	Advances in OT Practice
OTD	6210	Evidence Based Practice
OTD	6320	Conceptual Foundations
OTD	6220	Professional Development
OTD	6230	Teaching and Education Theory
OTD	6330	Clinical Reasoning
OTD	6240	Program Evaluation and Development

Required Capstone Courses

OTD	6101	Capstone Seminar 1
OTD	6102	Capstone Seminar 2
OTD	6103	Capstone Seminar 3
OTD	6104	Capstone Seminar 4
OTD	6105	Capstone Seminar 5

Elective Tracks (under development) Each student must complete a minimum of 8 credit hours from the elective courses.

- Hybrid Learning : Fully Online
  - ☐ Essentials in Hybrid Learning
  - ☐ Effective Sills in Hybrid Learning & Teaching
  - ☐ Teaching Practicum in Hybrid Learning
  - ☐ Therapeutic Neuroscience Education
- Pediatrics: Includes required hands-on weekend intensive, student responsible for travel
  - ☐ Early Intervention and School-based Practive
  - ☐ Management of Pediatrics Neuro conditions
  - ☐ Management of Pediatrics Musculoskeletal conditions
  - ☐ Upper Extremity Orthotics for the Pediatrics client
  - ☐ Pediatrics Wheelchair Seating and Positioning
- Geriatrics: Includes required hands-on weekend intensive, student responsible for travel
  - ☐ Management of Falls and Balance Disorders
  - ☐ Management of Geriatrics Musculoskeletal conditions
  - ☐ Wellness and Health Promotion in Geriatrics Rehab
  - ☐ Complementary Therapies in Geriatrics Rehab
  - ☐ Regulatory, Legal, Policy Issues in Geriatrics Rehab
- Hand Therapy: Includes required hands-on weekend intensive, student responsible for travel
  - ☐ Management of the Shoulder
  - ☐ Management of the Elbow
  - ☐ Management of the Wrist and Forearm
  - ☐ Management of the Hand
- Pain Science: Includes required hands-on weekend intensive, student responsible for travel
  - ☐ Therapeutic Neuroscience Education
  - ☐ A Study of Neurodynamics I & II
  - ☐ Too Hot to Handle
  - ☐ Everything Hurts
  - ☐ Perioperative Therapeutic Neuroscience Education
  - ☐ Business of Chronic Pain

Required Bridge Courses

*Students entering with a baccalaureate degree must complete 9 credit hours of bridge course prior to graduation

OTD 6327	Research Design and Methodology	3-0-0-3
OTD 6335	Occupational Therapy Theoretical Perspective	3-0-0-3
OTD 6327	Clinical Research and Statistical Analysis	3-0-0-3

**Credit hours are depicted as distance education–lab–clinical–total.*

DEPARTMENT OF PHILOSOPHY

Chairperson: Michael Beaty
Graduate Program Director: Alexander Pruss

Admission

The Department of Philosophy offers graduate work leading to the Master of Arts and the Doctor of Philosophy degrees. For admission to its graduate program, the department requires (1) a bachelor's degree from an accredited institution; (2) at least fifteen hours of course work in philosophy; (3) a Graduate Record Examination General Test (GRE) score predictive of success in this program; (4) a brief writing sample; and (5) three letters of recommendation. The faculty of the department may modify these requirements in exceptional circumstances. We currently do not admit students for terminal M.A. studies, but doctoral students often find it useful to receive the M.A. degree when they have completed enough of the program to qualify for it.

MASTER OF ARTS

Required Course Work:

A. 30 hours in Philosophy. At least twenty-one of the required hours must be at the 5000-level.
B. Either PHI 5330 Readings in Ancient and Medieval Philosophy or PHI 5331 Readings in Modern and Contemporary Philosophy.

DOCTOR OF PHILOSOPHY

Total Hours for the Degree **70 sem. hrs.**

1. Specific Courses Required **25 sem. hrs.**

PHI 5318	Logic for Philosophers
PHI 5319	Philosophical Writing
PHI 5350	Workshop in Teaching Philosophy
PHI 5330	Readings in Ancient and Medieval Philosophy
PHI 5331	Readings in Modern and Contemporary Philosophy
PHI 6V10	Prospectus Research (1-9 hours)
PHI 6V99	Dissertation (9 hours)

2. Area Course Requirements - total of 15 semester hours required as follows:

2.1 Contemporary Issues in Philosophy - 9 semester hours required:
Each graduate student must satisfy a Contemporary Issues area requirement in each of ethics, epistemology and metaphysics. The requirement is satisfied by receiving a grade of B or higher in a 5000-level course of at least three credits which is primarily in the area in question according to the decision of the Graduate Director, and which course is not listed under Specific Courses Required. Moreover, the same course cannot be used to satisfy more than one of the Contemporary Issues requirements, or to satisfy both a Contemporary Issues requirement and a History of Philosophy requirement.

9 hours selected from the following:

PHI 5310	Value Theory
PHI 5311	Readings from the Philosophers (Cross-listed as PSC 5311) (Course may be taken up to six times with different topics for a total of eighteen credit hours)
PHI 5313	Topics in Action Theory
PHI 5315	Topics in Philosophy of Mind
PHI 5316	Contemporary Philosophical Problems
PHI 5319	Philosophical Writing
PHI 5320	Special Topics in Philosophy (may be taken up to four times, with different topics)
PHI 5321	Topics in Epistemology
PHI 5322	Topics in Metaphysics
PHI 5333	Seminar in Political Philosophy
PHI 5342	Seminar on Religion, Law and Politics
PHI 5360	Contemporary Ethical Theory (may be taken up to three times, with different topics)
PHI 5361	Topics in Contemporary Philosophy of Religion (may be taken up to three times, with different topics)
PHI 5362	Issues in Contemporary Philosophy of Science (may be taken up to three times, with different topics)
PHI 5365	Topics in Philosophy of Language (may be taken up to three times, with different topics)
PHI 5393	Advanced Seminar in Political Philosophy

2.2 History of Philosophy - 6 semester hours selected from the following:

PHI 4314	History of Philosophy: Patristic and Medieval
PHI 4331	Latin American Philosophy

PHI 4340	East Asian Philosophy
PHI 4341	Contemporary Continental Philosophy
PHI 4342	Contemporary American Philosophy
PHI 4365	Jewish Philosophy
PHI 4379	Islam and Democracy (Cross-listed as PSC 4379)
PHI 4V99	Special Topics in Philosophy
PHI 5301	Readings from Plato
PHI 5302	Readings from Aristotle
PHI 5306	Readings from Kierkegaard
PHI 5311	Readings from the Philosophers (Cross-listed as PSC 5311) (Course may be taken up to six times with different topics for a total of eighteen credit hours)
PHI 5312	Topics in Classical Philosophy (Course may be taken up to three times with different topics for a total of nine credit hours)
PHI 5314	Topics in Modern Philosophy (Course may be taken up to three times with different topics for a total of nine credit hours)
PHI 5338	Seminar on Church and State in Modern Europe (Cross-listed as HIS 5338, and REL 5338).
PHI 5343	Classical Political Thought (Cross-listed as PSC 5343)
PHI 5353	Medieval Political Thought (Cross-listed as PSC 5353)
PHI 5363	Modern Political Thought

3. Electives - 30 Semester hours required chosen with the approval of the Graduate Program Director to cover a broad range of contemporary philosophical issues and historical areas and to ensure a development of at least one area of specialization (AOS) and an area of competency (AOC). Students who enter the Ph.D. program in philosophy with an M.A. in philosophy or a closely related discipline may have the 30 elective hours reduced to take appropriate account of their previous graduate work. The Graduate Program Director will determine the exact number of hours that will transfer, but the maximum number will be 18 semester hours.

Philosophy Preparation

1. A written examination in classical texts of ancient philosophy and medieval philosophy.
2. A written examination in classical texts of modern and twentieth century philosophy.
3. A written dissertation prospectus (not more than 15 pages) and a bibliography.
4. An oral dissertation prospectus defense.
5. A dissertation and a bibliography.
6. An oral examination over the dissertation.

Foreign Language

No foreign language is strictly required for completion of the Ph.D. in philosophy. However, no later than at the time of the prospectus defense, the dissertation committee shall set for each student any relevant requirements beyond the philosophy course work necessary to the pursuit of the student's research, as well as the means by which these are to be satisfied. Normally this will be a foreign language.

Teaching Preparation

1. Six to twelve hours of assisting in introductory courses.
2. PHI 5350 Workshop in Teaching Philosophy.
3. Six to twelve hours of teaching as an instructor of record.

REQUIREMENTS FOR THE GRADUATE MINOR IN PHILOSOPHY

To qualify for a graduate minor in philosophy, students must complete twelve semester hours at the 4000 or 5000-level. These courses are selected in consultation with the Graduate Program Director in their own department as well as the approval of the Graduate Program Director in the philosophy department in order to ensure a broad coverage of contemporary issues and historical time periods.

For further description of the department's graduate program, interested parties may consult the more extensive description of the program at the department's internet site: http://www.baylor.edu/Philosophy/.

DOCTOR OF PHYSICAL THERAPY

The Doctor of Physical Therapy (DPT) degree is offered by Baylor University in two distinct programs.

The Baylor University DPT Program is a 2-year, hybrid-education program that develops future Doctors of Physical Therapy who are skilled, compassionate, and evidence-based clinicians; passionate in their pursuit of knowledge and professional development; and servant leaders to their community and profession. Information related to this program is found below.

The US Army-Baylor University DPT Program is a 30-month program offered through the Army Medical Department Center and School, Health Readiness Center of Excellence at Joint Base San Antonio-Fort Sam Houston, Texas. This program develops future Doctors of Physical Therapy who are active duty commissioned officers in the US military, clinician scientists, and leaders prepared for worldwide military health system practice. Additional information for the US Army-Baylor University DPT Program is found in the "Affiliated Programs" section of this catalog.

ADMISSION REQUIREMENTS

The Baylor University Doctor of Physical Therapy (DPT) Program is designed for qualified individuals who wish to further their academic studies in the field of physical therapy. The program specifically targets traditional and nontraditional students with the demonstrated potential to navigate the academic rigors of an accelerated, hybrid model DPT curriculum. Students accepted into the DPT Program must meet the following criteria:

1. Bachelor's degree from a regionally accredited institution prior to classes beginning. Admission may be granted pending completion of the degree.
2. Completion of all prerequisite coursework with a grade of "C-" or above, to include: Biology with laboratory recommended (6 semester hours), Chemistry with laboratory (8 semester hours), Physics with laboratory (8 semester hours), Human Anatomy and Physiology with laboratory (8 semester hours), Statistics (3 semester hours), Psychology (3 semester hours), Abnormal or Developmental Psychology (3 semester hours), and English Composition or Writing (3 semester hours). Applicants must complete Anatomy and Physiology courses within the last 5 years prior to application.
3. Minimum cumulative and prerequisite course GPA of 3.00.
4. Graduate Record Examination (GRE) completed within the last 5 years.
5. Two (2) letters of recommendation: one from a licensed physical therapist and one from someone of the applicant's choice.
6. Minimum of fifty (50) hours of volunteer or work experience with a licensed physical therapist is recommended, but not required.
7. Test of English as a Foreign Language (TOEFL) is required for all applicants for whom English is not their first language or have completed a degree and prerequisite courses in a foreign country.
8. Completion of a Physical Therapy Centralized Application Service (PTCAS) application and a Baylor University Graduate School supplemental application.
9. Personal interview.
10. Fulfill Technical Standards with or without accommodation.
11. Background Check prior to matriculation.

A full description of the DPT Program admission requirements and technical standards are provided at www.baylor.edu/dpt.

PROGRAM ACCREDITATION STATUS

Graduation from a physical therapist education program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) is necessary for eligibility to sit for the licensure examination, which is required in all states.

Effective October 25, 2017, the Baylor University DPT Program has been granted Candidate for Accreditation status by the Commission on Accreditation in Physical Therapy Education (1111 North Fairfax Street, Alexandria, VA, 22314; phone: 703-706-3245; email: accreditation@apta.org). Candidate for Accreditation is a pre-accreditation status of affiliation with the Commission on Accreditation in Physical Therapy Education that indicates that the program may matriculate students in professional courses and that the program is progressing toward accreditation. Candidate for Accreditation is not an accreditation status nor does it assure eventual accreditation.

CURRICULUM

The professional curriculum leading to the Doctor of Physical Therapy degree requires students to complete 127 semester credit hours of coursework in 6 continuous academic semesters over a 24-month period. Students are enrolled into the DPT program as a cohort and complete required

courses in a prescribed, sequential manner. Course sequencing within the curriculum is designed to optimize the student's ability to learn and integrate course material into future didactic and clinical education experiences. The curriculum is dynamic to keep abreast with best evidence in both clinical and educational practice.

Semester One		**24 semester hours**
DPT 6300	Human Physiology	
DPT 6400	Physical Therapy Fundamentals	
DPT 6410	Human Anatomy I	
DPT 6331	Therapeutic Interventions I	
DPT 6100	Professional Competencies I	
DPT 6200	Evidence Based Practice I	
DPT 6430	Human Anatomy II	
DPT 6390	Movement Science	
Semester Two		**22 semester hours**
DPT 6500	Musculoskeletal Practice I	
DPT 6310	Health Promotion and Fitness Management	
DPT 6440	Musculoskeletal Practice II	
DPT 6230	Evidence Based Practice II	
DPT 6450	Clinical Neuroscience	
DPT 6210	Therapeutic Interventions II	
DPT 6220	Bracing, Orthotics, and Prosthetics	
Semester Three		**24 semester hours**
DPT 6510	Musculoskeletal Practice III	
DPT 6320	Neuromuscular Practice I	
DPT 6380	Management of the Aging Adult	
DPT 6460	Musculoskeletal Practice IV	
DPT 6340	Neuromuscular Practice II	
DPT 6240	Mindful Patient Management	
DPT 6470	Cardiopulmonary Practice	
Semester Four		**20 semester hours**
DPT 6810	Physical Therapy Practice I	
DPT 6530	Management of Complex Patients	
DPT 6350	Management of the Pediatric Patient	
DPT 6260	Pharmacology	
DPT 6280	Advanced Diagnostics	
Semester Five		**18 semester hours**
DPT 6360	Advanced Therapeutic Interventions	
DPT 6250	Integrative Pain Sciences	
DPT 6290	Primary Care Physical Therapy	
DPT 6820	Physical Therapy Practice II	
DPT 6370	Business Management and Entrepreneurship	
Semester Six		**20 semester hours**
DPT 6V10	Physical Therapy Practice III	
DPT 6295	Capstone Project	
DPT 6270	Professional Competencies II	

BLENDED EDUCATION FORMAT

The DPT curriculum is delivered in a blended learning format that optimizes technology and web-based teaching strategies for foundational didactics, integrates critical psychomotor skill development during onsite lab immersion sessions, and incorporates a structured and collaborative clinical education program. Online, distance-based education comprises 55% (70 credits) of the overall curriculum. The program's didactic courses are completed using a combination of asynchronous and synchronous class activities to provide a quality, rigorous, and flexible learning experience for a diverse student body of traditional and nontraditional students. Onsite laboratory immersion sessions comprise 20% (25 credits) of the curriculum. Onsite instructional time each academic semester is consolidated into

5- to 12-day lab immersion sessions that are conducted in Dallas, TX. These lab sessions focus on the development of critical communication, problem solving, clinical reasoning, and psychomotor skills that are required for effective patient and physical therapy practice management. Clinical education comprises 25% (31 credits) of the overall curriculum and consists of an 8-week clinical experience in the 4th academic semester, an 8-week experience in the 5th semester, and a 15-week experience in the 6th semester. The majority of students will combine the final two clinical experiences into a terminal 23-week clinical internship. Students complete a structured clinical education plan at locally, regionally and nationally located clinical practices to facilitate their professional development as skilled entry-level practitioners.

GRADUATION REQUIREMENTS

For a student to graduate from the Doctor of Physical Therapy program, the student must be in a good academic and professional standing, have had satisfactory progress in all semesters of the academic program, and satisfactorily complete the following:

1. Successfully complete the required 127 semester credit hours of academic and clinical education course work.
2. Maintain a minimum cumulative grade point average of 3.00 or above.
3. Achieve a letter grade of "C" (70%) or better in all academic courses.
4. Successfully complete and "Pass" all clinical education courses.
5. Achieve entry-level competence as a physical therapist, as demonstrated on the Physical Therapist Clinical Performance Instrument (PT CPI).
6. Exhibit professional behaviors consistent with clinical practice as described in the Professional Behaviors, APTA Core Values, and the Code of Ethics for the Physical Therapist within the DPT Student Handbook.
7. Achieve a 70% or higher score on at least one Practice Exam and Assessment Tool (PEAT) examination from the Federation of State Boards of Physical Therapy (FSBPT) www.FSBPT.org (accessed July 2016) as part of DPT 6295 Capstone Course.

DEPARTMENT OF PHYSICS

Interim Chairperson: Dwight Russell
Graduate Program Director: Gerald B. Cleaver

The department offers the Master of Arts, Master of Science, and Doctor of Philosophy degrees in physics. For admission to major graduate study in physics, students must satisfy the following requirements:

1. Thirty-two semester hours of undergraduate physics, including six semester hours of 4000-level courses in physics.
2. Eighteen semester hours in undergraduate mathematics, including differential equations.
3. Acceptable scores on the Graduate Record Examination General Test (GRE).

The Graduate Record Examination Subject Test in physics is optional. For admission to minor graduate study in physics, students must have completed a minimum of nineteen semester hours in undergraduate physics and must satisfy the prerequisites for the courses which are to be counted for graduate credit.

MASTER OF ARTS AND MASTER OF SCIENCE

Requirements for the Master of Arts (M.A.) degree are thirty-six semester hours, including at least eighteen hours of 5000-level courses (of which twelve must be from Ph.D. core courses) and an oral examination or the Ph.D. qualifying examination. Requirements for the Master of Science (M.S.) degree are thirty semester hours of graduate courses, including 6 hours of thesis and at least twelve semester hours from the Ph.D. core courses. The Physics Department does not have a foreign language requirement for the master's degrees.

Students working toward an M.A. or M.S. degree are required to register for PHY 5180 (colloquium) each semester, until two semester hours have been completed.

The Department of Physics also offers the M.A. and M.S. degrees with a specialty in environmental physics. In addition to the admission requirements listed above, the following regulations also apply:

1. The student's Advisory Committee shall include one member of the physical sciences faculty, active in the Department of Environmental Studies.
2. A minimum of eighteen hours of graduate-level physics (twelve semester hours of 5000-level physics) is required.

3. Six semester hours of graduate-level course work in environmental studies are required.
4. Six semester hours of research (PHY 5V99) are required for the thesis with the research problem area being in environmental physics.

Additional information concerning the M.A. and M.S. degrees with a specialty in environmental physics may be obtained from the chairperson of the department.

DOCTOR OF PHILOSOPHY

A minimum of seventy-eight hours is required for the Ph.D. in physics. As part of this requirement, the student must receive course credit for the physics Ph.D. core (PHY 5320, 5330, 5331, 5340, 5360, 5370, and 5371) along with credit for four semester hours of 5180 (colloquium) which must be completed in residence. The remaining hours will consist of a combination of advanced courses as required by the student's supervisory committee, electives, and twelve hours of dissertation with its associated research. In order to carry out the dissertation research, a student must declare the Ph.D. Candidacy by passing the Ph.D. qualifying examination. The Physics department does not have a foreign language requirement for the Ph.D. degree.

The research required for the Ph.D. degree will be conducted in one of the active research areas within the department. Currently, this includes the fields of theoretical or experimental astrophysics, atomic, condensed matter, complex plasma, molecular, nonlinear dynamics, nuclear, optical, solid-state, space, surface,and elementary particle physics as well as super string theory, cosmology, and gravity. The experimental labs include the scanning tunneling microscope (STM) laboratory equipped with two ultra-high vacuum variable temperature STMs and a metalorganic oxide chemical vapor deposition system, LSAM (Laboratory for Surface Analysis and Modification) with an XSAM 800 Surface analysis system, semiconductor laser optics lab with a Nd: YAG laser and optical parametric oscillator, and the HIDPL (Hypervelocity Impacts and Dusty Plasma Lab) equipped with two GEC rf reference cells, a Zyvex S100 nanomanipulator, Verdi laser system, a dye laser system, two light gas accelerators, and an electrostatic linear accelerator. All of the physics labs are supported by on-site machine and electronics shops. The department is also active in experimental High Energy Physics at the Fermi National Accelerator Laboratory in Batavia, Illinois, and the Large Hadron Collider at CERN near Geneva, Switzerland.

DEPARTMENT OF POLITICAL SCIENCE

Chairperson: W. David Clinton
Graduate Program Director: Timothy W. Burns

The Department of Political Science offers graduate work leading to the Master of Arts and Doctor of Philosophy degrees in political science, as well as the following M.A. degrees:

- Master of Arts in international relations
- Master of Public Policy and Administration
- Master of Public Policy and Administration and Juris Doctor, offered jointly with the Baylor University School of Law

Admission

For admission to the department's graduate programs, an applicant must present:

1. a bachelor's degree from an accredited college or university either in political science or a field relevant to applicant's program of study
2. an overall GPA and a Graduate Record Examination General Test (GRE) score predictive of success in the program
3. three letters of recommendation
4. a "statement of purpose," identifying areas of primary interest, describing intellectual background and ambitions, and explaining how the degree sought facilitates applicant's academic and professional goals (1-2 pages)
5. a brief writing sample (e.g., an undergraduate paper of 10-12 pages)
6. expressed areas of academic/research interests compatible with those of the faculty
7. applicants whose native language is not English and whose undergraduate degree is from an institution outside the United States must also submit results from the TOEFL exam. (For further details, see the section on Admissions at the front of this catalog.)

Decisions about admissions and financial aid will, in each case, be based on evaluation of these materials as a whole.

MASTER OF ARTS

Requirements

Thirty-six hours of graduate study. A minimum of eighteen of those hours, exclusive of thesis credits, must be in courses at the 5000-level. For information on transferring graduate credit from an accredited university or college, see the section on transfer credit in the General Degree Requirements Section in the front of the catalog. The M.A. in political science is not an independent degree, but is ordinarily awarded only to students enrolled in the Ph.D. program upon completion of the course requirements here described.

Distribution Requirements: **18 sem. hrs.**

Students select a primary and secondary field from the following three fields:

Political philosophy/political theory
American politics/constitutional law
International Relations/Comparative politics

Primary field requirement:	9 sem. hrs.
Secondary field requirement:	6 sem. hrs.
Third field requirement:	3 sem. hrs.

Elective Courses **12 sem. hrs.**

Students will choose four additional graduate courses from the Political Science department's remaining 4000 and 5000-level courses to make up a program of study of at least 30 hours. With the approval of the Graduate Program Director, students may take up to six elective hours outside of the Political Science department. These hours must be at the 4000-level or higher.

Writing and Special Study Options **6 sem. hrs.**

The Master of Arts degree in political science may be earned in two ways. After consultation with the Graduate Program Director, all students will choose one of the following:

Thesis program: Students who elect to write a thesis are required to complete six semester hours of thesis credit including an oral defense of the project.

Non-thesis program: Students may elect to take six additional hours of graduate level course work rather than write a thesis. Students who do not write a thesis must pass a comprehensive examination.

Please note that all students must plan to take their examinations during the spring or fall semesters, even if anticipating an August graduation.

Total required **36 sem. hrs.**

DOCTOR OF PHILOSOPHY

Requirements **72 sem. hrs.**

Students select a major and minor field from the following three fields:

Political philosophy/political theory
American politics/constitutional law
International relations/comparative politics

major field requirement	18 sem. hrs.
minor field requirement	12 sem. hrs.
third field requirement	3 sem. hrs.
Methodology/Language Requirements (includes PSC 5323, Research Design and Research Methods)	3-9 sem. hrs.
electives (may include 9 sem. hrs. in interdisciplinary concentration)	9-24 sem. hrs.
dissertation work	12 sem. hrs.

Political Science Preparation

1. Either an M.A. thesis or a comprehensive exam in the student's second year is required for the M.A. degree, which will be used in the evaluation of a student's preparation to continue on for the Ph.D.
2. Doctoral students who choose international relations/comparative politics as their major field may elect to receive a Master of Arts in international relations rather than in political science

by completing the requirements for that degree, but substituting the "writing and special study options" of the M.A. in political science for those of the terminal M.A. in international relations. In addition, those doctoral students who choose to receive an M.A. in international relations may request that the third field requirement of the M.A. degree in political science be postponed until the student's third year of study.

3. Comprehensive exams in both major and minor fields of study.
4. An approved dissertation prospectus.
5. Student must register for 12 credits of PSC 6V99 Dissertation. 3-6 of these hours may be taken in a section of 6V99 designed for the purpose of discussion and criticism of dissertation chapters and journal articles. Dissertation writing group will also serve as a forum for research presentations for job interviews when appropriate. This special section of PSC 6V99 is designed to increase students' skills and writing strategies for presenting their work to the scholarly community, facilitate completion of the dissertation, improve the quality of written work, and produce important publications at the dissertation stage helpful to students' careers.

Methodology/Language Preparation

1. PSC 5323, Research Design and Research Methods (3 hours).
2. Competency in either one foreign language (classical or modern) or a course in advanced research methods and statistics, such as SOC 5312 (cross-listed as PSC 5312), Social Science Data Analysis. When appropriate, a second foreign language or course in statistics will be recommended.

Professional Paper

1. All students must complete a professional paper approved by two professors who have worked with the student in the subfield in which the paper is written.

Teaching preparation

1. 3-4 semesters of work as a teaching apprentice for undergraduate courses.
2. 3 credits of PSC 5396, Teaching Political Science must be taken in conjunction with teaching apprenticeships. (These can be included in field requirements).
   Up to 6 credits of PSC 5396 may be taken, but 3 credits of PSC 5396 are required.
3. Teaching experience in one or more undergraduate courses.

Students who enter the Ph.D. program with an M.A. degree from another institution will find the requirements modified to take appropriate account of their previous graduate work.

MASTER OF ARTS
in International Relations

Program of Study

The minimum requirement for the Master of Arts graduate degree is thirty-six hours, which must include at least one-half of those semester hours, exclusive of thesis credits, at the 5000-level. For information on transferring graduate credit from an accredited university or college, see the section on transfer credit in the General Degree Requirements Section in the front of the catalog.

Core Courses

Choose at least six of the following courses:		**18 sem. hrs.**
PSC 4303	International Human Rights	
PSC 4316	Grand Strategy	
PSC 4365	International Political Economics	
PSC 4375	International Organizations	
PSC 5315	Development of International Relations Thought	
PSC 5323	Research Design and Research Methods	
PSC 5324	Seminar in Comparative Politics	
PSC 5325	Seminar in International Relations	
PSC 4305	International Law	
PSC 4335	Public Discourse and Foreign Policy	
PSC 4346	Intelligence and Covert Action	
PSC 4355	Power, Morality, and International Relations	
PSC 4379	Islam and Democracy	

PSC	4385	Diplomacy in Theory and Practice
PSC	4395	Terrorism
PSC	5335	Seminar in National Security Decision Making
PSC	5344	Comparative Constitutional Law
PSC	5345	American Foreign Policy
PSC	5355	Development of Strategic Thought

Electives **12 sem. hrs.**

The student should select four courses (12 semester hours) from the following "Regions" and "Global Studies" courses, in consultation with the Graduate Program Director. PSC 5391 may be taken twice for credit either in Regions or Global Issues

Writing and Special Study Options **6 sem. hrs.**

After consultation with the Graduate Program Director, a student will choose one of the following options:

1. PSC 5V12 Graduate Internship, involving a written report on at least three months of full-time supervised employment with an agency involved in International Affairs;
2. PSC 5392 Professional Paper in International Relations and one additional 5000-level graduate elective;
3. PSC 5V99 Master's Thesis including an oral defense of the project; or
4. Six semester hours of graduate-credit study at a foreign university, as approved by the Graduate Program Director and the Dean of the Graduate School.

Total **36 sem. hrs.**

Fields of Study

REGIONS

Asia

PSC	4325	Asian International Relations
PSC	4344	Government and Politics of Russia
PSC	4364	The Governments and Politics of the Asia-Pacific Region
PSC	4374	Governments and Politics of East Asia
AST	4350	Seminar in Asian Studies
PHI	4340	East Asian Philosophy
REL	4346	Religions of India, China, and Japan
REL	5347	Religions of India

Europe and the United States

PSC	4324	British Government and Politics
PSC	4335	Public Discourse and Foreign Policy
PSC	4354	Governments and Politics of Western Europe
PSC	5310	Seminar in American Politics
PSC	5335	Seminar in National Security Decision Making
PSC	5345	American Foreign Policy
HIS	4336	Europe since World War I
HIS	4339	Cultural and Intellectual History of Modern Europe
HIS	4343	France since 1815
HIS	4390	American Foreign Relations to 1919
HIS	4392	American Foreign Relations since 1919
PHI	4341	Contemporary Continental Philosophy
REL	5335	Modern European Christianity

Latin America

PSC	4304	Governments and Politics of Latin America
ECO	4331	Economic Problems of Latin America
HIS	5350	Seminar in Latin American History
LAS	4350	Latin American Studies Seminar
PHI	4331	Latin American Philosophy

Middle East and Africa

PSC	4334	Government and Politics of the Middle East

REL	4345	Religions that Shaped the Western World
REL	5346	Judaism and Islam
REL	5342	Native American Religion

GLOBAL ISSUES AND INSTITUTIONS

PSC	4305	International Law
PSC	4316	Grand Strategy
PSC	4346	Intelligence and Covert Action
PSC	4355	Power, Morality, and International Relations
PSC	4375	International Organizations
PSC	4379	Islam and Democracy
PSC	4383	Contemporary Political Thought
PSC	4385	Diplomacy in Theory and Practice
PSC	4395	Terrorism
PSC	5315	Development of International Relations Thought
PSC	5320	Seminar in Comparative Public Policy
PSC	5344	Comparative Constitutional Law
PSC	5355	Development of Strategic Thought
PSC	5391	Reading Course in Political Science
ANT	4350	Urbanization and Development
CSS	4353	Public Discourse and Foreign Policy
ECO	4334	Economic Development
ECO	5321	Energy Economics
ECO	5330	Problem Areas in International Economics
ECO	5338	Seminar in World Economic Systems
ECO	5343	History of Economic Thought
ENV	4310	World Food Problems
REL	5345	Christianity and Other Religions

MASTER OF PUBLIC POLICY AND ADMINISTRATION

Program of Study

The minimum requirement for the Master of Public Policy and Administration graduate degree is thirty-six hours. A minimum of one-half of the semester hours required for the master's program, exclusive of thesis credits, must be in courses numbered at the 5000-level. For information on transferring graduate credit from an accredited university or college, see the section on transfer credit in the General Degree Requirements Section in the front of the catalog.

There are three components of the MPPA program:

Core Courses (any seven) **21 sem. hrs.**

PSC	4300	Political Behavior
PSC	4307	Environmental Law
PSC	4310	Politics and Communication
PSC	4316	Grand Strategy
PSC	4322	Seminar in Public Administration
PSC	4330	Urban Political Processes
PSC	4335	Public Discourse and Foreign Policy
PSC	4342	Courts and Public Policy
PSC	4346	Intelligence and Covert Action
PSC	4350	Political Parties
PSC	4355	Power, Morality, and International Relations
PSC	4385	Diplomacy
PSC	5310	Seminar in American Politics
PSC	5321	Seminar in Public Law
PSC	5323	Research Design and Research Methods
PSC	5330	American Political Development
PSC	5340	The American Founding
PSC	5344	Seminar in Comparative Constitutional Law
PSC	5345	Seminar in American Foreign Policy

PSC 5350 Seminar in Presidential Rhetoric
PSC 5391 Reading Course*
*Reading Course may be taken twice

Elective Courses **9 sem. hrs.**
(including at least one 5000-level graduate course) selected from:
1. Courses listed above.
2. Other Political Science courses.
3. Relevant graduate-level courses in cognate fields (e.g., Accounting, Economics, Environmental Studies, History, Management, Quantitative Business Analysis, Sociology).

Professional Internship/Research **6 sem. hrs.**
After consultation with the Graduate Program Director, a student will choose one of the following options:
1. PSC 5V12 Graduate Internship, involving a written report on at least three months of full-time supervised employment with a public service agency;
2. PSC 5392 Professional Paper in Public Policy and Administration and one additional 5000-level graduate elective;
3. PSC 5V99 Master's Thesis including an oral defense of the project.

Total required **36 sem. hrs.**

JOINT JURIS DOCTOR/ MASTER OF PUBLIC POLICY AND ADMINISTRATION (JD/MPPA)

Program Directors: Leah W. Jackson, Associate Dean and Professor, Baylor Law School; Timothy W. Burns, Graduate Program Director, Department of Political Science

Admission

Students are required to fulfill admission requirements for both the Law School and the MPPA program. The MPPA admission requirements can be found above. The Baylor University School of Law web site at http://law.baylor.edu/ contains the most current information about the admissions standards of that school.

Program of Study

Students receive twelve quarter hours of credit on a pass/fail basis toward their JD upon successful completion of the MPPA degree requirements and twelve semester hours of credit on a pass/fail basis toward their elective requirements for the MPPA upon successful completion of JD degree requirements. Thus, JD/MPPA students complete 114 quarter hours of Law and 24 semester hours of Political Science course work. A minimum of one-half of the semester hours required for the master's program, exclusive of thesis credits, must be in courses numbered at the 5000-level. Neither degree may be awarded until all course work is complete. Therefore, all requirements of both schools must be finished before the candidate may receive either degree.

A. Upon commencing law studies, the student is required to take the first three quarters consecutively. After the first three quarters, students may set individual schedules for law school and the MPPA courses. In the Law School, JD/MPPA students must complete the following elective courses:

LAW 9359 Local Government, Constitutional and Federal Liabilities
LAW 9365 Municipal Law

B. JD/MPPA students must also fulfill the following Political Science requirements:

Core Courses (any five) **15 sem. hrs.**
PSC 4300 Political Behavior
PSC 4305 International Law
PSC 4307 Environmental Law
PSC 4310 Politics and Communication
PSC 4316 Grand Strategy
PSC 4322 Seminar in Public Administration
PSC 4330 Urban Political Processes
PSC 4335 Public Discourse and Foreign Policy
PSC 4342 Courts and Public Policy

PSC	4346	Intelligence and Covert Action
PSC	4350	Political Parties
PSC	4355	Power, Morality, and International Relations
PSC	4385	Diplomacy
PSC	5310	Seminar in American Politics
PSC	5321	Seminar in Public Law
PSC	5323	Research Design and Research Methods
PSC	5330	American Political Development
PSC	5340	The American Founding
PSC	5344	Seminar in Comparative Constitutional Law
PSC	5345	Seminar in American Foreign Policy
PSC	5350	Seminar in Presidential Rhetoric
PSC	5391	Reading Course (Public Policy and Administration topics)*

*Reading Course many only be taken once

Elective Courses (any two) **6 sem. hrs.**
(including at least one 5000-level graduate course) selected from:
1. Courses listed above.
2. Other Political Science courses.
3. Relevant graduate-level courses in cognate fields (e.g., Accounting, Economics, Environmental Studies, History, Management, Quantitative Business Analysis, Sociology).

Professional Internship/ Research **3 sem. hrs.**
Choose one of the following options:
1. PSC 5V12 A student must complete three semester hours of PSC 5V12, the Graduate Internship. This involves supervised, full-time employment that combines practical field experience and research. Completion of the course requires a written report of the work done during the internship. Students must work in a public sector agency. Both the Graduate Program Director for the Political Science department and the Associate Dean of the Law School must approve all internships.
2. PSC 5392 Professional Paper in a Public Policy and Administration topic

Total required (Political Science) **24 sem. hrs.**

GEORGE W. TRUETT THEOLOGICAL SEMINARY

Dean: Todd D. Still
Associate Dean for Academic Affairs: W. Dennis Tucker, Jr.
Director of Ph.D. in Preaching: Scott M. Gibson

Program Description

The Ph.D. in Preaching program provides an opportunity for qualified students to engage in graduate work in the discipline of homiletics at the highest level. It provides preparation for research and teaching in undergraduate and graduate theological education and for the development of pastor-scholars. The Baylor program offers a rich study of preaching in relation to exegesis, history, theology, ecclesiology, homiletical structure and practice, and teaching.

Admission Requirements

Applicants will be required to have a Master of Divinity degree (or 72 hours of graduate credit from an accredited program) with a 3.5 or higher cumulative grade point average.

Students must submit the following items as part of the application process:

1. Provide **Graduate Record Exam (GRE) scores.**
2. Provide a **statement of purpose** of 7-10 pages (single-space) indicating rationale for pursuing graduate work in preaching.
3. Applicants will also be required to submit two **sermon manuscripts and recordings of two preaching events**.
4. Applicants will demonstrate their facility with the biblical languages by submitting exegetical papers for both sermons and by taking a **language competency exam** during the admissions process. One foreign language must be completed before the end of the first year of the program.

Until then, the student will be admitted on probation.

5. Applicants will provide a **sample of scholarly writing**. One example (not exceeding 25 pages double-spaced) of a recent work of scholarly writing that provides evidence of one's capacity to think analytically and critically about homiletics.
6. Applicants will provide a **resume or Curriculum Vitae**. *Include a list of publications and professional presentations*.
7. Applicants must have three to five years of **full-time pastoral/preaching ministry**.
8. Applicants will submit **official transcripts** of all degree work: undergraduate, master's degrees, and specifically the master of divinity degree (with a 3.5 or higher cumulative grade point average on a 4.0 scale) from a regionally accredited seminary or university.
9. Applicants will provide three **letters of recommendation**.

Degree Requirements

The Ph.D. in Preashing program has both residential and distance students. A Ph.D. in Preaching orientation will take place before the first seminar for each entering class. Total hours required for the Ph.D. in Preaching is 57 hours beyond the master's degree.

Given the hybrid structure of the program, students will enroll in two **one-week intensive** courses in the fall and two in the spring. Students will take two courses in one summer and one course in the two other summers. All Ph.D. seminars involve pre-seminar and post-seminar work, in addition to the hours in the classroom during the seminar. After three full years of course work, students will take comprehensive exams in the fall of the fourth year and begin work on a prospectus. The remainder of the program will be devoted to the dissertation. Students will satisfactorily complete a dissertation in accordance with guidelines provided by the Ph.D. in Preaching and by the Graduate School.

Students may take up to 9 hours in graduate programs external to Baylor University with the approval of the Director of the Ph.D. in Preaching program.

Other Requirements:

1. Prior to completion of their degree, all students will have a minimum of one article submitted for publication in a peer-reviewed scholarly journal.
2. Upon admission, if not already, students will become members of the Evangelical Homiletics Society and must attend the yearly Annual Meeting.

DEPARTMENT OF PSYCHOLOGY AND NEUROSCIENCE

Chairperson: Charles A. Weaver, III
Director of the Psy.D. Clinical Psychology Program: Gary R. Elkins
Director of the Ph.D. Psychology Program: Joaquin Lugo

Graduate Degrees in Clinical Psychology

The department offers two graduate degrees in clinical psychology: Doctor of Psychology (Psy.D.) and Master of Science in Clinical Psychology (M.S.C.P.).

Students are not admitted directly to the Master of Science in Clinical Psychology program. However, students admitted to the Psy.D. program will also pursue a Master of Science in Clinical Psychology degree. This program is available only to students who are initially admitted to the Psy.D. degree program. Students admitted to the Ph.D. in psychology are not permitted to pursue a Master of Science in Clinical Psychology degree.

The Psy.D. degree prepares students as practitioner scientists in clinical psychology. The program is fully accredited by the American Psychological Association. Formal course work is integrated with practicum and research experiences to produce highly qualified practitioners in this area of specialization. Admission to this program is made only at the beginning of the second six weeks of the summer session each year, and all application materials including a supplemental application (autobiography, a record of relevant experience), GRE General Test scores, and three letters of recommendation received on or before December 1 of the year prior to which the applicant wishes to begin.

MASTER OF SCIENCE
in Clinical Psychology

Admission

Applicants must be previously admitted to the Doctor of Psychology Program. The admission requirements are listed in the General Information section of this catalog.

Program of Study

Completion of all required courses through the Fall semester of the third year of study for the Doctor of Psychology degree, including completion of eighteen hours of Clinical and Research Practicum (PSY 5371, 5372) and fifteen courses. Completion of the first written doctoral comprehensive examination is required as well as current good standing in the Doctor of Psychology program. This program does not require a foreign language. The required courses for the Doctor of Psychology in Clinical Psychology program follow.

DOCTOR OF PSYCHOLOGY
in Clinical Psychology

Requirements for this degree are listed in the General Information section of this catalog. Policies and operating procedures for each of the above degrees are detailed in a program manual. The program manual is provided to each student upon enrollment. This program does not require a foreign language.

Program of Study (semester hours)

*PSY	5371	Clinical and Research Practicum I (three terms)	9
*PSY	5325	Ethics and Professional Issues in Clinical Psychology	3
*PSY	5316	Clinical Psychopathology	3
*PSY	5431	Psychological Assessment I	4
*PSY	5429	Psychotherapy I: Cognitive Behavior Therapy	4
*PSY	5423	Psychotherapy II: Advance Cognitive Behavior Therapy	4
*PSY	5432	Psychological Assessment II	4
*PSY	5372	Clinical and Research Practicum II (three terms)	9
*PSY	5333	Psychological Assessment III	3
*PSY	5335	Multicultural Issues	3
*PSY	5410	Psychopathology and Assessment of Children	4
*PSY	5321	Developmental Psychology or	
*PSY	5323	Biological Foundations of Behavior	3
*PSY	5344	History and Systems	3
**PSY	5373	Clinical and Research Practicum III (three terms)	9
*PSY	5339	Social-Organizational Psychology	3
*PSY	5301	Introduction to Experimental Design	3
PSY	5302	Measurement in Psychology	3
PSY	5317	Psychotherapy III: Seminar in Psychotherapy	3
PSY	5311	Seminar in Memory and Cognition or	
PSY	5330	Neuropharmacology	3
*PSY	5388	Advanced Statistical Methods	3
PSY	5428	Group and Systems Approaches to Psychotherapy	4
*PSY	5426	Psychological Treatment of Children and Adolescents	4
PSY	5334	Clinical Health Psychology	3
PSY	5370	Administration and Supervision	3
PSY	5V24	Individualized Professional Development and Research	3
PSY	6V01	Clinical Internship (three terms)	3
PSY	6V99	Dissertation (6 hours required)	6
Total Hours			115

**Required courses for M.S.C.P.*

*** Only 6 hours required for M.S.C.P.*

GRADUATE DEGREES IN PSYCHOLOGY

The department offers two graduate degrees in psychology: Doctor of Philosophy (Ph.D.) and Master of Arts (M.A.).

MASTER OF ARTS
in Psychology

Students are not admitted directly to the Master of Arts program. However, students admitted to the Ph.D. program may, with the approval of the faculty, pursue a Master of Arts degree. This option is available only to students who are initially admitted to the Ph.D. degree program. Students admitted to the Psy.D. program are not permitted to pursue a Master of Arts degree in psychology.

Non-Terminal M.A. in Psychology (students continuing in the doctoral program)

Students are encouraged to earn their M.A. in psychology by:

Completing the core courses marked with an asterisk (*),
Registration and completion of three additional hours of NSC/PSY 5V99, and
Proposing, completing, and defending a thesis.

M.A. requirements are usually completed by the second or third year of study.

Terminal M.A. in Psychology

In rare circumstances, a student admitted to the doctoral program may leave before completing all of the work required of the Ph.D. In exceptional cases, the student may be given the opportunity to complete a terminal M.A. in psychology. This terminal M.A. requires completion of at least five additional hours, taken from 5V51, 5V96 and/or electives, and may or may not require completing and defending a thesis, depending on the nature of the work and the decision of the psychology faculty and program director.

DOCTOR OF PHILOSOPHY
in Psychology

The doctoral program in Psychology has three training tracks; Behavioral Neuroscience, Social Psychology, and General Experimental Psychology. All Ph.D. students begin by taking a set of general core classes representing the breadth in the discipline of psychology. Differences in the tracks begin with the specialty core which is comprised of course work specific to Behavioral Neuroscience, Social Psychology, or General Experimental Psychology. Upon acceptance to doctoral candidacy, students in each track have a specific set of doctoral and elective classes from which to choose.

The Ph.D. program in psychology prepares students for university teaching/research, and applied positions in universities, hospitals, industry, or government. The program consists of course work, a qualifying examination, research leading to a doctoral dissertation, and a final oral examination. Students are admitted to the program only in the fall semester.

Students in the Ph.D. program in psychology at Baylor University are expected to acquire sufficient knowledge and expertise to permit them to work as independent scholars at the frontier of Psychology upon graduation. The Doctor of Philosophy degree is ultimately awarded to those individuals who have attained a high level of scholarship in a selected field through independent study, research, and creative thought.

Students entering the program with post-baccalaureate work or a post-baccalaureate degree from an accredited institution may apply a maximum of 12 semester hours of graduate course work toward the Ph.D. degree. These transfer hours must be approved by the major adviser and program director.

The program is designed to concentrate course work during the first three years of study, leading to the qualifying examination. Upon successfully passing the qualifying examination, students are admitted to Ph.D. candidacy, where course demands are minimal. This program does not require a foreign language.

General Core Courses (semester hours)

*NSC 5311	Seminar in Memory and Cognition	3
*PSY 5323	Biological Basis of Behavior	3
*PSY 5339	Social-Organizational Psychology	3
*PSY 5301	Introduction to Experimental Design	3
*PSY 5302	Measurement in Psychology	3
*PSY 5388	Advanced Statistical Methods	3
PSY 5384	Multivariate Statistical Methods	3

One from PSY/STA 5305 and PSY/STA 5390		3
NSC/PSY 5V51	Supervised Teaching	6
NSC/PSY 5V96	Research Methods	7
NSC/PSY 6V99	Dissertation	12

Specialty Cores and Doctoral Classes

Behavioral Neuroscience

*NSC 5330	Neuropharmacology	3
*NSC 5430	Neuroanatomy	4
*NSC 5V71	Selected Topics in Neuroscience	3
*NSC 5V96	Research Methods	4
Two of the following: (NSC 5318, NSC 5319, NSC 5320, NSC 5360, NSC 5V71)		6

Social Psychology

*PSY 5350	Advanced Personality Theory	3
*PSY 5437	Social Psychology and Group Dynamics	4
*PSY 5V71	Selected Topics	3
*PSY 5V96	Research Methods	4
Two of the following: (PSY 5334, PSY 5305, PSY 5321, PSY 5V71)		6

General Experimental Psychology

Two of the following: (NSC 5318, NSC 5319, NSC 5320, NSC 5360, PSY 5305, PSY 5321 PSY 5334, PSY 5431, PSY 5432)		6
*PSY 5V71	Selected Topics in Psychology	3
*PSY 5V96	Research Methods	5
*Two of the following (Must be different than the specialty core): (NSC 5318, NSC 5319, NSC 5320, NSC 5330, NSC 5360, NSC 5430, PSY 5305, PSY 5321, PSY 5334, PSY 5350, PSY 5431, PSY 5432, PSY 5437, PSY 5V71)		6

Minor[1]	9
Total Hours	**78**

**Required Courses for M.A.*

1 With approval of the major advisor and graduate director, a student may elect not to declare a minor. In such cases, the student must take at least nine hours of electives.

Electives

NSC 4312	Behavioral Medicine
NSC 4330	Behavioral Neuroscience
PSY 4339	Psychology of Religion
NSC 5V06	Individual Studies in Neuroscience
PSY 5V06	Individual Studies in Psychology
NSC 5V71	Selected Topics in Neuroscience
PSY 5V71	Selected Topics in Psychology
STA 5305	Advanced Experimental Design
STA 5307	Advanced Statistics II
PSY 5313	Advanced Measurement in Psychology
STA 5315	Quantitative Psychology
PSY 5321	Developmental Psychology
PSY 5380	Multidimensional Scaling
STA 5386	Exploratory Factor Analysis
STA 5389	Mathematical Models in Psychology

With the consent of the Graduate Program Director, elective courses may be taken in other departments, provided the course has graduate standing.

Policies and operating procedures for each of the above degrees are detailed in a program manual provided to each student upon enrollment.

DEPARTMENT OF PUBLIC HEALTH

Chairperson: Eva I. Doyle
Graduate Program Director: M. Renée Umstattd Meyer
MPH@Baylor (online) **Director:** Jasmine Opusunju

The Department of Public Health is home to all accredited public health degree programs (undergraduate and graduate) at Baylor University. Students in these programs are prepared for public health practice and research in a variety of work settings. Our graduates promote health in local and global settings as they work in government-sponsored public health agencies, nonprofit organizations, university and corporate wellness programs, and population health programs in healthcare settings.

Degree Options

At the graduate level, we offer a master of public health (MPH) degree. This degree program contains *three* concentration (specialization) options (and a joint-degree option) from which students may choose in the *on-campus* program and *one* concentration in the *online* program.

On-Campus Options

- MPH in Community Health
- *Joint degree*: Bachelor of Science in Public Health/MPH in Community Health
- MPH in Epidemiology
- MPH in Environmental Health Science (*in partnership with the Department of Environmental Science*)

Online Option

- MPH in Community Health

Initial Contacts

All components of the graduate degree program are the ultimate responsibility of the Graduate Program Director (GPD) and Chairperson of the Department of Public Health. However, each degree option is directed by a different faculty member. Students interested in the on-campus program should contact the GPD for general informatin and the name of the director for a specific concentration. Students interested in the online program should contact the *MPH@Baylor* Director for information specific to the online program.

MPH ON-CAMPUS

Degree Scope

Full-time students in the *MPH on-campus* degree program usually begin in the fall semester and complete the degree within 18 months. The total number of required credit hours ranges from 42 to 43 credit depending on the concentration. The required courses include a set of core MPH courses required of all MPH students regardless of concentration and some concentration-specific courses and requirements. All MPH students progress through a prescribed sequence of courses designed to introduce them to basic public health concepts and gradually build practice-relevant perspectives, skills, and experience.

Required Practice Experience and Culminating Project

Students in each concentration of the on-campus MPH program must complete a practice experience and an applied culminating project relevant to the professional practice of that concentration. In some concentrations, the student must complete a practice experience (e.g., practicum) midway through the program and a culminating project (thesis, capstone project, internship) in the final semester of the program. In other concentrations, the student completes both (practice experience and culminating project) in the final semester. Students should contact the director of their concentration for requirement details and plan well in advance for this essential element of their professional preparation in public health.

Admission to MPH On-campus Program

Prospective students seeking admission into the on-campus MPH program must initiate the application process through a national public health application system called SOPHAS (sophas.org). Visit the SOPHAS website and follow application instructions. Contact the GPD of our department if you have questions.

Applicants must meet the admission requirements of the Baylor Graduate School for full or probationary status. The GRE General Test is required with a combined total score of 300 (quantitative + verbal) serving as a starting point for consideration. (At least a 50th percentile ranking in each exam area is preferred). An analytical writing score of 4.0 or higher is also preferred. International students must meet Baylor Graduate School standards for applicable language testing and scores.

MASTER OF PUBLIC HEALTH DEGREE (ON-CAMPUS)
COMMUNITY HEALTH CONCENTRATION

Required:			sem. hrs.
Required Public Health Core (18 credit hours)			
PUBH	5001	Professional Seminars in Public Health	3
STA	5300	Statistical Methods*	3
PUBH	5302	Fundamentals of Environmental Health Science ***or***	3
ENV	5302	Fundamentals of Environmental Health Science	3
PUBH	5315	Theoretical Foundations of Health Behavior & Public Health	3
PUBH	5334	Foundations of Public Health	3
PUBH	5337	Public Health Concepts in Epidemiology	3
PUBH	5378	Administration and Leadership in Public Health	3
Additional Required Courses (15 credit hours)			
PUBH	5329	Current Health Issues ***or***	
PUBH	4340	Global Health	3
PUBH	5350	Assessment and Planning in Public and Community Health	3
PUBH	5360	Evaluation in Public and Community Health	3
PUBH	5379	Research Methods	3
PUBH	5V94	Public Health Practicum*	3
Restricted Elective (3 credit hours, choose one*)			**3**
PUBH	4321	Human Sexuality	
PUBH	4327	Dying and Death Education	
PUBH	4331	Intervention Design in Health Education	
PUBH	4341	Cross-Cultural Health Communication	
PUBH	5370	Physical Activity and Public Health	
PUBH	5348	Applied Data Analysis for Epidemiology and Population Health**	
FCS	5351	Nutrition and Aging	
FCS	5354	Nutrition in Public Health	
SOC	5332	The Sociology of Health: Health Delivery Systems	
Required Culminating Experience*			
PUBH	5V90	Public Health Internship ***or***	
PUBH	5V99	Thesis	6
		Total	42

*Requires official approval
**Recommended for thesis students

BSPH/MPH IN COMMUNITY HEALTH JOINT DEGREE

(On-Campus)
Dr. M. Renée Umstattd Meyer and Dr. Beth A. Lanning, Co-Directors

The BSPH/MPH joint program is a 5-year program of study. This joint degree program enables qualified students to obtain a Bachelor of Science in Public Health (see undergraduate catalog) and a Master of Public Health in Community Health Education in a minimum of five years of full-time study. All requirements for both the BSPH and MPH must be met, and the degrees are awarded concurrently.

Admission

Undergraduate students in the BSPH program can apply for the BSPH/MPH joint program at the end of their junior year. Applicants must be BSPH majors and have a GPA of 3.2 or higher in the major prior to applying for the program. The applicants must obtain approval of the undergraduate BSPH advisor and program director, the MPH program director, and the GPD. Applicants must be admitted under provisional status until they have completed at least one semester of graduate work. Students will also be required to take the GRE before being admitted into the program and meet all requirements for entry into the Baylor Graduate School as an MPH student. The BSPH degree will be awarded with the MPH upon completion of all degree requirements. Students who decide to withdraw or who do not maintain a 3.2 will be allowed to finish the BSPH but will have admission to the graduate MPH degree program cancelled, and any graduate work completed will appear on the undergraduate transcript and will count on the bachelor's degree. These students will not be allowed to re-enter the

joint degree program at a later date.

Requirements

A maximum of 15 credits of MPH-level course work will count toward both degrees. These 15 credit hours include the following MPH courses, which are already embedded as requirements in the 42-credit hour MPH degree.

PUBH 5337 Public Health Concepts in Epidemiology (3 credit hours)
PUBH 5350 Assessment and Planning in Public and Community Health (3 credit hours)
PUBH 5360 Evaluation in Public and Community Health (3 credit hours)
PUBH 5V94 Public Health Practicum (3 credit hours, permission required)
PUBH 5V90 Public Health Internship (6 credit hours, permission required)

Though other students in the MPH program have the option of completing a thesis instead of the final 400-hour internship, students in the joint program must complete the 400-hour internship to satisfy contact hour requirements from the national accrediting body for the undergraduate portion of the joint degree. **Joint degree students are strongly encouraged to complete as many undergraduate courses as possible prior to beginning MPH courses and to take no more than one undergraduate course per semester while taking MPH courses.** Students are encouraged to contact appropriate advisors in each program for further details.

MASTER OF PUBLIC HEALTH DEGREE (ON-CAMPUS) *EPIDEMIOLOGY* CONCENTRATION

Required:			sem. hrs.
Restricted Public Health Core (18 credit hours)			
PUBH	5001	Professional Seminars in Public Health	3
STA	5300	Statistical Methods*	3
PUBH	5302	Fundamentals of Environmental Health Science ***or***	
ENV	5302	Fundamentals of Environmental Health Science	3
PUBH	5312	Theoretical Foundations of Health Behavior and Public Health	3
PUBH	5334	Foundations of Public Health	3
PUBH	5337	Public Health Concepts in Epidemiology	3
PUBH	5378	Administration and Leadership in Public Health	3
Additional Required Courses (21 credit hours)			
PUBH	5338	Methods in Epidemiology	3
PUBH	5347	Global Health Epidemiology	3
PUBH	5348	Applied Data Analysis for Epidemiology and Population Health	3
PUBH	5350	Assessment and Planning in Public and Community Health	3
PUBH	5379	Research Methods	
PUBH	5V94	Public Health Practicum	
EDP	6362	Applied Multiple Regression and Correlation Analysis in Education	3
Required Culminating Experience* (3 credit hours)			
PUBH	53XX	Epidemiology Capstone (*approval pending*)	3
		Total	42

MASTER OF PUBLIC HEALTH DEGREE (ON-CAMPUS)
ENVIRONMENTAL HEALTH SCIENCE CONCENTRATION

Required:			sem. hrs.
Required Public Health Core (19 credit hours)			
ENV	5102	Current Advances in Environmental Science	1
STA	5300	Statistical Methods*	3
PUBH	5302	Fundamentals of Environmental Health Science ***or***	
ENV	5302	Fundamentals of Environmental Health Science	3
PUBH	5315	Theoretical Foundations of Health Behavior and Public Health	3
PUBH	5334	Foundations of Public Health	3
PUBH	5337	Public Health Concepts in Epidemiology	3
PUBH	5378	Administration and Leadership in Public Health	3
Additional Required Courses (15 credit hours)			
ENV	4325	Human Health Risk Assessment	3
ENV	4334	Fundamentals of Toxicology	3
ENV	4335	Water Management	3
PUBH	5350	Assissment and Planning	3
NUTR	5354	Nutrition in Public Health	3
Restricted Elective (3 credit hours, choose one*)			**3**
BIO	5315	Genomics and Infectious Diseases	
BIO	4354	Neglected Tropical Diseases	
ENV	4318	Heavy Metals and Global Public Health	
ENV	4485	Introduction to Geographic Information Systems	
ENV	5288/5188	Advanced Laboratory Methods in Life Sciences	
ENV	5301	Global Health & Environmental Aspects of Disaster Risk Reduction	
ENV	5303	Environmental Chemical Analysis	
PUBH	4340	Global Health	
PUBH	4355	Human Diseases	
Restricted Culminating Experience* (6 credit hours)			
ENV	5V90	Graduate Environmental Practicum	3
ENV	5V99	Research for Master's Thesis	3
		Total	42

MPH@BAYLOR ONLINE

The Department of Public Health offers an online MPH degree through the MPH@Baylor program. Only one concentration is currently offered through this online program, an MPH in Community Health. This 42-credit hour program can be completed between 12-24 months. The program includes one required 2-credit-hour immersion experience in which students come to the campus of Baylor University in Waco, Texas, for a weekend of invaluable interaction with peers and professors, training in interprofessional collaboration skills, and early-stage training needed to begin developing ideas for the culminating graduate project that students must complete toward the end of the degree program. The culminating project, which includes the completion of a 150-hour internship, may be completed in an approved organization/agency and location. All courses, with the exception of the 2-credit hour immersion experience, are offered and completed fully online.

Courses in the online program are offered on a quarter system with course start dates occurring in January, April, July, and October. Students may enroll in 1-4 courses per quarter with 2 courses per quarter considered full-time. Students can choose to complete the program on a full-time or part-time basis. The time to complete varies based on the chosen track:

- Full-time, accelerated: 12 months
- Full-time; standard: 18 months
- Part-time: 24 months

Admissions Requirements for Online MPH

Applicants to the online MPH in Community Health program must have earned a Bachelor`s degree from an accredited institution in the United States, or proof of equivalent training at a foreign university. Additionally, **applicants must have earned a bachelor's degree with a GPA that demonstrates strong academic success, which is normally 3.0 or higher.**

There is no GRE requirement for this program. However, the GRE is strongly recommended for applicants with less than 3 years of work experience OR who have not previously attained a Master's degree. Additionally, an optional essay will be available in the application for these candidates to state why previous coursework or work experience prepares them for the quantitative aspect of the program. Scores from the following exams can also be accepted: MCAT, LSAT, DAT, GMAT.

The admissions team accepts and reviews applications year-round on a rolling basis. Successful applicants possess backgrounds that demonstrate an ability to apply critical thinking skills to solve problems, collaborate with others and work on multidisciplinary teams, understand the importance of data-driven decision making, and embrace the significance of community engagement and cultural relevance in the health promotion process.

All applicants must submit the online application, a $50 application fee, a resume/curriculum vitae, official transcripts from accredited institutions, three letters of recommendation, and a personal statement.

MPH Online Degree Plan (Full-Time, Standard–18 months)

Required:		sem. hrs.
Quarter 1 (6 credit hours)		
PUBH 5315	Theoretical Foundations of Health Behavior and Public Health	3
PUBH 5334	Foundations of Public Health	3
Quarter 2 (6 credit hours)		
PUBH 5337	Public Health Concepts in Epidemiology	3
PUBH 5350	Assessment and Planning in Public and Community Health	3
Quarter 3 (8 credit hours)		
PUBH 5379	Evaluation in Public and Community Health	3
STA 5300	Statistical Methodology	3
PUBH 52XX*	Public Health Immersion Experience	2
Quarter 4 (6 credit hours)		
PUBH 5360	Evaluation in Public and Community Health	3
PUBH 5378	Administration and Leadership in Public Health	3
PUBH 53XX	Elective**	
Quarter 5 (6 credit hours)		
PUBH 5302	Fundamentals of Environmental Health Science	3
PUBH 53XX	Elective**	3
Quarter 6 (7 credit hours)		
PUBH 54XX	Public Health Internship**	3
PUBH 53XX	Elective	3
	Total	42

**"XX" indicates final approval pending for course/number. Check with program director for actual course number.

**A total of 3 electives are required and must be selected from the following courses:
PUBH 5329 Current Topics in Public Health
PUBH 53XX Global Public Health
PUBH 53XX Determinants of Health and Health Equity
PUBH 53XX Public Health Policy and Practice
PUBH 53XX Practicum
***Internship approval required

DEPARTMENT OF RELIGION

Chairperson: W.H. Bellinger, Jr.
Graduate Program Director: James D. Nogalski

The Department of Religion has offered graduate work since 1966. Both the university and the department are friendly to faith and to the church and thus provide a setting distinctive in American higher education. The graduate faculty in religion is committed to forming graduate students in the scholarly tasks of research and teaching. That agenda, along with an increasingly impressive cohort of graduate students, creates a lively context for graduate studies in religion. Visit the program's website: www.baylor.edu/religion/graduate

The graduate program in religion is designed to offer a range of educational opportunities for the serious student of religion. Various programs at both the Master of Arts and Doctor of Philosophy levels are structured to meet diverse needs and objectives.

MASTER OF ARTS

Admission

For admission to study toward a Master of Arts in religion, students must have completed a minimum of eighteen hours in the classical disciplines in which we offer graduate seminars (Old Testament, New Testament, Historical Studies, and Theological Studies), including nine hours of 3000- to 4000-level courses. Certain courses in closely related fields may apply with the approval of the Graduate Administrative Committee in religion. Admission to this program of study shall follow the policy of admission described elsewhere in this graduate catalog. Applicants must present grade-point averages and Graduate Record Examination General Test (GRE) scores that are predictive of success in the program. An applicant's academic record must be high in quality and broad in content. It must be of such quality as to give positive evidence of capacity for graduate study and a genuine scholarly interest. Those seeking admission into the M.A. program will need intermediate competence (at least two semesters or the equivalent) in ancient languages if required by the field to which they are applying.

Curriculum

For a description of the program for the degree (courses, thesis, examination), see the General Information section of this catalog. The Religion M.A. requires 30 semester hours. If one opts to write a thesis, the M.A. includes 27 semester hours of course work and three semester hours of thesis credit. Students, in consultation with their area faculty, may opt to complete a non-thesis M.A. by taking an additional seminar at the 5000-level in their area of study in their final semester. The non-thesis M.A., then, includes all 30 hours in course work.

Intermediate proficiency in one foreign language is a requirement for the M.A. Methods for achieving the proficiency are described earlier in this catalog under Specific Degree Requirements for the M.A. The foreign language used to satisfy the requirement is determined by the Graduate Program Director in consultation with the student's faculty advisor.

The M.A. program is designed for the student with adequate background in religion who wants to pursue intensive study and research within one of the four major divisions (Old Testament, New Testament, Historical Studies, and Theological Studies). In consultation with the student's faculty advisor and the Graduate Program Director in Religion, a program of study centered in one of the departmental divisions can be designed. In this program, the student may be permitted to take as many as six semester hours outside the Department of Religion, if these courses contribute directly to the student's specialized interest.

Related Opportunities

Opportunities are available for M.A. students in other programs at Baylor to include a religion component in their studies.

The department also offers a non-thesis route to the M.A. With the approval of the faculty, Ph.D. students who are not able to complete the dissertation may pursue the non-thesis M.A. Contact the Graduate Program Director in Religion for details.

DOCTOR OF PHILOSOPHY

The Doctor of Philosophy with a major in religion provides an opportunity for qualified students to do graduate work in this discipline at the highest level and in the university setting. It provides preparation for research and teaching in the college and university setting where religion is taught as

one of the liberal arts and in relation to other such disciplines, particularly the humanities, the social sciences, and the natural sciences.

Admission

Admission to doctoral study requires an M.A. degree or its equivalent. The M.A. must be an accredited degree in religion. By "equivalent" is meant approximately thirty semester hours of accredited graduate work in religion at the degree level of M.A., B.D., or M.Div., for example. International students must meet the minimum University requirement on the TOEFL examination for admission to the graduate program. They must also meet other regular admission procedures.

Before enrollment for doctoral study, each student's total record will be reviewed by the graduate faculty of the Department of Religion through its graduate admissions committee. Approval will be based on each student's record including:

1. B.A. work (both quality and content).
2. M.A. or equivalent (both quality and content). The applicant must submit a GPA predictive of success in the program.
3. Graduate Record Examination General Test (GRE) scores.
4. Academic letters of reference.
5. Writing samples.
6. An autobiographical essay.
7. An interview.

Admission to doctoral study presupposes a broad foundation in biblical, historical, and theological disciplines. Upon application for admission to doctoral study, students must specify one division as their major area of concentration: Old Testament Studies, New Testament Studies, Historical Studies, or Theological Studies. In the review of their record, special attention will be given to their foundation in that area. Applicants in Old Testament or New Testament studies must have completed a minimum of twelve (12) semester hours of one biblical language (Greek or Hebrew) and (6) semester hours in the other, with a grade of B or above in the last semester of each language.

The deadline for the completion of applications for doctoral admission and for financial assistance is December 1. Those admitted typically begin language courses in the summer and doctoral course work in the fall semester.

Course Requirements

For the Ph.D. in religion, fifty-seven hours are required, which includes nine hours of dissertation credits and forty-eight hours of course work. The course work includes a minimum of thirty-three semester hours in a field of concentration (Old Testament, New Testament, Historical Studies, Theological Studies); nine hours in a cognate area, and six hours of elective courses.

Concentration: The Ph.D. program requires thirty-three semester hours (minimum) in one of the four fields declared as the concentration field. All courses in the field of concentration must be at the 5000-level.

Cognate: A total of nine semester hours (minimum) must be at the 5000-level in a cognate field (Old Testament/New Testament; Historical Studies/Theological Studies/Historical Theology).

Elective Courses: A total of six semester hours (minimum) taken at the 4000 or 5000-level within the Religion Department or outside the department, but not in the concentration or the cognate area.

Course work Requirements (48 hours)

Religion Concentration	Cognate	Elective Courses
33 hours: 6 hours colloquia (6 one-hour courses) 27 hour emphasis (9 three-hour, 5000-level seminars)	9 hours: 5000-level courses in Cognate field	6 hours: Outside Religion Dept. or within, but not in the Concentration or Cognate field

Foreign Languages

The requirement of foreign languages as research tools is related to the concentration field of study and to research needs. The basic requirement is intermediate proficiency in two foreign languages. Methods for achieving the proficiency are described earlier in this catalog under Specific Degree Requirements for the Ph.D. The following statements indicate the basic policy in each area:

Old Testament Studies, New Testament Studies: The requirement is German and French. The area faculty may approve the substitution of another language for French if the student's research needs justify the substitution.

Historical Studies: Students concentrating in Historical Studies will achieve intermediate proficiency in two of the following: German, French, or Latin.

Theological Studies: The requirement is German and French. The area faculty may approve the substitution of another language for French if the student's research needs justify the substitution.

Additional language study may be required in relation to research needs.

One language must be completed before the beginning of course work, and the faculty recommends that all language work be completed in summer sessions. All foreign language requirements must be completed before students begin the last twenty-four semester hours of course work.

Preliminary Examinations

The preliminary examinations will come at the completion of course work (see the General Information section of this catalog). The examinations are described in a program guide that is provided to each student by the Department of Religion.

Admission to candidacy for the Ph.D. with a major in religion will follow the policy related to passing the foreign language examinations, the preliminary examinations, submission of an approved prospectus and certification by the Dean of the Graduate School.

Dissertation

The final stage in the doctoral work is the satisfactory completion of a dissertation. Nine semester hours of dissertation credit are required along with a final oral examination on the dissertation.

SCHOOL OF SOCIAL WORK

Dean: Jon E. Singletary
Associate Dean for Academic Affairs: David Pooler
Associate Dean for Research and Faculty Development: Holly Oxhandler
Ph.D. Co-Directors: Robin K. Rogers and James W. Ellor

DOCTOR OF PHILOSOPHY

The Doctor of Philosophy degree requires a minimum of 51 hours of course work plus 9 hours of dissertation and is designed to prepare academic and professional leaders in social work. The course work schedule is sensitive to the professional demands of adult learners, making it possible for students to remain in their current location and employment, if they choose to do so. The main goal guiding the curriculum of this innovative program is to develop leaders and educators who can lead visionary social work education or service programs and conduct original research addressing the complex social issues of our world. The program provides a distinct focus on the integration of religion and faith with the ethics, values, and practices of the social work profession.

The Online Program Design

The curriculum is designed to be taught primarily in an online classroom using high definition videoconferencing technology. Each cohort of students will begin classes in late May to early June with a required five-day session on campus in Waco, Texas, to enable students and faculty to get to know each other and to introduce the coursework of the program. Throughout the program students will attend all of their classes in a synchronous-format, online classroom on a weekly basis. Classes will meet on Monday and Thursday evenings from 6:00 to 9:00 p.m. CST. Classes will be conducted much as they would be on campus, except that students will be anywhere in the world.

Admission to Doctoral Program

Admission to the Graduate School of Baylor University and the PhD program in Social Work is conducted by formal application. The admissions committee admits up to seven students every other year through a highly selective process. The committee selects students who have a clear interest in developing theory, policy and research skills in a substantive area relevant to the field of social work, a superior academic record in all previous work, and maturity, intellectual ability, and readiness for doctoral study. The doctoral committee will specifically look at the critical factors below that are deemed important for success in graduate studies. Documents with information about these factors are part of the application process.

Admissions Process

All applicants must submit an application fee to the Graduate School. Options for submitting payment

will be presented when you submit your online application. When the electronic application is submitted, an email is immediately sent to the applicant with instructions about paying the application fee. The following items must be submitted/completed as part of your online application to the Baylor University Graduate School:

1. Graduate Record Exam (GRE) scores
   Foreign national and permanent resident applicants submit English as a Foreign Language (TOEFL) scores as well as GRE scores.

2. An electronically submitted personal statement of 7-10 pages that:
   - Explains your motivation for and expectations of doctoral education in social work
   - Includes particular assets that you would bring to the school and to the profession as well as areas in which you would most like to grow academically and professionally
   - Specifies your areas of academic and research interests
   - Describes briefly your understanding of integration of faith and ethical social work practice, supported by existing literature
   - Demonstrates scholarship potential

3. Sample of scholarly writing
   One example (not exceeding 25 pages) of a recent work of scholarly writing that provides evidence of your capacity to think analytically and critically about a social welfare issue. The following are examples of appropriate submissions:
   - Published article, book chapter, or excerpt from a published work
   - Unpublished research report
   - A paper written in a graduate level course
   - Grant application that includes significant reflective writing
   - Policy analysis
   - A 7-10 page paper on a topic of interest to the applicant that is written specifically as the writing sample for the application.

4. Resumé or Curriculum Vitae
   Include a list of publications and professional presentations.

5. A transcript of a master's degree from an accredited university
   A Master of Social Work from a CSWE accredited program is preferred but not required. For those without an MSW degree, it is preferred that they have a master's degree in a related field and experience working in social service settings. Exception: Applicants from countries without university accreditation and with exceptionally strong credentials.

6. Three letters of recommendation
   At least two references should come from academic faculty who can attest to the applicant's superior ability and potential. A third reference should come from a supervisor, director or someone that could provide insight into the applicant's ability and achievement in social work to date.

7. School of Social Work financial aid letter
   The program awards financial aid based on the strength of the student's application and financial need. For students choosing to live in Waco, merit-based research and teaching assistantships may also be available. This financial aid letter, which can be uploaded as part of the electronic application, needs to address the following questions:
   - How do you anticipate paying for expenses related to the PhD program?
   - How much financial assistance are you requesting from the Garland School of Social Work?

   Upon review of all the information, faculty teaching in the PhD program may contact prospective students for a personal interview. This interview will be of sufficient length to allow the applicant as well as the faculty to make an informed decision about admission.

Ph.D. Program- Standard Plan

Year 1: Summer Semester **6 hrs.**
SWO 6384 Proposal Seminar
SWO 6351 Theory and Model Development for Social Work Practice

Year 1: Fall Semester **6 hrs.**
SWO 6380 Quantitative Research for Social Work
SWO 6382 Qualitative Research for Social Work

Year 1: Spring Semester **6 hrs.**
SWO 6333 Religious and Cultural Diversity
SWO 6381 Statistical Analysis for Social Work

Year 2: Summer Semester **6 hrs.**
SWO 6387 Research Practicum
SWO 6332 Social Policy and the Religious Sector

Year 2: Fall Semester **6 hrs.**
SWO 6385 Measurement in Social Work
SWO 6386 Advanced Qualitative Research

Year 2: Spring Semester **6 hrs.**
SWO 6342 Academic Leadership & Administration in Social Work Education
SWO 6331 Christianity, Ethics, and Social Work

Year 3: Summer Semester **6 hrs.**
SWO 6352 Higher Educational Teaching and Learning in Social Work
Elective

Year 3: Fall Semester **6 hrs.**
SWO 6353 Teaching Practicum
SWO 6343 Program Evaluation

Year 3: Spring Semester **3 hrs.**
Elective

Year 4: Summer Semester* ** **9 hrs**.
SWO 6V99 Dissertation

Total **60 hrs.**

Comprehensive Examinations

1. **Research**
SWO 6380 Quantitative Research for Social Work
SWO 6381 Statistical Analysis for Social Work
SWO 6382 Qualitative Research for Social Work
SWO 6384 Proposal Seminar
SWO 6385 Measurement in Social Work
SWO 6386 Advanced Qualitative Research
SWO 6387 Research Practicum

2. **Faith in Practice**
SWO 6331 Christianity, Ethics, and Social Work
SWO 6332 Social Policy and the Religious Sector
SWO 6333 Religious and Cultural Diversity
SWO 6351 Theory and Model Development for Social Work Practice

3. **Teaching and Leadership**
SWO 6342 Academic Leadership and Administration in Social Work Education
SWO 6343 Program Evaluation
SWO 6352 Higher Educational Teaching and Learning in Social Work
SWO 6353 Teaching Practicum

All three comprehensive exams must be passed prior to enrolling in SWO 6V99.

Dissertation

Candidates for the Doctor of Philosophy degree must present an acceptable dissertation on a problem in the field of their major subject. The dissertation must give evidence that the candidate has pursued a program of research, the results of which reveal scholarly competence and a significant contribution to knowledge.

The PhD Dissertation will focus on a single cohesive theme, consist of one document, and have a single defense. The dissertation document consists of five chapters: an introductory chapter, three publishable articles, and a final chapter that intergrates the document into a coherent whole. Each article must include a substantive review of the literature, and one of the articles may be a Systematic Research Synthesis of the literature. Two articles will incorporate data from the student's research with one article using findings from quantitative analysis and the other findings from qualitative analysis. The final article can be a theoretical or an additional research article. A key Graduate School document is *Guidelines to Preparing the Dissertation and Thesis* that contains the procedures to complete the dissertation, an explanation of necessary forms, the semester calendar, and an explanation of fees associated with the process. Additional instructions will be provided to students when they file for graduation.

DEPARTMENT OF SOCIOLOGY

Chairperson: F. Carson Mencken
Graduate Program Director: Kevin D. Dougherty

GRADUATE DEGREES IN SOCIOLOGY

The department offers two graduate degrees in sociology: the Doctor of Philosophy (Ph.D.) and the Master of Arts (M.A.).

Although students are admitted directly to the Doctor of Philosophy (Ph.D.) program, they will pursue a Master of Arts in sociology. The M.A. program is available only to students who are initially admitted to the Ph.D. program. Students entering the program with graduate level work or a graduate degree from an accredited institution will have that work evaluated by the admissions committee and have a maximum of twelve semester hours of graduate course work applied toward their graduate work at Baylor University.

The hree major tracks in the doctoral program are community analytics, health and society, and sociology of religion. The first two years of the program have roughly the same requirements for all areas of emphasis. During the last three years students move into the more specialized areas. Students in community analytics work at the Center for Community Research and Development (CCRD) with faculty on client-oriented research.

Admission Requirements:

- B.A. (or equivalent)
- GPA and GRE General Test scores predictive of success in this graduate program
- Personal statement of interest
- Three letters of recommendation
- An interview with the graduate admission committee, usually during recruitment event in February-March
- Expressed areas of academic/research interests compatible with those of the faculty

At the end of the second year, students are expected to have completed research resulting in a journal article or its equivalent. This paper is regarded as a Master's thesis equivalent.

Master of Arts

The Master of Arts degree is thirty hours comprising the core training courses in theory and research methods to prepare students for the Ph.D. degree. Students are admitted to the Ph.D. program with the requirement of earning an M.A. degree during the first two years.

At the completion of the M.A. degree, students will be evaluated by the Graduate Faculty to recommend continued funding of their education. In addition, students who fail to complete the M.A. degree by the start of the fall semester in the third year will not be considered for further financial support. Students seeking a terminal M.A. degree will not be admitted.

Primary			**12 sem. hrs.**
SOC	5312	Social Science Data Analysis	3 sem. hrs.
SOC	5391	Advanced Sociological Theory	3 sem. hrs.
SOC	5342	Data Sources and Publishing in the Sociology of Religion	3 sem. hrs.
STA	5384	Multivariate Statistical Methods	3 sem. hrs.
Secondary Courses			**9 sem. hrs.**
SOC	6V97	Seminar in Teaching (Part 1)	3 sem. hrs.
SOC	5V99	Thesis	6 sem. hrs.
Elective Courses			**9 sem. hrs.**
Sociology courses approved by department			

DOCTOR OF PHILOSOPHY

Requirements

The Ph.D. is an eighty-four semester-hour program, with fifty-four semester hours beyond the master's degree. The Ph.D. hours include twelve hours of dissertation and six hours of supervised teaching. Students must successfully complete the requirements for the M.A. degree in the process of pursuing a Ph.D. Course work includes a standard set of courses (6 hours) in research methods and theory, as well as 36 hours of core courses in the appropriate area of emphasis. There is no foreign language requirement for this program. The Department of Sociology currently offers three areas of concentration: community analytics, health and society, and sociology of religion.

Community Analytics

The curriculum in community analytics brings together substantive seminars in community, demography, regional economic development, family, and population health, as well as hands-on practical training doing applied research for local, regional and state entities. Graduates from our program are highly trained in mail, telephone, and web-based survery methodology, need assessment, interviewing and focus group research skills, demographic modeling, GIS, and the ability to use major statistical techniques and programs to analyze and interpret the results of such research.

Students in the community analytics track work at the Baylor Center for Community Research and Development (CCRD). The CCRD is a multi-disciplinary/method laboratory in which sociologists perform most of the research, while experts from varying fields lend their support. Students learn to apply sociological methods to real-life settings and gain an understanding of an exceptional model for relations between community and academia.

Curriculum in the community analytics area of emphasis includes:

Primary			**9 sem. hrs.**
SOC	6303	Telephone Surveys	3 sem. hrs.
SOC	6310	Mail Surverys	3 sem. hrs.
SOC	5320	Seminar on the Community	3 sem. hrs.
SOC	6345	Regional Processes	3 sem. hrs.
SOC	6317	Community Spatial Analysis	3 sem. hrs.
Secondary			**12 sem. hrs.**
SOC	6V97	Seminar in Teaching (Part 1)	3 sem. hrs.
SOC	6314	Advanced Quantititative Analysis	3 sem. hrs.
SOC	6390	Writing Practicam	6 sem. hrs.
Electives			**21 sem. hrs.**
Sociology courses approved by department			
Dissertation			**12 sem. hrs.**
SOC	6V99	Dissertation	12 sem. hrs.
Total (including 30 sem. hrs. of M.A.)			**84 sem. hrs.**

Sociology of Religion

The Department of Sociology at Baylor University is recognized for its distinction in training sociologists of religion. Home to numerous leading sociologists of religion and the ongoing Baylor Religion Survey. Baylor is a place where scholars thrive. The curriculum in the sociology of religion

track brings together seminars of substantive interest, advanced methodological training and independent research. Students are prepared to enter the academic job market through a hands-on process of professional socialization.

Curriculum in the sociology of religion area of emphasis includes:

Primary			**9 sem. hrs.**
SOC	5341	Introduction to the Sociology of Religion	3 sem. hrs.
SOC	5342	Data Sources and Publishing in the Sociology of Religion	3 sem. hrs.
SOC	5343	Theory in the Sociology of Religion	3 sem. hrs.
SOC	6332	The Sociology of Religious Organizations	3 sem. hrs.
SOC	6336	Religion, Race, and Gender	3 sem. hrs.
Secondary			
SOC	6V97	Seminar in Teaching (Part 2)	3 sem. hrs.
SOC	6390	Writing Practicum	6 sem. hrs.
SOC	6314	Advanced Quantitative Analysis	3 sem. hrs.
Electives			**21 sem. hrs.**
Sociology courses approved by department			
Dissertation			**12 sem. hrs.**
SOC	6V99	Dissertation	12 sem. hrs.
Total (including 30 sem. hrs. of M.A.)			**84 sem. hrs.**

Health and Society

The health and society area of emphasis focuse on understanding of how social forces and structures are linked to human well-being. As a transdisciplinary area of study, health and society infuses sociological theories and principles with allied work in public health, epidemiology, and gerontology. Social mechanisma are emphasized to illuminate the roles of biology, genetics, and stress in evolving levels of mental and physical well-being across the life course. Students learns to use advanced quantitative methods to address key population health issues.

Curriculum in the health and society area of emphasis includes:

Primary			**9 sem. hrs.**
SOC	5332	Sociology of Health	3 sem. hrs.
SOC	6351	Population Health	3 sem. hrs.
SOC	6357	Health Inequalities in America	3 sem. hrs.
SOC	5354	Seminar in Family Sociology	3 sem. hrs.
Secondary			**12 sem. hrs.**
SOC	6V97	Seminar on Teaching (Part 2)	3 sem. hrs.
SOC	6390	Writing Practicum	3 sem. hrs.
SOC	6314	Advanced Quantitative Analysis	3 sem. hrs.
Elective Courses			**21 sem. hrs.**
Sociology courses approved by the department			
Dissertation			**21 sem. hrs.**
SOC	6V99	Dissertation	12 sem. hrs.
Total (including 30 sem. hrs. of M.A.)			**84 sem. hrs.**

DEPARTMENT OF SPANISH
MODERN LANGUAGES AND CULTURES

Graduate Program Director: Jan E. Evans

The goals of the Master of Arts program in Spanish are 1) to prepare students to pursue the Ph.D. in Spanish and related fields, 2) to prepare students to be effective teachers, and 3) to prepare students to work in business and professional activities that require Spanish in this country and abroad. Baylor's MA in Spanish provides a balanced study of canonical works in Latin American and Peninsular Literature together with a solid grounding in Hispanic Linguistics.

Admission

An applicant should have a bachelor's degree from an accredited university with a minimum of eighteen hours of Spanish beyond the sophomore level or the equivalent. An applicant should have a GPA in Spanish courses taken as an undergraduate that is predictive of success in this graduate program. Each candidate will be evaluated on an individual basis, and additional designated courses may be required as prerequisites for graduate work. All applicants must present the GRE General Test and, for international students, the TOEFL is required.

Requirements

The Master of Arts degree in Spanish requires thirty-six semester hours. The curriculum follows the options outlined below:

Option I (thesis-track) requires thirty-six semester hours, including six thesis hours. A minimum of fifteen hours, excluding the thesis, are required at the 5000-level.

Literary Theory, Research and Writing	3
Thesis	6
Three Linguistics courses*	9
Two Peninsular Literature courses	6
Two Latin American Literature courses	6
Electives**	6
Total	**36 sem. hrs.**

Option II (non-thesis-track) requires thirty-six semester hours, A minimum of eighteen hours, must be taken at the 5000-level.

Literary Theory, Research and Writing	3
Three Linguistics courses*	9
Three Peninsular Literature courses	9
Three Latin American Literature courses	9
Electives**	6
Total	**36 sem. hrs.**

For both options, students must demonstrate intermediate level proficiency in a second romance language. See the Graduate School Foreign Language Requirements for a list of options available for demonstrating proficiency.

For both options, students must pass written comprehensive examinations. For those choosing a thesis, an oral defense of the thesis is also required. In selecting electives, students must declare an area of emphasis: literature or linguistics.

** In the linguistics area, all students will normally take: SPA 5350 Introduction to Romance Linguistics, SPA 5351 History of the Spanish Language and SPA 5359 Seminar in Language Acquisition and Applied Linguistics.*

Those students who have chosen a literature emphasis may substitute one required linguistics course with a literature course (except for SPA 5359 which is required of all students), or with another non-linguistics course that is approved by the advisor.

Those students who have chosen a linguistics emphasis may substitute one required literature course with a linguistics course or a non-literature course that is approved by the advisor.

***Electives must be approved by the graduate advisor and must fit the area of emphasis chosen by the student.*

DEPARTMENT OF STATISTICAL SCIENCE

Chairperson: James D. Stamey
Graduate Program Director: Jane L. Harvill

The Department of Statistical Science offers the Doctor of Philosophy and the Master of Science degrees in statistics. The degree program provides a balance between statistical theory and applications of statistical methods. Emphasis is placed on acquiring research, consulting, and teaching skills that are applicable to the biomedical sciences, the natural sciences, academe, business and industry, and behavioral and social sciences.

Admission

Applications from students with undergraduate degrees in business, computer science, engineering,

mathematics, natural or life sciences,or behavioral or social sciences are welcome. Applicants should have a foundation in multivariable calculus and linear algebra. The GRE General Test (verbal and quantitative) is required.

Financial Support

The Department offers financial assistance for its doctoral degree candidates. An assistantship provides a stipend at a competitive level and tuition remission. An application to the graduate program in statistics is also considered an application for an assistantship. Special awards are available for outstanding students.

More information concerning the graduate program in statistics is available at www.baylor.edu/statistics.

DOCTOR OF PHILOSOPHY

Requirements

Ph.D. students must complete seventy-five semester hours. Requirements include a statistics core of twenty-seven semester hours, consulting-teaching practicum of three semester hours, elective courses of thirty-six semester hours, and nine semester hours of dissertation work. A successful dissertation defense is also required in order to earn this degree. Other requirements are computer proficiency and a preliminary examination. A foreign language is not required.

Curriculum

Statistics Core		**27 sem. hrs.**
STA 5380	Statistical Methods for Research	
STA 5381	Regression Analysis	
STA 6382	Theory of Linear Models	
STA 5383	Introduction to Multivariate Analysis	
STA 5365	Design of Experiments and Clinical Trials	
STA 5353	Theory of Statistics III	
STA 6351	Large Sample Theory	
STA 6352	Bayesian Theory	
STA 6384	Analysis of Categorical Responses	
Practicum Courses		**3 sem. hrs.**
STA 5V85	Practice in Statistics	
Dissertation		**9 sem. hrs.**
STA 6V99	Dissertation	

Elective Courses **36 sem. hrs.**

The elective courses are selected from any STA course or from approved courses in MTH, CSI, ECO, QBA, ISY, BIO, or PSY. Note that STA 5V85 does not count as an elective course.

MASTER OF SCIENCE

Requirements

M.S. students must complete thirty-six semester hours. Requirements include a statistics core (twelve semester hours), consulting-teaching practicum (three semester hours), and elective courses (twenty-one semester hours). Students must pass an oral examination.

Curriculum

Statistics Core		**12 sem. hrs.**
STA 5380	Statistical Methods for Research	
STA 5381	Regression Analysis	
STA 5353	Theory of Statistics III	
STA 5383	Introduction to Multivariate Analysis	
Practicum Courses		**3 sem. hrs.**
STA 5V85	Practice in Statistics	

Elective Courses **21 sem. hrs.**

The elective courses are selected from any approved STA course or from approved courses in MTH, CSI, ECO, QBA, MIS, BIO, or PSY.

MINOR IN STATISTICS

Requirements

For a graduate minor in statistics, students must complete twelve hours of course work. The following two courses are required:

STA 5300 Statistical Methods, or
STA 5380 Statistical Methods for Research
STA 5384 Multivariate Statistical Methods

Two additional graduate statistics courses are selected with the approval of the department.

DEPARTMENT OF THEATRE ARTS

Chairperson: Stan C. Denman
Graduate Program Director: DeAnna M. Toten Beard

The Department of Theatre Arts is committed to providing quality training in advanced theatre studies (theory, criticism, theatre history, and dramatic literature) and directing for the stage. The Master of Arts degree is a pre-doctoral program requiring 31 hours. The M.A. prepares students for Ph.D. programs in theatre history, theatre theory and criticism, performance studies, and related disciplines. Each M.A. student will be closely mentored by a practicing theatre scholar and will be directed to produce original, meaningful research in the discipline. The Master of Fine Arts degree in Directing is a terminal degree requiring sixty-one semester hours. The M.F.A. Directing program is intended for the artist-scholar who plans to direct professionally, work as an artistic director, and/or pursue a career in university theatre education. Each M.F.A. student will undertake a range of directing projects during his or her three years at Baylor. As Graduate Assistants, M.F.A. students will also be assigned various production and teaching responsibilities.

Admission

To qualify for admission into the graduate program, a student must have completed a minimum of eighteen semester hours of undergraduate study in theatre arts. The M.A. and M.F.A. degrees do not have a foreign language requirement.

Students applying for admission to the M.A. Theatre program are expected to 1) meet all requirements for admission to the Baylor University Graduate School; 2) submit three letters of recommendation; 3) submit a statement of purpose and professional goals; 4) submit an academic writing sample; and 5) submit scores from the GRE General Test. The faculty reserves the right to require certain foundation courses, as well as advanced courses, according to the needs and specialization of the individual student. For further requirements, see the general graduate admission section of this catalog.

Students applying for admission to the M.F.A. Directing program are expected to 1) meet all requirements for admission to the Baylor University Graduate School; 2) submit three letters of recommendation; 3) submit a resume which lists the plays he or she has directed, roles he or she has played, and technical/design activity in theatre; 4) submit a statement of purpose and professional goals; 5) submit a director's analysis and conceptual statement of a selected play; and 6) submit scores from the GRE General Test. Selected applicants will be asked to conduct a personal interview with a committee of faculty members from the Department of Theatre Arts. The faculty reserves the right to require certain foundation courses, as well as advanced courses, according to the needs and specialization of the individual student. For further requirements, see the general graduate admission section of this catalog.

M.A. Curriculum:

M.A. students must complete 31 semester hours of graduate course work including:

THEA 5101 Introduction to Graduate Theatre Studies
THEA 5307 Contemporary Performance Theory
THEA 5308 Dramatic Theory and Criticism
THEA 5351 Scholarship and Research Methods
THEA 5V99 Thesis (6 sem. hrs.)

Master of Arts students are not permitted to take practical directing courses at the graduate level.

M.A. Thesis Proposal:

M.A. students must prepare a written thesis proposal in consultation with an advisor. The proposal will be reviewed by a committee of faculty. Students must pass the thesis proposal before being eligible to register for thesis hours.

M.A. Thesis:

M.A. students must prepare a written thesis presenting original and substantial theatre arts research. Each student must pass an oral defense of the thesis to graduate from the program.

M.F.A. Curriculum:

M.F.A. students must complete 61 semester hours of graduate course work including:

THEA 4379 Advanced Studies in Contemporary Theatre & Drama
THEA 5101 Introduction to Graduate Theatre Studies
THEA 5301 Contemporary Directing Styles
THEA 5304 History and Theory of Directing
THEA 5306 Play Analysis for Directors
THEA 5307 Contemporary Performance Theory
THEA 5308 Dramatic Theory and Criticism
THEA 5310 Seminar in Classical Drama
THEA 5311 Directing Modern Plays
THEA 5312 Directing Classical Plays
THEA 5313 Production Design
THEA 5315 Seminar in Modern Drama
THEA 5335 Director's Workshop
THEA 5351 Scholarship and Research Methods
THEA 5373 Dramaturgy
THEA 5375 Actor-Director Collaboration
THEA 5376 Playwriting
THEA 5398 Thesis Production and Research
THEA 5V99 Thesis (6 sem. hrs.)

Required Productions:

In addition to the directing projects generated in required courses, each M.F.A. student is responsible for directing and designing a full-length play during the summer following his or her first year of residency. This project serves as a qualifying exam for entry into the second year of study. During the second year, each student must satisfactorily serve as Assistant Director for a production in the regular season of Baylor University Theatre. As part of the thesis project, each third-year M.F.A. student will direct a full-length play as part of the regular season of Baylor University Theatre.

M.F.A. Examination:

A written comprehensive examination is administered to M.F.A. students at the end of the second year. The examination will be reviewed by a committee of faculty. The student must pass the comprehensive examination before being eligible to register for thesis hours.

M.F.A. Thesis:

M.F.A. students must direct a full-length play as part of the regular season of Baylor University Theatre and write a rigorous academic thesis on the play and production. Each student must pass an oral defense of the thesis to graduate from the program.

Affiliated Programs

HEALTH CARE ADMINISTRATION

Program Director: Alan A. Jones

The Master of Health Administration degree is awarded after sixty-six semester hours of study which includes five semesters of graduate courses, a comprehensive oral examination, a twelve-month administrative residency, and a graduate management portfolio (GMP). The objective of this program is to prepare students for a professional career in health services administration, with particular emphasis on middle and senior level management in federal health care systems. Through the course of study, students gain a broad knowledge of the theories, concepts, managerial tenets and techniques fundamental to effective administration of health care delivery.

Prerequisites and Admission Screening

Candidates for admission must hold either a baccalaureate degree or the first professional degree from an accredited college or university acceptable to Baylor University. Candidates must also demonstrate a capacity for rigorous graduate study. Applicants must present both a grade point average and current (i.e. within the past 5 years) score on the GRE General Exam (minimum score of 300) or GMAT (minimum score of 525) that are predictive of success in this program. For further information regarding admission requirements and waivers, contact the Program Administrator at 210-221-6443.

The Master of Health Administration degree will be granted upon completion of graduate course work (one year), the comprehensive oral examination, the administrative residency (one year), and the GMP.

Class Composition and Curriculum

Each class is tri-service in composition, and most classes include Coast Guard, Department of Veterans Affairs, and Department of the Army civil servants. Class members typically include physicians, dentists, nurses, allied health professionals, and administrators, making the year an invaluable, multidisciplinary learning experience. The M.H.A. program of study consists of 18 core courses and one required elective.

Curriculum

The sequence for the program is:

First Semester		**17 sem. hrs.**
HCA 5105	Ethics in Health Care	
HCA 5106	Fundamentals in Graduate Studies	
HCA 5301	U.S. Health Care Systems	
HCA 5317	Health Management Information Systems	
HCA 5322	Organizational Behavior and Theory with Human Resources	
HCA 5336	Healthcare Jurisprudence	
HCA 5350	Finance I: Financial & Managerial Accounting in Health Care	
Second Semester		**17 sem. hrs.**
HCA 5213	Health Policy	
HCA 5231	Advanced Seminar in Human Resources Management	
HCA 5389	Population Health	
HCA 5353	Finance II: Financial Management of Health Care Organizations	
HCA 5410	Quantitative Analysis I: Statistics and Research Methods for Health Care Administration	
MECO 5331	Managerial Economics	
Third Semester		**9 sem. hrs.**
HCA 5306	Current Issues in Healthcare Quality	
HCA 5318	Finance III: Financial Applications	
MMKT 5371	Marketing Management	
Fourth Semester		**7 sem. hrs.**
HCA 5329	Leadership in Complex Organizations	
MMGT 5460	Operations Management and Research	
Fifth Semester		**4 sem. hrs.**
MMGT 5425	Strategic Management	

Required Elective Hours for Didactic Year is 3 sem. hrs.

Residency		**9 sem. hrs.**
HCA 5961	Administrative Residency	

NOTE: Electives are subject to change based on instructor availability. Students enrolled in the Army-Baylor M.H.A. program may take electives from both the H.C.A. and the M.B.A. courses.

HCA 5308	Lean Six Sigma
HCA 5312	Issues in International Health
HCA 5330	Health Care Contracting and Negotiations
HCA 5334	Current Issues in Bioethics and Health Law
HCA 5340	Selected Topics in Financial Management
HCA 5342	Health Applications in Networking
HCA 5355	Law and Ethics of War and Terrorism
HCA 5356	Organizational Ethics
HCA 5357	MEDCOM Analytics
HCA 5411	Quantitative Analysis II: Decision Making with Statistics and Research Methods for Health Care Administration
MECO 5330	Principles of Macroeconomics
MINB 5450	International Business
MBL 5110	Selected Topics in Business Law
MECO 5132	Macroeconomic Analysis Global
MECO 5133	Seminar in World Economic Systems
MMGT 5162	Seminar in International Management
MMKT 5171	Seminar in International Marketing
MFIN 5340	Investments
HCA 5V92	Special Studies in Health Care Administration*

*May be repeated with a different topic for up to 12 credit hours

Residency

Degree candidates are required to serve an administrative residency in a selected health care institution. During this residency, performed under the guidance of a qualified preceptor, students study and analyze all the functional elements of the organization. They develop managerial skills through experience in the performance of administrative tasks and through direct participation in the problem-solving process. Additionally, students perform special studies as directed and conduct a portfolio of graduate management projects. Approval of proposed projects must be secured from the preceptor and the student's faculty advisor at the Academy of Health Sciences.

Joint Master of Health Administration/ Master of Business Administration (M.H.A./M.B.A.)

Program Directors: Timothy Kayworth, Associate Dean for Graduate Business Programs; Alan A. Jones, Director for the Army-Baylor Graduate Program in Health and Business Administration, Fort Sam Houston, TX.

Note: This M.B.A. program is only open to eligible students enrolled in the Army-Baylor HCA graduate program.

Admissions

Students can take either the GRE or GMAT. The minimum required score is 310 for the GRE or 575 for the GMAT. Candidates for admission must hold either a baccalaureate degree or the first professional degree from an accredited college or university acceptable to Baylor University. Candidates must also demonstrate a capacity for rigorous graduate study. Applicant's grade point average and GRE/ GMAT scores must be predictive of success in this program. Applications must be submitted directly to the Army-Baylor Graduate Program. For further information regarding admission requirements and waivers, contact the Program Education Technician at (210) 221-6443.

Requirements

Candidates must complete all degree requirements for the M.B.A. and the M.H.A.. The M.H.A. requires the successful (passing) completion of 66 semester hours; the M.B.A. program requires the successful completion of an additional 21 semester hours (for a total of 87 semester hours). The joint program requires a one-year residency and the successful completion of a portfolio of graduate management projects. Since M.H.A./M.B.A. degrees are awarded simultaneously, all requirements in both programs must be completed in order to receive both degrees.

Curriculum

First Semester		**17 sem. hrs.**
HCA 5105	Ethics in Health Care	
HCA 5106	Fundamentals in Graduate Studies	
HCA 5301	U.S. Health Care Systems	
HCA 5317	Health Management Information Systems	
HCA 5322	Organizational Behavior and Theory with Human Resources	
HCA 5336	Healthcare Jurisprudence	
HCA 5350	Finance I: Financial and Managerial Accounting in Health Care Organizations	

Second Semester		**17 sem. hrs.**
HCA 5213	Health Policy	
HCA 5231	Advanced Seminar in Human Resources Management	
HCA 5389	Population Health	
HCA 5353	Finance II: Financial Management of Health Care Organizations	
HCA 5410	Quantitative Analysis I: Statistics and Research Methods for Health Care Administration	
MECO 5331	Managerial Economics	

Third Semester		**16 sem. hrs.**
HCA 5306	Current Issues in Healthcare Quality	
HCA 5318	Finance III: Financial Applications	
HCA 5411	Quantitative Analysis II: Decision Making with Statistics and Research Methods for Health Care Administration	
MMKT 5371	Marketing Management	
MECO 5330	Principles of Macroeconomics	

Fourth Semester		**17 sem. hrs.**
HCA 5329	Leadership in Complex Organizations	
HCA 5356	Organizational Ethics	
MMGT 5460	Operations Management and Research	
MBL 5310	Selected Topics in Business Law	
MINB 5450	International Business	

Fifth Semester		**8 sem. hrs.**
MMGT 5425	Strategic Management	
MECO 5132	Macroeconomic Analysis Global	
MECO 5133	Seminar in World Economic Systems	
MMGT 5162	Seminar in International Management	
MMKT 5171	Seminar in International Marketing	

Required Elective Hours for Didactic Year		**3 sem. hrs.**

Residency		**9 sem. hrs.**
HCA 5961	Administrative Residency	

Executive Clinical Leadership (ECL)
Master of Health Administration

Program Directors: Alan A. Jones, Director for the Army-Baylor Graduate Program in Health and Business Administration, Fort Sam Houston, TX.

Admissions

The Executive Clinical Leadership (ECL) M.H.A. track in a program that entails a 54-week didactic phase in which the student completes 66 credit hours, including a Graduate Management Project (GMP). Since the administrative residency year required for the traditional M.H.A. is waived, substantial clinical experience is a prerequisite (generally 10 years). Students are either a senior Major or junior Lieutenant Colonel. Additional requirements include the following: advanced clinical degree; minimum 3.2 undergraduate GPA (on a 4.0 scale); minimum of four years from Mandatory Retirement Date; research topic proposal (GMP). Candidates must have a current GRE (300 for M.H.A.; 310 for joint ECL) or GMAT (525 for M.H.A.; 575 for joint ECL) score. Applications must be submitted directly to the Army-Baylor Graduate Program. For further information regarding admission requirements and waivers, contact the Program Administrator at (210) 221-6443.

Requirements

Candidates must complete all degree requirements of the M.H.A.. The M.H.A. requires the successful (passing) completion of 66 semester hours including successful completion of residency rotations and GMP.

Curriculum

First Semester		**17 sem. hrs.**
HCA 5105	Ethics in Health Care	
HCA 5106	Fundamentals in Graduate Studies	
HCA 5301	U.S. Health Care Systems	
HCA 5317	Health Management Information Systems	
HCA 5322	Organizational Behavior and Theory with Human Resources	
HCA 5336	Healthcare Jurisprudence	
HCA 5350	Finance I: Financial and Managerial Accounting in Health Care Organizations	
Second Semester		**18 sem. hrs.**
HCA 5101	Graduate Management Study Development I	
HCA 5213	Health Policy	
HCA 5231	Advanced Seminar in Human Resources Management	
HCA 5389	Population Health	
HCA 5353	Finance II: Financial Management of Health Care Organizations	
HCA 5410	Quantitative Analysis I: Statistics and Research Methods for Health Care Administration	
MECO 5331	Managerial Economics	
Third Semester		**15 sem. hrs.**
HCA 5201	Residency Rotation	
HCA 5306	Current Issues in Healthcare Quality	
HCA 5318	Finance III: Financial Applications	
HCA 5411	Quantitative Analysis II: Decision Making with Statistics and Research Methods for Health Care Administration	
MMKT 5371	Marketing Management	
Fourth Semester		**11 sem. hrs.**
HCA 5102	Graduate Management Study Development 2	
HCA 5307	Residency Rotation 2	
HCA 5329	Leadership in Complex Organizations	
MMGT 5460	Operations Management and Research	
Fifth Semester		**5 sem. hrs.**
HCA 5103	Graduate Management Study Development 3	
MMGT 5425	Strategic Management	

No required elective hours for the Didactic Year

Executive Clinical Leadership (ECL)
Joint Master of Health Administration/ Master of Business Administration (M.H.A./M.B.A.)

Curriculum

First Semester		**17 sem. hrs.**
HCA 5105	Ethics in Health Care	
HCA 5106	Fundamentals in Graduate Studies	
HCA 5301	U.S. Health Care Systems	
HCA 5317	Health Management Information Systems	
HCA 5322	Organizational Behavior and Theory with Human Resources	
HCA 5336	Healthcare Jurisprudence	
HCA 5350	Finance I: Financial and Managerial Accounting in Health Care Organizations	

Second Semester		**18 sem. hrs.**
HCA 5101	Graduate Management Study Development I	
HCA 5213	Health Policy	
HCA 5231	Seminar in Human Resources Management	
HCA 5389	Population Health and Homeland Security	
HCA 5353	Finance II: Financial Management of Health Care Organizations	
HCA 5410	Quantitative Analysis I: Statistics and Research Methods for Health Care Administration	
MECO 5331	Managerial Economics	

Third Semester		**18 sem. hrs.**
HCA 5201	Residency Rotation	
HCA 5306	Current Issues in Healthcare Quality	
HCA 5318	Finance III: Financial Applications	
HCA 5411	Quantitative Analysis II: Decision Making with Statistics and Research	
MMKT 5371	Marketing Management	
MECO 5330	Principles of Macroeconomics	

Fourth Semester		**21 sem. hrs.**
HCA 5102	Graduate Management Study Development 2	
HCA 5307	Residency Rotation 2	
HCA 5329	Leadership in Complex Organizations	
HCA 5356	Organizational Ethics	
MMGT 5460	Operations Management and Research	
MBL 5310	Selected Topics in Business Law	
MINB 5450	International Business	

Fifth Semester		**9 sem. hrs.**
HCA 5103	Graduate Management Study Development 3	
MMGT 5425	Strategic Management	
MECO 5132	Macroeconomics Analysis Global	
MECO 5133	Seminar in World Economic Systems	
MMGT 5162	Seminar in International Management	
MMKT 5171	Seminar in International Marketing	

Required Elective Hours for Didactic Year **4 sem. hrs.**

NURSING ANESTHESIA
Doctor of Nursing Practice in Anesthesia Nursing (D.N.P.)

Program Director: Tanya Sudia

The D.N.P. in Nurse Anesthesia is a U.S. Army affiliated program. The U.S. Army has prepared Certified Registered Nurse Anesthetists (CRNAs) for nearly 50 years and their students have earned graduate degrees through university-based affiliations since 1981. The U.S. Army Graduate Program in Anesthesia Nursing (USAGPAN) produces virtually all active duty CRNAs and has averaged 28 graduates per year for the past ten years. The USAGPAN program is fully accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA) and will be included in the LHSON D.N.P. program accreditation currently held by the Commission on Collegiate Nursing Education (CCNE). The USAGPAN historically ranks among the nation's top nursing anesthesia programs and is currently ranked 8th out of 113 accredited programs by U.S. News & World Report.

The USAGPAN is a rigorous 2-phase 36-month program, with phase 1 consisting of 52 weeks of didactic instruction at the U.S. Army Medical Department Center and School, U.S. Army Health Readiness Center of Excellence, Joint Base San Antonio, Fort Sam Houston, Texas. Phase 2 consists of 97 weeks of didactic and clinical instruction conducted at select Medical Treatment Facilities affiliated with the Army, Department of Defense, Veterans Administration, and private sector. Among the current sites utilized for clinical instruction are Brooke Army Medical Center, Carl R. Darnall Army Medical Center, William Beaumont Army Medical Center, Dwight D. Eisenhower Army Medical Center, Womack Army Medical Center, Madigan Army Medical Center, Tripler Army Medical Center, and Memphis VA Medical Center. The overall program credit hours total 122 taught by a combined cadre of 37 highly qualified faculty.

The U.S. Army Graduate Program in Anesthesia Nursing matriculates Army and VA registered nurses. Graduates of the Baylor-USAGPAN will be placed in CRNA positions with the U.S. Army or VA Health System. The U.S. Army Graduate Program in Anesthesia Nursing students are educated in a manner that encourages independent thought and critical decision-making skills during times of great stress, both physical and emotional. As the sole providers of anesthesia under many circumstances in the Army, CRNAs need to rely on their skills and training to save the lives of soldiers and beneficiaries.

Admission Requirements:

Candidates seeking admission to the USAGPAN must meet the following minimum qualifications:

1. B.S.N. from an NLNAC or CCNE accredited program*
2. Two years "time on station" by the date that PCS is required. *VA and Direct Accession applicants are exempt from this active duty requirement*
3. Undergraduate GPA of 3.0 and an overall science GPA of 3.0
4. Undergraduate statistics course
5. Undergraduate class in either Biochemistry or Organic Chemistry
6. At least one year of experience as a Registered Nurse in a critical care setting, defined by the Council on Accreditation:
   "Critical care experience must be obtained in a critical care area within the United States, its territories, or a US military hospital outside of the United States. During this experience, the registered professional nurse is to have developed critical decision-making and psychomotor skills, competency in patient assessment, and the ability to use and interpret advanced monitoring techniques. A critical care area is defined as one where, on a routine basis, the registered professional nurse manages one or more of the following: invasive hemodynamic monitors (such as pulmonary artery catheter, CVP, arterial); cardiac assist devices; mechanical ventilation; and vasoactive infusions. Examples of critical care areas may include but are not limited to: SICU, CCU, MICU, PICU, NICU. Those who have experience in other areas may be considered provided they can demonstrate competence with managing unstable patients, invasive monitoring, ventilators, and critical care pharmacology."
7. GRE within five years: Competitive GRE score
8. Write a formal letter on your Goals and Objectives: Tell us why you want to become a CRNA and why you want to be a CRNA in the United States Army
9. Letters of recommendation:
   A. Army Reserve & Civilian Applicants: Army CRNA Phase 2 Site Director**, Supervisor, and one other letter
   B. Veterans Administration Applicants: Letter of support for your upward mobility within the VA from your Nurse Executive (member of the Pentad), Supervisor, and one other
   C. Army Active Duty Applicants: Army CRNA Phase 2 Site Director (if assigned at a Phase 2 site) ***, Supervisor, and one other letter

**All Army Direct Accession applicants must have a Phase 2 interview. Direct Accession applicants (Reserve & Civilian) will have a 3-day Phase 2 interview coordinated by their healthcare recruiter.
***Active Duty applicants not assigned to a Phase 2 site must coordinate with their hospital's Chief CRNA to schedule OR observation and an interview with a USAGPAN faculty member.

The following are additional important applicant requirements:

- You must meet the requirements for accession onto active duty as a commissioned officer in the U.S. Army Nurse Corps (see your nearest health care recruiter). For civilians or reservists, there is no "time on station" requirement because you will enter active duty specifically to attend our program. All requirements for your active duty appointment must be completed prior to the date you enter active duty (usually by February of the year school begins).
- Baylor University Louise Herrington School of Nursing selection is a separate and distinct admission process. You must be selected for both an active duty appointment and selected for admission to the USAGPAN program by Baylor University Louise Herrington School of Nursing.
- At least one year of Critical Care Nursing experience is required as defined by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA). CCRN/CEN is preferred.

Curriculum

The sequence for the program is:

Phase 1/Year 1

Summer 1		**18 sem. hrs.**
MNUR 6411	Biochemistry for Nurse Anesthesia	
MNUR 6612	Advanced A&P and Pathophysiology 1	
MNUR 6513	Advanced Pharmacology for Nurse Anesthesia 1	
MNUR 6321	Health Care Informatics	
Fall 1		**18 sem. hrs.**
MNUR 6514	Advanced A&P and Pathophysiology 2	
MNUR 6631	Fundamentals of Nurse Anesthesia Practice 1	
MNUR 6422	Research and Statistical Methods	
MNUR 6132	Clinical Concepts of Nurse Anesthesia Practice 1	
MNUR 6233	Regional Anesthesia & Ultrasound Science 1	
Spring 1		**21 sem. hrs.**
MNUR 6415	Advanced Pharmacology for Nurse Anesthesia 2	
MNUR 6735	Fundamentals of Nurse Anesthesia Practice 2	
MNUR 6434	Advanced Health Assessment and Diagnosis	
MNUR 6323	Research Evidence into Practice	
MNUR 6136	Clinical Concepts of Nurse Anesthesia Practice 2	
MNUR 6237	Regional Anesthesia & Ultrasound Science 2	
		Total 57 sem. hrs.

Phase 2/Year 2

Summer 2		**6 sem. hrs.**
MNUR 6341	Professional Aspects of Nurse Anesthesia Practice via DL	
MNUR 6371	DNP Scholarly Project 1: Design and Ethical Consideration of Practice Application	
Fall 2		**14 sem. hrs.**
MNUR 6342	Healthcare Management via DL	
MNUR 6661	Nurse Anesthesia Role Development 1	
MNUR 6551	Nurse Anesthesia Clinical Practicum 1	
Spring 2		**17 sem. hrs.**
MNUR 6343	Health Policy and Law via DL	
MNUR 6344	Leadership in Advanced Practice Nursing via DL	
MNUR 6662	Nurse Anesthesia Role Development 2	
MNUR 6552	Nurse Anesthesia Clinical Practicum 2	
		Total 37 sem. hrs.

Phase 2/Year 3

Summer 3		**3 sem. hrs.**
MNUR 6372	DNP Scholarly Project 2: Applying Practice Knowledge—Implementation/Outcomes	
Fall 3		**14 sem. hrs.**
MNUR 6663	Nurse Anesthesia Role Development 3	
MNUR 6553	NurseAnesthesia Clinical Practicum 3	
MNUR 6373	DNP Scholarly Project 3: Dissemination of Practice Inquiry	
Spring 3		**11 sem. hrs.**
MNUR 6664	Nurse Anesthesia Role Development 4	
MNUR 6554	Nurse Anesthesia Clinical Practicum 4	

Total 28 sem. hrs.

Degree Total 122 sem. hrs.

NUTRITION
Master of Science

Program Director: Renee Cole

The U.S. Military-Baylor University Master's Program in Nutrition is responsible for preparing innovative dietitians for current and future military roles, with an emphasis on military readiness. The program lasts 21 months and consists of 56 core hours (includes 9 hours of research). The research component of the program is completed at a military medical treatment facility or medical activity under the guidance of a Ph.D.-credentialed mentor. Upon successful program completion, the student will be awarded a Master of Science from Baylor University.

The practice for military dietitians is ever expanding. Military dietitians have a broader scope of practice than their civilian counterparts and require proficiency in multiple areas. Through the course of study, students will gain in-depth knowledge in the following areas: critical care (burns and trauma), nutrition and performance, international nutrition (humanitarian missions), leadership & management and research.

Admission

Candidates for admission must hold a baccalaureate degree from an accredited college or university and have completed a Didactic Program in Dietetics (DPD) approved by the Commission on Accreditation for Dietetics Education. Candidates must also demonstrate a capacity for rigorous graduate study. Applicants must present a grade point average and scores on the GRE that are predictive of success in this program. For further information regarding admission requirements and waivers, contact the Program Director at 210-221-6305. Candidates must also meet the entrance requirements of the Graduate School of Baylor University. In addition, they must be a U.S. citizen and meet military medical fitness standards. They must demonstrate a capacity for graduate study as well as interest necessary to ensure productive scholarship.

The Master of Science degree will be granted upon completion of the program of graduate course work (one year), the comprehensive examination, and the research thesis or research project.

Curriculum

The sequence for the program is:

First Semester		**25 sem. hrs.**
MPN 5304	Biochemistry	
MPN 5409	Advanced Anatomy and Physiology	
MPN 5401	Research Methods I	
MPN 5405	Medical Nutrition Therapy	
MPN 5312	Effective Scientific Writing	
MPN 5109	Current Issues in Nutrition	
MPN 5309	Advanced Energy Metabolism	
MPN 5307	Nutrition in Stability Operations	

Second Semester **22 sem. hrs.**

MPN 5404	Advanced Nutrition and Critical Care
MPN 5202	Vitamin and Mineral Metabolism
MPN 5406	Nutrition and Performance
MPN 5303	Research Methods II
MPN 5310	Force Health Protection
MPN 5311	Leader and Management Development
MPN 5305	Protocol Development

Third Semester **9 sem. hrs.**

MPN 5V99	Master's Thesis, or
MPN 5V98	Master's Research Project

PHYSICAL THERAPY

Doctoral Entry-Level Program (D.P.T.)

Program Director: Theodore W. Croy

Through an affiliation with Baylor University, students enrolled in the U.S. Army-Baylor University D.P.T. Program at the Army Medical Department Center and School, Health Readiness Center of Excellence may qualify for a Doctor of Physical Therapy degree. The program is located at Joint Base San Antonio-Fort Sam Houston, Texas and is 30 months in length and includes 18 months of didactic coursework, a clinical affiliation during Semester II, and 12 months of clinical internship. Students are commissioned officers in one of the three uniformed services: Army, Navy, or Air Force. Due to the students' active duty obligations and association with the uniformed services, certain policies and procedures governing students are unique to this program and may be found in the current DPT Program Manual or the Individual Student Assessment Plan (ISAP) published by this graduate program. The program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). Graduates of this program are eligible to take the National Physical Therapy Licensure Examination offered by The Federation of State Boards of Physical Therapy (FSBPT).

Mission

To produce active duty, commissioned physical therapists who are clinician scientists and leaders prepared for worldwide military health system practice.

Uniformed service physical therapists are generalist practitioners who might be assigned across the continuum of care in a variety of practice settings, including the deployed environment. However, the majority of physical therapists are working in a primary care role with an emphasis in prevention, examination, diagnosis, and intervention for patients with neuromusculoskeletal conditions. Our program focuses on academic, clinical, and research excellence to provide students with the knowledge, skills, evidence, problem solving ability, duties, responsibilities, and ethics to deliver high quality physical therapy patient care. Our program educates and develops physical therapy officers by providing those concepts, principles, methods, and role models which will inspire continuous personal and professional growth and service.

Admission

Applicants for admission to the program must hold a baccalaureate degree in either the arts or sciences from a college or university acceptable to Baylor University and the applicant must submit an application through the Physical Therapy Centralized Application Service (PTCAS). Applicants must present a grade point average and scores on the Graduate Record Examination that are predictive of success in this program. Required science prerequisites include:

Biological Sciences (3 courses)
Anatomy with Lab: 3 or 4 credit hours (Online lab courses are not acceptable)
Physiology: 3 or 4 credit hours
Biology with Lab: 3 or 4 credit hours (Online lab courses are not acceptable)

Physical Sciences (4 courses)
Chemistry with Lab: 8 credit hours or 2 courses (Online lab courses are not acceptable)
Physics with Lab: 8 credit hours or 2 courses (Online lab courses are not acceptable)

Social Sciences (3 courses)
Psychology: 6 credit hours or 2 courses (Online courses are acceptable)

Additional Social Science: 3 credit hours (Online courses are acceptable)

Statistics: 3 credit hours (Online courses are acceptable)
Specific courses which are accepted to meet the prerequisite course requirements are listed on the program website at www.baylor.edu/graduate/pt.

Candidates must meet the entrance requirements of the Graduate School of Baylor University. In addition, they should be less than 42 years of age, be a U.S. citizen, and meet the medical fitness standards as prescribed by the Departments of the Army, Air Force, and the Navy. They must demonstrate a capacity for graduate study as well as the interest necessary to ensure productive scholarship. This program does not have a foreign language requirement.

Graduate Requirements

Matriculated students must achieve a grade of "C" or better in each course and maintain a grade point average of 3.0 or above. Students must complete a clinical affiliation at the end of Semester II and pass a comprehensive oral examination following the 18-month didactic portion of the course in order to transition to the 12-month clinical internship. Students must achieve entry level competence as a physical therapist, as demonstrated on the Physical Therapist Clinical Performance Instrument (PT CPI.) Students must also exhibit professional behaviors consistent with clinical practice as described by the Army Values and APTA Values within the D.P.T. Program Manual.

Curriculum

The four-semester curriculum includes outlined academic courses and clinical experience, a research project, and a comprehensive oral examination.

Semester I		**28 semester hours**
PT 6120	Evidence Based Practice I	
PT 6253	Orthotic and Prosthetic Interventions	
PT 6230	Neuromuscular Physiology	
PT 6131	Clinical Pathophysiology	
PT 6240	Clinical Medicine I	
PT 6250	Therapeutic Interventions	
PT 6352	Physical Agent Interventions	
PT 6300	Physical Therapy Fundamentals	
PT 6410	Anatomy I	
PT 6270	Research Methods I	
PT 6601	Musculoskeletal Physical Therapy I – Lower Member	
Semester II		**28 semester hours**
PT 6121	Evidenced Based Practice II	
PT 6151	Pharmacology for Physical Therapists	
PT 6204	Diagnostic Imaging and Procedures	
PT 6241	Clinical Medicine II	
PT 6402	Musculoskeletal Physical Therapy II – Spine	
PT 6511	Anatomy II	
PT 6503	Musculoskeletal Physical Therapy II- Upper Member	
PT 6660	Physical Therapy Practice I	
PT 6271	Research Methods II	
Semester III		**32 semester hours**
PT 6107	Emerging Topics in Physical Therapy	
PT 6142	Clinical Medicine III	
PT 6172	Research Methods III	
PT 6282	Injury Control and Prevention	
PT 6306	Cardiopulmonary Physical Therapy	
PT 6308	Lifespan Physical Therapy	
PT 6209	Primary Care Musculoskeletal Physical Therapy	
PT 6212	Neuroanatomy	
PT 6280	Executive Leadership and Management	
PT 6281	Physical Therapy in Deployed Environments	
PT 6313	Neuroscience	
PT 6333	Clinical Exercise Physiology	
PT 6354	Advanced Therapeutic Interventions	
PT 6405	Neuromuscular Physical Therapy	

Semester IV **36 semester hours**
PT 6V98 Physical Therapy Internship

Total **124 semester hours**

DOCTOR OF SCIENCE IN OCCUPATIONAL THERAPY

Brooke Army Medical Center

Fort Sam Houston, Texas

Program Director: Brian T. Gregg

Deputy Program Director: Yvette Woods

In Fall 2009, Baylor University and the U.S. Army Medical Department Center and School (AMEDDC&S) established the Doctor of Science in Occupational Therapy degree (DSc.O.T.). This degree is an advanced-practice post-professional clinical doctorate designed to meet the professional development and specialty needs of Army occupational therapists. The program focuses on four pillars of foundational content: Behavioral Health, Upper Extremity Rehabilitation, Advanced Practice, and Research. Graduates of this program will be able to advance the practice of occupational therapy and expand the scope of care provided to warriors and military healthcare beneficiaries through the application of evidence-based practice and research.

The DSc.O.T., a full-time 62-hour curriculum of didactic study and clinical rotations, is offered at Joint Base San Antonio, Fort Sam Houston, Texas, and Brooke Army Medical Center, in San Antonio, Texas. The 18-month curriculum begins in January, with graduation in June of the following year.

Admissions requirements include the following:

•Currently serving as an Active Duty occupational therapist.
•Master's degree in occupational therapy.
•Cumulative GPA of 3.0 (total undergraduate and post-baccalaureate hours).
•Minimum GRE score of 300.

The curriculum is structured as follows:

Semester I (January-June) **17 semester hours**
MOT 6311 Evaluation and Intervention: Behavioral Health
MOT 6212 Behavioral Health Residency
MOT 6322 Differential Diagnosis in Occupational Therapy
MOT 6327 Quantitative Methods
MOT 6325 Evaluation and Intervention; Ergonomics
MOT 6319 Essentials of Evidence-based Practice and Clinical Research

Semester II (June-October) **14 semester hours**
MOT 6116 Management of Combat and Operational Stress Control Residency
MOT 6223 Critical Research Appraisal
MOT 6315 Management of Combat and Operational Stress Control
MOT 6328 Quantitative Methods II
MOT 6341 Evaluation and Treatment of Upper Extremity Conditions
MOT 6242 Upper Extremities Conditions Residency

Semester III (October-February) **18 semester hours**
MOT 6331 Evaluation and Intervention: Burn & Trauma Rehabilitation
MOT 6132 Burn and Trauma Rehabilitation Residency
MOT 6228 Occupation-Centered Intervention and Cultural Awareness
MOT 6221 Occupation-Centered Intervention and Cultural Awareness Residency
MOT 6337 Field Research in Occupational Therapy
MOT 6317 Qualitative Methods
MOT 6213 Evaluation and Intervention: PTSD and Polytrauma
MOT 6214 Post-Traumatic Stress Disorder and Polytrauma Residency

Semester IV (February-June) **13 semester hours**
MOT 6336 Aspects of Pharmacology, Complementary and Alternative Medicine, and Nutrition in Occupational Therapy
MOT 6243 Advanced Hand Surgery Outcomes for Occupational Therapists

MOT 6344 Advanced Professional Paper Project
MOT 6128 Clinical Management in Army Occupational Therapy
MOT 6441 Behavioral Health Conditions Residency

The DScOT program requires the completion of an evidence-based research project. During the final portion of the course of study, each resident will defend their research study and submit the results in a written format. The results of the project will be presented at an appropriate national conference and the manuscript will be submitted to a peer-reviewed journal for publication.

ORTHOPAEDIC PHYSICAL THERAPY

Post-Professional Doctoral Fellowship/Residency Programs (DSc.P.T.)

Baylor University offers the Doctor of Science in Physical Therapy (DSc.P.T.) degree, with a major in Orthopaedics, in affiliation with the U.S. Army at two locations. The concentration for the program offered at Brooke Army Medical Center, Fort Sam Houston in San Antonio, Texas, is Orthopaedic Manual Physical Therapy. For the program offered at Keller Army Community Hospital at the United States Military Academy, West Point, New York, the concentration is Sports Medicine and Primary Care.

At both sites the curriculum lasts approximately 18 months. Cohorts enter the program at Brooke Army Medical Center in January of odd-numbered years and, at West Point, in July of even-numbered years.

ORTHOPAEDIC MANUAL PHYSICAL THERAPY

Brooke Army Medical Center

Fort Sam Houston, Texas

Program Director: Chris Allen

Through an affiliation with Baylor University, students enrolled in the Army-Baylor University Doctoral Fellowship in Orthopaedic Manual Physical Therapy at Brooke Army Medical Center, Fort Sam Houston, Texas, complete additional requirements and may qualify for a Doctor of Science in Physical Therapy degree. The Graduate School of Baylor University provides academic oversight for the program. The uniqueness of this program necessitates significant differences in policies and procedures. Please refer to the most current Student Handbook published by this graduate program for details.

Objectives

Our mission is to produce postgraduate-level, specialty-trained orthopaedic manual physical therapists who provide state-of-the-art, advanced care and clinically relevant research to benefit the Military Health System. We accomplish this through the advanced training and education of clinical experts, mentors, adult educators, and researchers. Our goal is to continue the U.S. Army's legacy as a leader in orthopaedic manual physical therapy and neuromusculoskeletal evaluation, and to promote evidenced-based clinical practice and research that benefits patients and the physical therapy profession.

Admission

Candidates for admission to the program must hold a master's degree (M.P.T.) or entry level doctoral degree (D.P.T.) in physical therapy from a program accredited by the Commission on the Accreditation of Physical Therapy Education. They must have a minimum of four years experience in orthopaedic physical therapy upon entry into the program and be a board-certified specialist through the APTA in Orthopaedics, Sports, or Electromyography. Applicants must present a grade point average and scores on the GRE General Exam that are predictive of success in this program. Candidates must also meet the entrance requirements of the Graduate School of Baylor University. Uniformed services candidates are selected by a competitive board process by their respective uniformed service.

Curriculum

The curriculum was developed as a clinical fellowship in orthopaedic manual physical therapy based on the Description of Advanced Specialty Practice (DASP) in Orthopaedic Manual Physical Therapy by the American Academy of Orthopaedic Manual Physical Therapists.

The training focuses on an advanced clinical reasoning model with emphasis on a patient-focused, hypothesis-based examination and careful observation of the effects of physical therapy intervention. The academic curriculum emphasizes anatomy, biomechanics, and physiology, with a foundation in clinical research and critical review of the literature. The program was credentialed as a residency by the American Physical Therapy Association in September of 1999, and as a fellowship in 2004. It is recognized by the American Academy of Orthopaedic Manual Physical Therapists. The sixty

semester-hour program is divided into four semesters. Fellows are required to complete an individual research project, approved by an institutional review board, and submit the study for publication in an indexed peer-reviewed journal. The Doctor of Science in Physical Therapy (DSc.P.T.) degree will be granted upon successful completion of all credit courses, plus successful completion of an oral defense of their research project.

Semester I		**15 sem. hrs.**
PHT 6191	Independent Study I	
PHT 6391	Clinical Residency I	
PHT 5241	Differential Diagnosis in Orthopaedic Physical Therapy	
PHT 5326	Functional Physical Therapy Anatomy and Biomechanics: Lower Quarter	
PHT 5382	Evaluation and Mobilization: Lower Quarter	
PHT 5230	Essentials of Evidence-based Practice and Clinical Research	
PHT 5191	Special Topics: Seminar I	
Semester II		**16 sem. hrs.**
PHT 6192	Independent Study II	
PHT 6392	Clinical Residency II	
PHT 5331	Quantitative Evaluation	
PHT 5327	Functional Physical Therapy Anatomy and Biomechanics: Upper Quarter	
PHT 5383	Evaluation and Mobilization: Upper Quarter	
PHT 5323	Pathophysiology of Therapeutic Exercise	
Semester III		**13 sem. hrs.**
PHT 6193	Independent Study III	
PHT 6393	Clinical Residency III	
PHT 6332	Field Research in Physical Therapy	
PHT 5321	Aspects of Pharmacology and Nutrition in Physical Therapy	
PHT 5392	Evaluation and Mobilization: Advanced Lower Quarter	
Semester IV		**16 sem. hrs.**
PHT 6194	Independent Study IV	
PHT 6394	Clinical Residency IV	
PHT 6333	Advanced Professional Paper Project	
PHT 5393	Evaluation and Mobilization: Advanced Upper Quarter	
PHT 5349	Radiology for Physical Therapists	
PHT 6101	Advanced Practicum in Physical Therapy	
PHT 6111	Advanced Orthopaedic/Sports Medicine and Surgery for Physical Therapists	
PHT 5192	Special Topics: Seminar II	

SPORTS MEDICINE AND PRIMARY CARE

Keller Army Community Hospital

West Point, New York

Program Director: Mike Crowell

Through an affiliation with Baylor University, students enrolled in the U.S. Military Sports Medicine Physical Therapy Fellowship at Keller Army Community Hospital, West Point, New York, may qualify for a Doctor of Science in Physical Therapy degree in Orthopaedics, specializing in Sports Medicine. Residents are commissioned officers in one of the four uniformed services: Army, Navy, Air Force, and Public Health Service. Due to active duty obligations and association with the uniformed services, certain policies and procedures governing residents are unique in this program and may be found in the most current Policy and Procedure Manual published by this graduate program.

Objectives

The program mission is to produce active duty, post-graduate-level specialty trained physical therapists as clinical scientists in the area of sports medicine, who provide evidenced based primary care to beneficiaries of the Military Health System. Our focus is accomplished through two primary purposes. The first is to produce graduates with expertise in evidenced based primary care for preventing, examining, diagnosing, and managing a variety of complex orthopaedic and sports injuries. The second is to ensure competency in sports medicine research design, production, analysis, and critical review.

The residency provides military physical therapists an opportunity to develop advanced competencies in triage and management of acute sports injuries while at the United States Military Academy, West Point, New York. Graduates will use these same competencies to return injured soldiers to a high level of military technical and tactical readiness. The concepts for managing injured elite athletes and returning them to the playing field as quickly and safely as possible shares the same common goal of returning injured soldiers to their units in garrison or combat, thereby preparing residents for "Sports Medicine on the Battlefield operational readiness through injury prevention and early intervention."

Admission

Candidates for admission to the program must hold a master's degree in physical therapy from a program accredited by the Commission on the Accreditation of Physical Therapy Education. They must have a minimum of four years of experience in orthopaedic physical therapy upon entry into the program. The GRE General Test is required of all applicants, with a score predictive of success in this program. Candidates must also meet the entrance requirements of the Graduate School of Baylor University. Candidates are selected by a competitive board process by their respective uniformed service. All candidates must accept an active duty service obligation to remain on active duty after completion of the program.

Curriculum

The medical community nationwide recognizes the United States Military Academy at West Point as one of the forerunners in the surgical and rehabilitative management of athletic injuries. Experienced orthopedists, physical therapists, and athletic trainers currently work together to provide the best care possible to the cadet student-athletes. To this end, the curriculum focuses on an advanced clinical reasoning model with emphasis on acute primary care management. The academic curriculum emphasizes anatomy, biomechanics, physiology, and athletic injury management, with a strong foundation in clinical research and critical review of the literature. The program was originally credentialed by the American Physical Therapy Association in June of 1999 and recently accredited as a Fellowship by the American Board of Physical Therapy Residency and Fellowship Education in 2015. The primary intent is to make the fellowship the leading institution in sports medicine research. The sixty semester-hour program is divided into four semesters. All residents are required to complete an individual research project, and submit the study for publication in an indexed peer-reviewed journal prior to graduation.

Semester I		**16 sem. hrs.**
PHT 6387	Research & Statistics I	
PHT 6310	Soft Tissue and Bone Pathophysiology	
PHT 6320	Athletic Injuries I	
PHT 6391	Clinical Residency I	
PHT 6340	Functional Anatomy and Biomechanics I	
PHT 6150	Orthopaedic Lecture Series I	
Semester II		**16 sem. hrs.**
PHT 6388	Research & Statistics II	
PHT 6321	Athletic Injuries II	
PHT 6392	Clinical Residency II	
PHT 6341	Functional Anatomy and Biomechanics II	
PHT 6151	Orthopaedic Lecture Series II	
PHT 6395	Advanced Sports Medicine Practicum I	
Semester III		**14 sem. hrs.**
PHT 6389	Research & Statistics III	
PHT 6393	Clinical Residency III	
PHT 6396	Advanced Sports Medicine Practicum II	
PHT 6292	Special Topics: Seminar I	
PHT 6379	Advanced Radiology in Sports Medicine	
Semester IV		**14 sem. hrs.**
PHT 6394	Clinical Residency IV	
PHT 6152	Orthopaedic Lecture Series III	
PHT 6397	Advanced Sports Medicine Practicum III	
PHT 6293	Special Topics: Seminar II	
PHT 6384	Independent Study	
PHT 6294	Differential Diagnosis in Sports Medicine	

DOCTOR OF SCIENCE IN PHYSICIAN ASSISTANT STUDIES–EMERGENCY MEDICINE

Director, Postgraduate Physician Assistant Education: Brian E. Burk
Army/Baylor Program Director: Ryan Curtis

In Fall 2007 Baylor University, in affiliation with the U.S. Army, established a new degree program, the Doctor of Science in Physician Assistant Studies (DSc.P.A.), with the major in Emergency Medicine. This professional doctoral degree is new to the discipline of physician assistant studies. The program of study consists of 18 months of didactic study, clinical experience, and clinically oriented research conducted in a professional residency setting. The Baylor-Army DSc.P.A. is offered at Brooke Army Medical Center (BAMC), Fort Sam Houston in San Antonio, Texas, Madigan Army Medical Center, Fort Lewis in Tacoma, Washington, Carl R. Darnall Army Medical Center, Fort Hood in Killeen, Texas, and William Beaumont Army Medical Center, Fort Bliss in El Paso, Texas.

Objectives

The vision of the U.S. Army Emergency Medicine Physician Assistant Residency is to create the benchmark for postgraduate emergency medicine Physician Assistant education through the pursuit of academic and clinical excellence. The program achieves this vision by developing clinical scientists who are prepared to conduct advanced scientific research as well as to provide quality emergency care for patients with a wide variety of illnesses and injuries in the emergency department and in any world-wide contingency. The clinical scientists graduating from this program will become future leaders and mentors by establishing scholarly excellence for the physician assistant profession.

The U.S. Army Emergency Medicine Physician Assistant Residency provides advanced education and training, further enhancing the abilities of clinicians to save soldiers' lives on the battlefield, to serve Military Health System beneficiaries, to augment and extend physicians, and to improve recruiting and retention through unique professional development opportunities. The program produces graduates with expertise in evidence-based emergency care for examining, diagnosing, and managing a variety of life-threatening injuries and illnesses. The curriculum is structured to develop competency in research design, production, analysis, and critical review. Graduates will use competencies in triage and management of emergency medical conditions and injuries to stabilize critically ill or injured soldiers on the battlefield and prepare them for transportation to higher echelons of care.

Admission

Candidates for admission must hold a master's degree in physician assistant studies and be active-duty members of the U.S. military for a minimum of four years upon beginning the program. Applicants must have a grade point average 3.0 or above and obtain a minimum score of 300 on the GRE general exam. Candidates must have a minimum of two years of time on station prior to the start date of the residency or if Outside the Continental United States (OCONUS), the applicants must have served to within 60 days of their prescribed tour. Applicants must also agree to incur a 3.5 year Active Duty Service Obligation (ADSO). Candidates must also meet the entrance requirements of the Graduate School of Baylor University. Uniformed-services candidates are selected by a competitive board process by their respective uniformed service.

Curriculum

The 18-month curriculum totals 88 semester credit hours and consists of 16 didactic sections (representing approximately 740 hours of classroom instruction), 20 clinical rotations (4,300 clinical training hours), and a research project. Midterm and final board examinations, including both written and oral evaluation, are based on the standards set by the American Board of Emergency Medicine.

The didactic portion accounts for 32 credit hours and consists of 16 courses on an array of emergency-medicine topics. Each course carries two semester hours of credit:

MEM 6210	Introduction to Emergency Medicine-Resuscitation, Shock, and Anesthesia
MEM 6211	Emergency Medicine of Orthopedic Injuries, Emergency Ultrasound, and Emergency Radiology
MEM 6212	Toxicology and Oral Maxillary Facial Disorders
MEM 6213	Cardiovascular, Pulmonary, Hematologic, Oncologic, and Psychosocial Diseases and Disorders
MEM 6214	Gastrointestinal, Genitourinary, Obstetrics and Gynecologic Diseases
MEM 6215	Pediatrics, Non-Traumatic Musculoskeletal Disorders, Abuse, and Assault

MEM 6216	Emergency Wound Management, Environmental Injuries, Trauma
MEM 6217	Infectious Disease, Endocrinology, and Neurology
MEM 6220	Advanced Emergency Medicine, Resuscitation, Shock, and Anesthesia
MEM 6221	Advanced Emergency Treatment of Orthopedic Injuries, Emergency Ultrasound, and Emergency Radiology
MEM 6222	Advanced Toxicology and Oral Maxillary Facial Disorders
MEM 6223	Advanced Cardiovascular, Pulmonary, Hematologic, Oncologic, and Psychosocial Diseases and Disorders
MEM 6224	Advanced Gastrointestinal, Genitourinary, Obstetrics, and Gynecologic Diseases
MEM 6225	Advanced Pediatrics, Non-Traumatic Musculoskeletal Disorders, Abuse, and Assault
MEM 6226	Advanced Emergency Wound Management, Environmental Injuries, and Trauma
MEM 6227	Advanced Infectious Disease, Endocrinology, and Neurology

The remaining 56 credit hours are earned through clinical rotations. These consist of eight emergency department rotations (1472 clinical hours), four intensive-care rotations (1280 clinical hours), one trauma surgery rotation (320 clinical hours), two pediatric rotations (640 clinical hours), one toxicology rotation (80 clinical hours), one radiology/ultrasound rotation (160 clinical hours), one oral maxillofacial rotation (80 clinical hours), two elective rotations (240 clinical hours), and a dedicated research block (240 clinical hours):

MEM 6330	Orientation to Emergency Medicine	3 credit hours
MEM 6231	Emergency Department 1	2 credit hours
MEM 6232	Emergency Department 2	2 credit hours
MEM 6233	Emergency Department 3	2 credit hours
MEM 6234	Emergency Department 4	2 credit hours
MEM 6235	Emergency Department 5	2 credit hours
MEM 6336	Emergency Department 6	3 credit hours
MEM 6337	Emergency Department 7	3 credit hours
MEM 6338	Emergency Department 8	3 credit hours
MEM 6439	Pediatrics, Emergency Department	4 credit hours
MEM 6440	Pediatrics, Emergency Department and Pediatric Intensive Care Unit	4 credit hours
MEM 6142	Radiology	1 credit hour
MEM 6143	Oral Maxillary Facial Surgery	1 credit hour
MEM 6144	Toxicology	1 credit hour
MEM 6445	Emergency Ultrasound	1 credit hour
MEM 6346	Clinical Research	3 credit hours
MEM 6447	Surgical Intensive Care Unit (SICU)	4 credit hours
MEM 6448	Medical Intensive Care Unit (MICU)	4 credit hours
MEM 6449	Cardiac Care Unit (CCU)	4 credit hours
MEM 6450	Trauma Surgery	4 credit hours

Each physician assistant resident is required to initiate and complete an Internal Review Board (IRB) approved research project during the 18-month residency. During the final month of the residency, each resident will present the results of the research project in written and oral form and defend the project before a doctoral examining committee. The examining committee is chaired by the program director and includes three additional program faculty and a faculty member from the Baylor-Waco campus. A manuscript from the completed project will be submitted to a peer-reviewed journal for publication.

DOCTOR OF SCIENCE IN PHYSICIAN ASSISTANT STUDIES—CLINICAL ORTHOPAEDICS

Director, Postgraduate Physician Assistant Education: Benjamin Kocher
Army/Baylor Program Director: Robyn Chalupa

In Fall 2008 Baylor University, in affiliation with the U.S. Army, established a new degree program, the Doctor of Science in Physician Assistant Studies, with the major in Clinical Orthopaedics (DSc.P.A.S.). The program of study consists of 18 months of didactic study, clinical experience, and clinically oriented research conducted in a professional residency setting. The Baylor-Army DScPAS residency in Clinical Orthopaedics is offered at William Beaumont Army Medical Center, Ft. Bliss in El Paso, Texas; Brooke Army Medical Center, Ft. Sam Houston in San Antonio, Texas; and Madigan Army Medical Center, Ft. Lewis in Tacoma, Washington.

Objectives

The vision of the U.S. Army Clinical Orthopaedic Physician Assistant Residency is to create the benchmark for post-graduate orthopaedic physician assistant education through the pursuit of academic and clinical excellence. This residency provides Army physician assistants opportunity to develop advanced competencies in both operative assistance and non-operative management of musculoskeletal conditions. Graduates of the program will possess expertise in evidence-based orthopaedic care and advanced skills in history taking and physical examination, diagnostics, special testing, and management of a variety of non-operative musculoskeletal injuries and conditions in an outpatient setting and on the battlefield. Residents will demonstrate competency in research design, methods, analysis and critical review. Graduates will be prepared to function as clinical scientists and will become future leaders and mentors by setting the standard of scholarly excellence for physician assistants worldwide.

Admission

Candidates for admission must hold a Master's Degree in Physician Assistant Studies and be active-duty members of the U.S. Army. Applicants must present a competitive undergraduate grade point average and scores on the GRE General Exam that are predictive of success in this program. Candidates must also meet all Baylor University Graduate School entrance requirements. Fully qualified candidates are competitively board-selected for a limited number of program spots.

Curriculum

The 18-month curriculum totals 88 semester credit hours. The didactic portion comprises 36 courses (59 credit hours representing over 700 hours of classroom instruction), 9 clinical rotations (29 credit hours representing more than 3,900 clinical training hours in academic hospitals), and a research project. Midterm and final board examinations, including both written and oral evaluation, are based on the standards set by the Accreditation Council for Graduate Medical Education (ACGME).

The curriculum includes the following courses and clinical rotations scheduled in two phases:

PHASE I—1st 6 months

MCO 6201	Biomechanics of Fractures Fixation and Classification of Fractures
MCO 6202	The Multiply-Injured Patient with Musculoskeletal Injuries and Anesthetic Care of the Trauma Patient
MCO 6203	Non-Operative Fracture Treatment
MCO 6204	Principles of Internal and External Fixation
MCO 6205	Musculoskeletal Healing, Vascular Injuries and Compartment Syndromes
MCO 6206	Penetrating Trauma / Bone and Soft Tissue Reconstruction
MCO 6207	War Wounds, Limb Salvage, and Traumatic Amputations and Periprosthetic Fractures
MCO 6208	Complications of Injury to the Musculoskeletal System
MCO 6209	Fractures and Dislocations of the Hand and Wrist
MCO 6210	Fractures of the Radial and Ulnar Shafts and Isolated Distal Radius Fractures
MCO 6211	Fractures and Dislocations of the Elbow and Distal Humerus
MCO 6212	Subluxations and Dislocations about the Glenohumeral, Acromioclavicular, and Sternoclavicular Joints
MCO 6213	Fractures of the Shaft and Proximal Humerus
MCO 6214	Fractures of the Clavicle and Scapula

MCO 6215	Fractures of the Pelvic Ring and Acetabulum
MCO 6216	Femoral Head and Neck Fractures / Intertrochanteric Fractures and Hip Dislocations
MCO 6217	Subtrochanteric Fractures and Fractures of the Shaft of the Femur
MCO 6218	Fractures of the Proximal Tibia, Fibula, and Patella
MCO 6219	Knee Injuries and Fractures of the Tibia and Fibula
MCO 6220	Ankle Fractures and Fractures of the Talus
MCO 6221	Fractures and Dislocations of the Midfoot, Forefoot, and Calcaneous

PHASE II—Months 7 through 18 (1 year duration)

Didactic Portion

MCO 6140	Articular Injuries of the Knee
MCO 6141	Anterior Knee Pain and Patello-femoral Joint Instability
MCO 6142	Genetics I and II, Developmental Dysplasia of the Hip (DDH), Legg-Calve-Perthes Disease and Slipped Capital Femoral Epiphysis (SCFE)
MCO 6143	Orthopaedic Surgery in the Immunocompromised Patient
MCO 6144	Osteoarthritis
MCO 6145	Benign Bone Tumors
MCO 6146	Prioritization and Management of the Polytrauma Patient
MCO 6147	Ligamentous Injuries of the Foot and Ankle
MCO 6148	Knee Ligament and Meniscal Injuries, Epidemiology, Mechanism, Diagnosis, and Natural History
MCO 6150	Diagnosis and Management of Musculoskeletal Infection
MCO 6151	Overview of Arthritis
MCO 6152	Pathophysiology of Bone Tumors
MCO 6153	Orthopaedic Sports Medicine
MCO 6154	Spinal Pain
MCO 6346	Clinical Research

Practical Clinical Rotations

MCO 6301	Foot and Ankle Practical Rotation
MCO 6302	Orthopaedic Spine Rotation
MCO 6303	Pediatric Orthopaedic Surgery Rotation
MCO 6304	Orthopaedic Total Joint Rotation
MCO 6305	Orthopaedic Hand Surgery Rotation
MCO 6306	Orthopaedic Tumor Rotation
MCO 6307	Podiatry / Physical Medicine Elective Rotation
MCO 6401	Orthopaedic Sports Rotation
MCO 6402	Orthopaedic Trauma Rotation

Each physician-assistant resident is required to initiate and complete a research project, approved by the Institutional Review Board (IRB), during their 18-month curriculum. The initial two weeks of program instruction focus on preparing new residents for this project; introduction to statistical analysis, developing a research question, and submitting a research protocol are just a few topics discussed in detail. During the final month of the course of study, each resident will present the results of the research project in written and oral form and defend the project before a doctoral examining committee. The examining committee is chaired by the program director and includes three additional program faculty and a faculty member from the Baylor-Waco campus. A manuscript from the completed project will be submitted to an indexed, peer-reviewed journal for publication.

DOCTOR OF SCIENCE IN PHYSICIAN ASSISTANT STUDIES-GENERAL SURGERY

Director, Postgraduate Physician Assistant Education: Brian E. Burk
US Army/US Air Force-Baylor DSc.P.A.S.-GS Program Director: Seth Holland

Objectives

The mission of the US Army/US Air Force Baylor Doctorate of Science Physician Assistant-General Surgery (DSc.P.A.S.-GS) Program is to produce the best Clinical Research Educator Physician Assistant (PA) in General Surgery/Intensivist in the world. The DSc.P.A.S.-GS will serve in the Military Health System (Soldiers, Family Members, and Retirees) and will be trained to be leaders within the medical community. The program serves as the benchmark for post-graduate PA education and research through the pursuit of clinical excellence, academic rigor, and scholarly activity. The program will challenge the graduate student through a strenuous clinical and academic schedule with the overall goals of improving quality of care, improving patient safety, and improving medical knowledge through education and research.

The DSc.P.A.S.-GS Program provides Army/Air Force PAs an opportunity to develop advance competencies in clinical research as well as in both operative assistance, and clinical management of General Surgery/Trauma Surgery/ and Critical Care patients. This rigorous comprehensive training is conducted at Joint Base San Antonio Military Medical Center, Texas. Graduates will use the surgical and critical care skills acquired during the program to assist General Surgeons in the operative treatment of injured and critically wounded soldiers on and off the battlefield, perform Critical Care for post-operative trauma/surgical patients, provide surgical care to military dependents and enhance the knowledge of medicine through education and research.

Admission

Candidates for admission must hold a Master's Degree in Physician Assistant Studies and be currently on active-duty as a member of the U.S. Military. Applicants must meet all service specific requirements prior to beginning the program. Applicants must have an overall minimum grade point average of 3.0 and obtain a score on the GRE general exam that is predictive of successful completion of the program. Candidates must also meet the entrance requirements of the Graduate School of Baylor University. Uniformed-services candidates will be selected by a competitive board process by their respective uniformed service.

Curriculum

The U.S. Army/U.S. Air Force Physician Assistant Doctor of Science in General Surgery/Intensivist, referred to herein as the DSc.P.A.S. Program is an 18 month, 86 semester hours, Doctorate of Science Program. The DSc.P.A.S. Program is taught by U.S. Army/U.S. Air Force personnel under the supervision of the U.S. Army General Surgery Physician Assistant Program Director and U.S. Army General Surgery Physician Assistant Medical Director at the San Antonio Military Medical Center (SAMMC), Joint Base San Antonio Fort Sam Houston Texas. The program consists of approximately 4,000 clinical training hours, approximately 800 hours of classroom instruction, lectures, substantial reading assignments, oral presentations, written midterm, final exam (written and oral), monthly procedure labs, and a research requirement. The research project will have to be successfully defended to a faculty research board. Also the research projects manuscript must be submitted to an indexed, peer-reviewed journal for consideration of publication.

Didactic Portion

MGS6210	Surgical Basic Principles
MGS6211	Perioperative Management
MGS6212	The Abdomen
MGS6213	Surgery of the Esophagus and Stomach
MGS6214	Surgery of the Small Intestine, Large Intestine, Rectum, and Anus
MGS6215	Surgery of the Liver and Biliary Tract
MGS6216	Surgery of the Pancreas and Spleen
MGS6217	Endocrine Surgery
MGS6218	Breast Surgery
MGS6219	Neurosurgery, Pediatric Surgery
MGS6220	Burn Surgery
MGS6221	Trauma Surgery
MGS6222	Surgical Critical Care

MGS6223	Surgery on the Lung, Chest Wall, and Mediastinum
MGS6224	Surgical Oncology
MGS6225	Vascular Surgery

Practical Clinical Rotations

MGS6330	Orientation to General Surgery
MGS6331	General Surgery Team A (Colorectal/Pediatric/General Surgery)
MGS6332	General Surgery Team B (Minimally Invasive Surgery)
MGS6333	General Surgery Team C (General Surgery)
MGS6334	General Surgery (WH)
MGS6335	General Surgery Team D (Surgical Oncology)
MGS6336	Interventional Radiology
MGS6337	Trauma Surgery (Rotation 1)
MGS6338	Vascular Surgery
MGS6339	Burn Surgery/Burn Critical Care (Rotation 2)
MGS6340	Plastic Surgery
MGS6341	Neurosurgery
MGS6342	Trauma Surgery (Rotation 2)
MGS6343	Trauma/Surgical Intensive Care Unit (STICU) (Rotation 1)
MGS6344	Trauma/Surgical Intensive Care Unit (STICU) (Rotation 2)
MGS6345	Burn Surgery/Burn Critical Care (Rotation 1)
MGS6346	Elective Concentration
MGS6347	Research

COURSES OF INSTRUCTION

PREFIXES FOR COURSES OF INSTRUCTION

Accounting .....(ACC)
Akkadian .....(AKK)
American Studies .....(AMS)
Anthropology .....(ANT)
Apparel Design and Merchandising.....(ADM)
Aramaic .....(ARA)
Archaeology .....(ARC)
Art .....(ART)
Asian Studies .....(AST)
Aviation Sciences .....(AVS)
Bioinformatics.....(BINF)
Biology.....(BIO)
Biomedical Engineering.....(BME)
Biomedical Studies .....(BMS)
Business .....(BUS)
Business Law .....(BL)
Chemistry .....(CHE)
Child and Family Studies.....(CFS)
Chinese.....(CHI)
Classics .....(CLA)
Communication Sciences and Disorders (CSD)
Communication Studies .....(CSS)
Computer Science .....(CSI)
Curriculum and Instruction .....(EDC)
Doctor of Physical Therapy .....(DPT)
Ecology, Earth, Environmental Science (EEES)
Economics.....(ECO)
Education .....(EDU)
Educational Administration .....(EDA)
Educational Leadership.....(EDL)
Educational Psychology.....(EDP)
Electrical and Computer Engineering.....(ELC)
Engineering .....(EGR)
English .....(ENG)
Entrepreneurship .....(ENT)
Environmental Science .....(ENV)
Family and Consumer Sciences .....(FCS)
Film and Digital Media.....(FDM)
Finance .....(FIN)
Forensic Science .....(FORS)
French .....(FRE)
Geology.....(GEO)
German.....(GER)
Gerontology .....(GRT)
Great Texts .....(GTX)
Greek.....(GKB)
Greek.....(GKC)
Health Education.....(HED)
Health Services Research.....(HSR)
Healthcare Policy and Administration ....(HPA)
Hebrew .....(HEB)
History.....(HIS)
Human Performance .....(HP)
Information Security .....(ISEC)
International Business .....(INB)
Journalism .....(JOU)
Latin .....(LAT)
Latin American Studies.....(LAS)
Library Science .....(LS)
Management.....(MGT)
Management Information Systems .....(MIS)
Marketing .....(MKT)
Mathematics .....(MTH)
Mechanical Engineering .....(ME)
Medical Humanities .....(MH)
Middle East Studies .....(MES)
Modern Languages and Cultures .....(MLC)
Museum Studies.....(MST)
Music.....(MUS)
Music Ensemble.....(MUEN)
Neuroscience.....(NSC)
Nursing.....(NUR)
Nutrition Sciences.....(NUTR)
Occupational Therapy .....(OTD)
Philosophy.....(PHI)
Physics .....(PHY)
Political Science.....(PSC)
Psychology.....(PSY)
Public Health Education .....(PUBH)
Quantitative Business Analysis.....(QBA)
Recreation and Leisure Services.....(RLS)
Religion.....(REL)
Russian.....(RUS)
Slavic and East European Studies.....(SEES)
Social Innovation Collaborative .....(SIC)
Social Work.....(SWO)
Sociology .....(SOC)
Spanish.....(SPA)
Sport Management .....(SPM)
Statistics .....(STA)
Syriac .....(SYR)
Teacher Education.....(TED)
Theater Arts.....(THEA)
Ugaritic .....(UGA)

AFFILIATED PROGRAMS

Business .....(MBUS)
Business Law .....(MBL)
Clinical Orthopaedics.....(MCO)
Economics.....(MECO)
Emergency Medicine .....(MEM)
Finance.....(MFIN)
Health Care Administration .....(HCA)
International Business.....(MINB)
Management.....(MMGT)
Marketing.....(MMKT)
Master's Program Nutrition .....(MPN)
Military General Surgery .....(MGS)
Military Nursing Anesthesia .....(MNUR)
Military Occupational Therapy.....(MOT)
Physical Therapy.....(PT)
Physical Therapy (Doctoral) .....(PHT)

ACCOUNTING (ACC)

5121 Accounting Planning
Pre-requisite(s): Admission to MBA program.

Technical accounting concepts that students must master in order to plan an operation effectively. These topics, typically identified as managerial accounting, include traditional cost allocation procedures, cost behavior and cost estimation, contribution margin income statements, and budgets. The general approach will be the use of accounting information rather than its accumulation and distribution. Fee: $50

5122 Accounting Implementation
Pre-requisite(s): ACC 5121.

Operating issues as operations are begun. Topics include controlling day-to-day operations and responsibility accounting, and short-term operating decisions. Additional topics include accounting for cash, accounts receivable, inventories, plant and equipment, current and long-term liabilities, installment notes payable, and bonds. Using the information provided by the accounting system and establishing appropriate operating procedures will be emphasized.

5123 Accounting in a Changing Environment
Pre-requisite(s): ACC 5122.

Skills used in evaluating and adapting to change. Topics include the income statement, the balance sheet, the cash flow statement, analysis of financial statements, transfer pricing, and international operations. Emphasis will be upon providing non-accounting professionals with the accounting knowledge they need to be successful in today's rapidly changing environment.

5300 Accounting Tools for Management Decision Making
Pre-requisite(s): Admission to graduate business program.

This course covers a range of financial accounting and managerial accounting topics designed to provide managers with the accounting information needed for effective decision-making. Topics include cost behavior, break-even analysis, budgeting, standard costs, relevant costs, equity and dividend policy, statement of cash flows, investments, and other timely accounting topics.

5301 Business Foundations - Accounting

This course is required for MBA and MSIS students who do not have an undergraduate degree in business from an AACSB-accredited institution. The course will provide students with a foundation in accounting which is expected of all business graduate students.

5305 Financial Accounting
Pre-requisite(s): Admission to the Executive MBA program.

This course exposes students to accounting from the perspective of managers, investors, and creditors. Reading and interpreting financial statements is a primary focus. Course topics include the limitations of financial statements, use of financial statements in the determination of company value, and internal controls. Fee: $50

5308 Management Accounting Seminar
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.

Role of accounting analysis in managerial planning and control, with an emphasis on facilitating the development and implementation of business strategies.

5317 Information Systems Auditing
Pre-requisite(s): Admission to MAcc, MTax, or MSIS program; or consent of instructor.

An examination of theories and practices of information systems auditing. Practical exposure to information systems audit tools and risk assessment will be emphasized. Fee: $50

5320 Managerial Accounting
Pre-requisite(s): Admission to the Executive MBA program.

Students examine accounting's role in the information flow of an organization while focusing

on measurement of decision-making and performance. Topics include budgeting, variance analysis, direct costing, profit centers, investment centers, transfer pricing, and ethics. Participants learn to effectively use accounting information in their decision-making process.

5325 Governmental and Nonprofit Accounting
Pre-requisite(s): Admission to MAcc or MTax program or permission of instructor.
Examination of accounting, financial reporting, and budgeting for state and local governments, the Federal, and not-for-profit entities.

5330 Seminar in Auditing and Assurance Services
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.
A study of auditing and assurance services theories and methodologies through use of case studies, video simulations and reading of current literature. Topical coverage includes emerging issues in auditing, attestation, and assurance services. Fee: $50

5331 Fraud Examination
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.
An in-depth study of the nature of financial fraud, its legal elements and criminology, and the methods used to prevent and detect it. Included is exposure to the process by which financial fraud, including computer fraud, is investigated. Litigation techniques, including the giving of expert testimony, are studied. Fraud prevention techniques for business entities are also covered.

5335 Business and Professional Ethics for Accountants
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.
Examination of moral and ethical issues within the accounting profession and the broader business environment. Includes a broad study of ethical behavior and decision making and an examination of various professional codes of conduct within the accounting profession. Central to this examination will be the discussion of integrity, independence, and objectivity, as well as accountants' legal liability.

5340 Tax Considerations in Business Decisions
Pre-requisite(s): Admission to MAcc program; or consent of instructor.
Tax principles, rules, and alternatives: emphasis on effect on business decisions. Includes income and deductions, employee incentives and fringe benefits, cost recovery, tax-free exchanges, gains and losses, form of business organization (proprietorships, partnerships, or corporations), estate and gift taxes, international taxation. Fee: $50

5355 Cases in Accounting
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.
Case-study applications of accounting theory to actual business situations. Emphasis is on an in-depth understanding of elements of financial statements, problem recognition and problem solving as well as the impact of various business situations upon financial reporting practices. Fee: $50

5361 Corporate Taxation
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.
Federal income taxation of corporations and their shareholders: problems of organizing and capitalizing a corporation, determinants of the corporate income tax base, non-liquidating and liquidating distributions, reorganizations, and penalty taxes.

5362 Partnership and S Corporation Taxation
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.
Major aspects of taxation affecting flow-through entities and their owners. Emphasis on tax law by studying the Internal Revenue Code, Treasury Regulations, IRS Rulings, and case law. Tax planning and preparation of entity tax returns. Fee: $50

5364 International Taxation
Pre-requisite(s): Admission to MAcc of MTax program or consent of instructor.

Introduction to jurisdictional tax issues and laws surrounding foreign taxation of United States taxpayers and United States taxation of foreigners doing business in the United States. Fee: $50

5365 Advanced Individual Taxation
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.

In-depth coverage of selected areas of taxation relevant to individuals including the alternative minimum tax system; limitations on losses and deductions; acquisitions; uses and dispositions of interests in property; depreciation methods; characterization and reporting of gains and losses; deferral techniques; and other current topics.

5370 Tax Research
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.

In-depth treatment of the process necessary to research a tax problem efficiently, to arrive at a defensible solution, and to communicate that solution effectively. Students will also learn the process necessary to research a tax problem efficiently, to arrive at a defensible solution, and to communicate that solution effectively. Fee: $50

5378 Seminar in International Accounting
Pre-requisite(s): Graduate standing.

Official and unofficial generally accepted accounting principles (GAAP) used in other major countries. International accounting standards, which are used by many countries that do not have well-developed national GAAP, will also be studied. The course is designed to facilitate the understanding and financial analyses of international corporations.

5380 Advanced Financial Accounting Topics
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.

Business combinations and consolidated financial statements, accounting for partnerships, governmental and not-for-profit accounting, and other topics of contemporary interest.

5385 Financial Statement Analysis
Pre-requisite(s): Admission to MAcc or MTax program or permission from Department Chair of Accounting or Director of Accounting Graduate Programs.

An analysis of financial statements in order to examine cash flows, make judgments about earnings quality and uncover hidden assets and liabilities as part of the strategic analysis of firms. Financial statement analysis is used prospectively to forecast and value firms using cash flow based and accounting based methods. Tools are applied specifically to the valuation of equities.

5395 Internship in Accounting
Pre-requisite(s): Admission to MAcc or MTax program and Consent of Director of Accounting Internships.

Directed real-world learning experience under the supervision of a practicing accountant. The internship assignment must be approved by the Director of Accounting prior to enrollment.

5420 Managerial Accounting

Students examine the role of accounting in the information flow of an organization while focusing on measurement of decision-making and performance. Topics include budgeting, cost-volume-profit analysis, activity costing, planning, forecasting, performance evaluation, and ethics. Participants learn to use accounting information effectively in their decision-making process.

5V98 Special Studies in Accounting **1 to 6 sem. hrs.**
Pre-requisite(s): Admission to MAcc or MTax program; or consent of instructor.

Individualized research in accounting. Students' proposals for special study project must be approved by the supervising faculty member. Offered on demand and by consent of the adviser for one to six semester hours.

AKKADIAN (AKK)

5307 Akkadian Cross-listed as REL 5326
Pre-requisite(s): HEB 3302 or equivalent.
An introduction to the grammar, syntax, and vocabulary of Akkadian.

AMERICAN STUDIES (AMS)

4385 Seminar in American Studies
Pre-requisite(s): Senior standing or consent of program director.
Studies the theory and practice of American Studies, presents students with the opportunity to analyze written and visual texts, and requires a major paper. Through written work and oral presentations, the course gives students a broad perspective on the American culture.

5304 Bibliography and Research Methods (Cross-listed as ENG 5304)
See ENG 5304 for course information.

5306 Literary Criticism: Seminar (Cross-listed as ENG 5306)
See ENG 5306 for course information.

5308 Independent Study in Literature (Cross-listed as ENG 5308)
See ENG 5308 for course information.

5310 Research Methods in Mass Communication (Cross-listed as JOU 5310)
See JOU 5310 for course information.

5315 Foundations of the American Economy (Cross-listed as EDC 5315)
See EDC 5315 for course information.

5316 Basic American Documents (Cross-listed as EDC 5316)
See EDC 5316 for course information.

5320 Theory of Mass Communication (Cross-listed as JOU 5320)
See JOU 5320 for course information.

5330 American Political Development (Cross-listed as PSC 5330)
See PSC 5330 for course information.

5332 Human Growth and Development (Cross-listed as EDP 5332)
See EDP 5332 for course information.

5333 Psychology of Learning (Cross-listed as EDP 5333)
See EDP 5333 for course information.

5335 Research in Education (Cross-listed as EDP 5335)
See EDP 5335 for course information.

5336 History of American Christianity (Cross-listed as REL 5336)
See REL 5336 for course information.

5340 The American Founding (Cross-listed as PSC 5340)
See PSC 5340 for course information.

5350 Seminar in Mass Communication (Cross-listed as JOU 5350)
See JOU 5350 for course information.

5360 Seminar in United States History (Cross-listed as HIS 5360)
See HIS 5360 for course information.

5365 Seminar in Public History (Cross-listed as HIS 5365)
See HIS 5365 for course information.

5367 Seminar in Oral History (Cross-listed as HIS 5367)
See HIS 5367 for course information.

5370 Advanced Graduate Research and Writing (Cross-listed as HIS 5370)
See HIS 5370 for course information.

5371 Religion in the American South (Cross-listed as HIS 5371)
See HIS 5371 for course information.

5389 Contemporary American Literature (Cross-listed as ENG 5395)
See ENG 5395 for course information.

5391 Early American Literature (Cross-listed as ENG 5391)
See ENG 5391 for course information.

5393 Nineteenth Century American Literature (Cross-listed as ENG 5393)
See ENG 5393 for course information.

5394 Modern American Literature (Cross-listed as ENG 5394)
See ENG 5394 for course information.

5395 Seminar in American Educational Thought (Cross-listed as EDA 6370)
See EDA 6370 for course information.

5396 American Studies: Seminar (Cross-listed as ENG 5396)
See ENG 5396 for course information.

5V90 Independent Study in Mass Communication (Cross-listed as JOU 5V90)
See JOU 5V90 for course details.

5V99 Thesis **1 to 9 sem. hrs.**

ANTHROPOLOGY (ANT)

4305 Anthropological Theory
Pre-requisite(s): Upper-level standing or consent of instructor.
Theoretical approaches to modern-day anthropology, with emphasis on political economy, Marxism, hermeneutics, ecology, and feminism.

4310 Societies and Cultures of East Asia (Cross-listed as AST 4310)
Cultural traits and social structures of China, Korea, and Japan in the context of their development from the traditional to the modern. Special attention on Japanese society in comparison with American society.

4312 Societies and Cultures of Africa

Current social issues and policies in the light of historical and cultural foundations of selected African countries.

4320 Culture, Personality and Identity (Cross-listed as SOC 4320)

Pre-requisite(s): Upper-level standing or consent of instructor.

A thorough investigation of the relationship between the individual and culture/society, with emphasis on the "culture and personality" school of contemporary humanistic social science.

4321 Climate Anthropology (Cross-listed as ENV 4322)

Pre-requisite(s): Upper-level standing or consent of instructor.

An introduction to the causes and effects of climate change as it relates to people and power, ethics and morals, environmental costs and justice, and cultural and spiritual survival.

4325 Medical Anthropology

Biological and sociocultural aspects of human health, disease, development, aging, and health care. Especially emphasized are the developmental, holistic, and cross-cultural perspectives on disease and the life cycle.

4327 Human Catastrophe and Cultural Response (Cross-listed as ENV 4327)

Impact of major catastrophes on human society with emphasis on coping strategies and the utility of disaster theory to help in the recovery process. Issues include disaster, toxic disaster, famine, epidemic, war and natural oppression.

4330 Epidemiology

Pre-requisite(s): Some facility with quantitative methods, preferably with elementary knowledge of statistics.

Epidemiological concepts and skills pertinent to the understanding of diseases. Assessment of cultural, ecological, environmental, occupational, and behavioral factors.

4340 Environmental Archaeology (Cross-listed as ARC 4340 and ENV 4340)

Pre-requisite(s): Upper-level standing or consent of instructor.

Distributional patterns of archaeological sites within specific environments. Archaeological/environmental field work in Texas, with respect to recent conservation laws protecting nonrenewable archaeological resources.

4341 Archaeology of the Mediterranean

Pre-requisite(s): Upper-level standing.

Environmental and cultural factors that led to the rise and fall of civilizations in the Mediterranean region.

4348 Geoarchaeology (Cross-listed as GEO 4348)

See GEO 4348 for course information.

4351 Futuristics (Cross-listed as ENV 4351)

Pre-requisite(s): Upper-level standing or consent of instructor.

Biological and cultural forces that will likely shape humankind's future. Emphasis on trends in demography, globalization, science, and technology.

4353 Archaeology of North America (Cross-listed ARC 4353)

An archaeological survey of human societies in the United States and Canada from their earliest appearance in the New World to the arrival of Europeans. One-third of the course will focus on historical archaeology.

4355 Forensic Anthropology (Cross-listed as FORS 4355)
Pre-requisite(s): ANT 3331 or FORS 3331.
Forensic anthropological techniques used in civil and criminal court cases, including analysis of skeletal material for sex, age, stature, and biological affinity. Fee: $100

4360 Anthropology of Religion
Pre-requisite(s): Upper-level standing or consent of instructor.
Myth, ritual and religion in social and cultural anthropology. Emphasis on structural and functional analysis, including critiques of pertinent classical and contemporary works.

4361 Ethnographic and Analytical Methods in Ethnomusicology (Cross-listed as MUS 4360)
See MUS 4360 for course information.

4362 Applied Anthropology (Cross-listed as ENV 4362)
Pre-requisite(s): Upper level standing or consent of instructor.
An introduction to applied anthropology where major research components are identified and specific fields such as medical, nutritional, environmental anthropology, and Third World development are discussed.

4365 Primate Behavior
Pre-requisite(s): Upper-level standing or consent of instructor.
The complex social behavior of primates. Includes field trips. Graduate students produce a comprehensive research paper.

4369 Seminar in Anthropology (Cross-listed as ENV 4369)
Pre-requisite(s): Consent of instructor.
Debate of current theoretical issues that reflect the continually changing nature of the discipline. Students will address all sides of a currently debated issue, drawing upon their studies in anthropology and related fields. Faculty participation.

4680 Field School in Cultural Anthropology (Cross-listed as ENV 4680)
Pre-requisite(s): Consent of instructor.
Residence for five to six weeks in a selected area to observe and analyze social, economic, and environmental systems.

4690 Field School in Biological Anthropology
Pre-requisite(s): Consent of instructor.
Training in research techniques to gain an understanding of the methodology and its application in field research in various topics related to biological anthropology.

4V15 Research Methods in Cultural Anthropology 3 to 6 sem. hrs.
Pre-requisite(s): Consent of instructor.
Lecture and field experience in the methods and techniques of social and cultural anthropology. May be repeated for a total of six semester hours with different topics.

4V16 Archaeological Research (Cross-listed as ARC 4V16) 3 to 6 sem. hrs.
Pre-requisite(s): Consent of instructor.
Independent library and lab research focused on a current topic in archaeology. May be repeated for a total of six semester hours with different topics.

4V70 Special Topics in Anthropology 1 to 6 sem. hrs.
Pre-requisite(s): Consent of instructor.
A reading-research project in selected areas of ethnology, archaeology, or physical anthropology. May be repeated for credit up to a total of six semester hours, provided topic is different.

5305 Multicultural Societies
Pre-requisite(s): Consent of instructor.
Multicultural societies will be examined with respect to cultural histories as well as modern problems. Special attention will be given to the cultural complexity of the continental United States.

APPAREL DESIGN AND MERCHANDISING (ADM)

4312 Textile Testing and Analysis
Pre-requisite(s): A minimum grade of C in ADM 2310 and CHE 1405.
Standards, specifications and principles of testing applied to textile products. Theory and analysis of aesthetic, durability, comfort and functional performance of textiles. Application of research principles in testing and analysis of textile products (2-4) Fee: $70

4391 Merchandising Buying and Assortment Planning
Pre-requisite(s): A grade of C or better in ADM 3391.
Retail buying including assortment planning, inventory control, and the use of social media.

ARAMAIC (ARA)

4303 Aramaic (Cross-listed as REL 4303)
Pre-requisite(s): HEB 2310 or its equivalent.
Grammar of Biblical Aramaic and of selected Aramaic portions of the Old Testament with a brief introduction to post-Biblical Aramaic materials.

ARCHAEOLOGY (ARC)

4340 Environmental Archaeology (Cross-listed as ANT 4340 and ENV 4340)
See ANT 4340 for course information.

4348 Geoarchaeology (Cross-listed as ANT 4348)
See GEO 4348 for course information.

4353 Archaeology of North America (Cross-listed as ANT 4353)
See ANT 4353 for course information.

4V16 Archaeological Research (Cross-listed as ANT 4V16) 3 to 6 sem. hrs.
See ANT 4V16 for course information.

4V50 Special Topics in Archaeology 1 to 4 sem. hrs.
Pre-requisite(s): Consent of instructor.
Current topics in archaeological research. May be repeated once for credit up to a total of six semester hours provided topic is different.

ART (ART)

ART HISTORY COURSES (ART)

4356 Modern American Art - AAI
Pre-requisite(s): ART 2302 and 2303; upper-level standing.
Artistic expression in the United States from 1900 to 1945.

4357 American Art - AAI
Pre-requisite(s): ART 2302 and 2303; and upper-level standing.
Artistic expression in the United States from the Colonial Period to 1900.

4358 Contemporary Art - AAI
Pre-requisite(s): ART 2302 and 2303; and upper-level standing.
American and European painting and sculpture from 1945 to the present.

4365 Italian Renaissance Art
Pre-requisite(s): ART 2302 and 2303; and upper-level standing.
The major arts in Italy from the thirteenth to the sixteenth centuries with emphasis on sculpture and painting.

4368 Special Topics in Greek and Roman Art (Cross-listed as CLA 4368)
Pre-requisite(s): ART 2302 and 2303; and upper-level standing or consent of instructor.
A research seminar on Greek or Roman Art and Architecture. May be repeated once with a change of content.

4369 Greek and Roman Sport and Spectacle (Cross-listed as CLA 4369)
Pre-requisite(s): ART 2302 or consent of instructor. Either ART 3352 or 3353 is recommended.
History, origins, and political and social functions of sport and spectacle in Greece and Rome viewed through art, architecture, and material culture.

4V91 Special Problems in Art History **1 to 9 sem. hrs.**
Pre-requisite(s): ART 2302 and 2303; and upper-level standing; and consent of instructor and department chair. For Art majors only.
Qualified students with established success in art history may research and report on special areas or topics in art history. May be repeated once with a change in content.

STUDIO COURSES (ART)

4320 Watercolor Painting
Pre-requisite(s): ART 1316 and 2310. For Art majors only.
Techniques of the water-based media. Instruction gives much attention to creative style and individual criticism. Fee: $50

4321 Advanced Painting
Pre-requisite(s): ART 1316, 2310, and either 3320, 3321, or 4320. For Art majors only.
Study of a specific painting medium selected by the student in consultation with the instructor. Fee: $50

4324 Advanced Intaglio
Pre-requisite(s): ART 3324. For Art majors only.
A continuation of ART 3324 with emphasis upon creative expression with the metal plate. Fee: $50

4325 Advanced Lithography
Pre-requisite(s): ART 3325. For Art majors only.
A continuation of ART 3325 with emphasis upon the creative aspects of aluminum plate lithography and color printing. Fee: $50

4330 Illustration
Pre-requisite(s): ART 2310, 3320, 3330 or 4320. For Art majors only.
Illustrative art for graphic design. Emphasis on media, technique, style, and concept in advertising and editorial illustration. Fee: $50

4331 Package Design
Pre-requisite(s): ART 3332. For Art majors only.
Graphic design concepts applied to the design of three-dimensional form such as packaging, point-of-sale, environmental, and/or exhibition design. Fee: $50

4332 Identity Design
Pre-requisite(s): ART 3332. For Art majors only.
Introduction to the visual communication of identity development and branding. Emphasis on merging conceptual development with the aesthetic and implementation. Fee: $50

4V90 Special Problems in Studio Art **1 to 9 sem. hrs.**
Pre-requisite(s): Written consent of the appropriate instructor. For Art majors only.
Qualified students with established success in specified areas of art, especially their major concentration, may work on approved projects. May be repeated once with a change of content. Fee: $50

ASIAN STUDIES (AST)

4305 Modern China (Cross-listed as HIS 4305)
See HIS 4305 for course information.

4310 Societies and Cultures of East Asia (Cross-listed as ANT 4310)
See ANT 4310 for course information.

4325 Asian International Relations (Cross-listed as PSC 4325)
See PSC 4325 for course information.

4340 East Asian Philosophy (Cross-listed as PHI 4340)
See PHI 4340 for course information.

4350 Seminar in Asian Studies
An interdisciplinary seminar focusing on appropriate topics in the field of Asian studies. With content changed, this course may be repeated once for a maximum of six semester hours.

4362 Traditional Music and Culture in Asia (Cross-listed as MUS 4362)
See MUS 4362 for course information.

4364 The Governments and Politics of the Asia-Pacific Region (Cross-listed as PSC 4364)
See PSC 4364 for course information.

4374 Governments and Politics of East Asia (Cross-listed as PSC 4374)
See PSC 4374 for course information.

4376 Asian Literature in Translation (Cross-listed as MFL 4376)

Major writers of the East and their representative works. Course content varies. Readings may emphasize one national literature or survey the significant works in several literatures, stressing the genres and techniques peculiar to several Asian cultures.

4V80 Contemporary Issues in Asian Studies 1 to 3 sem. hrs.

Flexible credit options for the study of contemporary issues in Asian studies for upper-level and graduate students. With content changed, this course may be repeated once for a maximum of six semester hours; a maximum of three hours may be earned for graduate credit.

AVIATION SCIENCES (AVS)

4318 Avionics System Design (Cross-listed as ELC 4318)

See ELC 4318 for course information.

4323 The Environment and Economic Analysis (Cross-listed as ECO 4323 and ENV 4323)

See ENV 4323 for course information.

4340 Flight Performance Testing

Pre-requisite(s): AVS 1311, 1312, 4305; Private Pilot License; and credit or concurrent enrollment in AVS 4315; or consent of instructor.

Exploration of the theoretical and practical performance of aircraft including methods and techniques needed to determine airspeed calibration, climb and descent performance, level flight performance, takeoff and landing distance determinations, turning performance and energy performance. Practical flight tests will be conducted using different aircraft and aviation fuels. Fee: $50

4386 Remote Sensing (Cross-listed as BIO 4386, ENV 4386, GEO 4386)

See GEO 4386 for course information.

4485 Introduction to Geographic Information Systems (Cross-listed as ENV 4485, GEO 4485)

See GEO 4485 for course information.

4487 Advanced GIS Analysis (Cross-listed as ENV 4487, and GEO 4487)

See GEO 4487 for course information.

5320 Instrumentation and Test Stand Laboratory

Pre-requisite(s): AVS 4305 and credit or concurrent enrollment in AVS 4320 and 4330.

A laboratory-based course where students gain hands-on experience with (i) modern equipment used to measure air pollution levels;(ii) contemporary engine test equipment for both piston and turbine aircraft engines, including dynamometers and exhaust emission analysis instrumentation; and (iii) the computer software and hardware to enable data collection and reduction via either data loggers and computer manipulation, or by direct computer data capture. Fee: $100

5330 Development of Biofuels in Aviation

Pre-requisite(s): AVS 1312 (or its equivalent); CHE 1301 or AVS 4330 (or their equivalents).

Rationale for developing and using biofuels in aviation. History of the development of biofuels as aviation fuels. History of fossil fuels. International experience in aviation biofuels. Environmental, economic, and energy security factors. Technical considerations and testing procedures including FAA certification procedures.

5368 Integrated Energy Resource Systems (Cross-listed as ENV 5368)

See ENV 5368 for course information.

5391 Measurement Methods and Data Analysis for Air Pollution (Cross-listed as ENV 5391)
See ENV 5391 for course information.

5393 Atmospheric Chemistry & Physics (Cross-listed as ENV 5393)
See ENV 5393 for course information.

5V99 Research for Master's Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor.

Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of AVS 5V99 are required.

BIOINFORMATICS (BINF)

5309 Introduction to Bioinformatics and Systems Biology
Pre-requisite(s): Graduate standing or consent of instructor.

A project-orientated approach to defining, understanding, and applying modern tools for genomic and systems biology analysis. Students will gain proficiency at sequence, microarray, and systems biology annotation by following a biological problem through each step of the analysis process.

5330 Advanced Computational Biology (Cross-listed as CSI 5330)
See CSI 5330 for course information.

BIOLOGY (BIO)

4102 General Microbiology Lab
Corequisite(s): BIO 4302
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Laboratory experiments and techniques to culture microorganisms. Analyses of biochemical tests, quantitative and qualitative procedures, and identification of unknown organisms.

4104 Medical Entomology Laboratory
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; upper-level standing and credit or concurrent enrollment in BIO 4304, or consent of instructor.

Collection, preservation, identification, taxonomy and biology of medically important arthropods, especially insects. Survey collection required for graduate credit. Fee: $100

4106 Molecular Genetics Laboratory
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and either BIO 2306 or CHE 4341; and credit or concurrent enrollment in BIO 4306; or consent of instructor.

Training and preparation for graduate work in genetic engineering, molecular ecology, or molecular medical research. Techniques include DNA isolation, cloning, southern blotting, PCR, DNA sequencing, and computer analysis of DNA sequence. Fee: $120

4107 Laboratory Studies in Biochemistry and Physiology of the Cell
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and credit or concurrent enrollment in BIO 4307.

Experimental aspects of cellular biochemistry and physiology with emphasis on current techniques for protein analysis. Fee: $150

4108 Cell and Developmental Biology Laboratory
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and BIO 2306, and credit or concurrent enrollment in BIO 4308; or consent of instructor.

Modern experimental techniques of cell and developmental biology such as microscopy, mutant screening, immunoblotting, histochemistry, tissue culture, and cell adhesion assay will be covered during the course of laboratory exercises and students will have hands-on experience. Fee: $75

4117 Plant Physiology Lab
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and BIO 1306, or BIO 1406; all with grades of C- or better; and credit or concurrent enrollment in BIO 4317.

Laboratory experiments illustrating modern concepts in plant physiological research, with emphases on form, function relationships, technological innovations, and organismal adaption.

4123 Laboratory for Parasitology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; credit or concurrent enrollment in BIO 4323 and consent of instructor; and upper-level or graduate standing.

Detection and identification of human parasite diagnostic forms. Power Point presentation required for graduate credit. Fee: $100

4301 Immunology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; and BIO 2306; all with grades of C- or better.

Basic principles of resistance to disease, host-antigen interactions, immunologic response mechanisms, immunologic techniques, and correlations of disease and the immune response. (3-0)

4302 General Microbiology
Corequisite(s): BIO 4102.
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

An introduction to the major areas of microbiology, including microbial morphology, metabolism, genetics, evolution, taxonomy, ecology, and disease.

4303 Molecular and Medical Biotechnology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and either BIO 2306 or CHE 4341.

Production of medical and industrial products (e.g., vaccines, enzymes, pharmaceuticals); genetic manipulation of mice, livestock, plants, and microbes for medical research, agriculture, and environmental remediation; regulations, ethics, and patenting. Group capstone project: defend the technology platform of an existing biotechnology company.

4304 Medical Entomology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; upper-level standing or consent of instructor.

Identification, biology, and management of arthropod pests, especially insects, transmitting diseases affecting man, livestock and wildlife.

4306 Molecular Genetics
Co-requisite(s): BIO 4106.
Pre-requisite(s): BIO 3342 and either BIO 2306 or CHE 4341 each with a grade of C or better.

Techniques and strategies pertinent to work in genomics, proteonomics, and genetic engineering as well as cellular processes such as DNA replication, message expression, and cell signaling. Capstone project on analysis and presentation of published research is required.

4307 Biochemistry and Physiology of the Cell
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and CHE 3331 or consent of instructor; and credit or concurrent enrollment in BIO 2306.

The roles of biologically important molecules in cellular structure and function, emphasizing an integrated understanding of the characteristic of the four major classes of biological molecules and the chemical interactions that support living systems. May not receive credit for both BIO 4307 and CHE 4341.

4308 Cell and Developmental Biology
Co-requisite(s): BIO 4108.
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and 2306.

The mechanisms that regulate the development of multicellular organisms, from nematode to humans, will be examined using biochemical, genetic, and cell biological approaches. The course will investigate the role that gene regulation, cell-cell communication, cell adhesion, cell motility, signal transduction, and intracellular trafficking play in the commitment, differentiation and assembly of stem cells into specialized cell types and organs.

4310 Biogeography
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and 3403 and any one of BIO 3424, 4414, 4420, 4422, 4425, 4427 or 4428.

Patterns of geographic distributions of animals and plants, and the physical and biological factors, and processes affecting geographic distributions. (3-0)

4317 Plant Physiology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Experimental studies of important physical and chemical processes related to plant function.

4320 Pathophysiology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and 3422 or concurrent enrollment; or consent of instructor.

Pathophysiology of disease with emphasis on immunology, communicable disease, neoplasia, heredity, congenital problems, and degeneration as expressed in each organ system.

4323 Parasitology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; upper-level or graduate standing or consent of instructor.

Introduction to study of parasites and vectors, emphasizing life cycles and control of those affecting humans. Research paper required for graduate credit.

4330 Behavioral Genetics
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and 2106 and 2306; or consent of instructor.

Biological and genetic foundations of animal behavior. (3-0)

4339 Advanced Marine Field Studies (Cross-listed as GEO 4339)
See GEO 4339 for course information.

4344 Fundamentals of Toxicology (Cross-listed as ENV 4344)
See ENV 4344 for course information.

4350 Pathogenic Microbiology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and BIO 4401.

Introduction to medically relevant pathogens with an emphasis on bacterial pathogenesis.

4352 Evolutionary Developmental Genetics
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and 2306, and upper-level standing; or consent of instructor.

Integration of Evolutionary Biology and Developmental Biology into a common framework. The focus will be on the evolution of developmental pathways in order to explain the evolution of animal morphology.

4354 Neglected Tropical Diseases
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Core principles in genetics and cellular and molecular biology to understand the causation, pathogenesis, and control of the major neglected tropical diseases, defined as a group of poverty-promoting chronic infectious diseases.

4360 Applied and Environmental Microbiology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and either BIO 4401 or consent of instructor.

Introduction to the fundamentals and processes in industrial and environmental microbiology including practical topics including fermentation, antibiotic production, industrial biotechnology, wastewater treatment, etc.

4365 Topics in Evolution
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and BIO 2306 or consent of instructor.

Processes which establish or eliminate variation in populations and how these mechanisms affect biological diversity. (3-0)

4370 Biological Principles and Clinical Decision-Making
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and 3422 or concurrent enrollment; or consent of instructor.

Qualitative and quantitative fundamentals of clinical diagnosis and evidence-based medicine in the context of basic anatomy, physiology, biochemistry, and epidemiology.

4381 Restoration Ecology (Cross-listed as ENV 4380)
See ENV 4380 for course information.

4386 Remote Sensing (Cross-listed as AVS 4386, ENV 4386, GEO 4386)
See GEO 4386 for course information.

4402 Transmission Electron Microscopy
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and consent of instructor.

Use and operation of the transmission electron microscope and ancillary equipment as instruments of biological research, with special emphasis on tissue preparation, sectioning, examination, data acquisition, and photography. Fee: $50

4403 Scanning Electron Microscopy
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and consent of instructor.

Use and operation of the scanning electron microscope and support equipment. Specimen preparation, specimen examination, data acquisition, and data analysis will be emphasized. Fee: $120

4405 Limnology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Lecture, laboratory, and field studies of lakes and streams. Emphasis on analysis and interpretation of physical, chemical, and biological factors relating to metabolism and production of aquatic communities. Overnight trips may be required. (2-6) Fee: $75

4406 Aquatic Biology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Laboratory and field studies of lakes, streams, and estuaries. Primarily for advanced students of zoology and botany who are interested in aquatic organisms and their ecology. Emphasis is on collection, preservation, and identification of all aquatic biota except fishes. Overnight trips may be required. (2-6) Fee: $75

4414 Taxonomy of Flowering Plants
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Laboratory and field studies by the use of a dichotomous key emphasizing flowering plants of the Central Texas area as topics of study, and recognition of the major families of vascular plants. Lecture emphasis is on current problems in plant taxonomy and systematics. (3-3) Fee: $75

4416 Plant Anatomy
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Anatomy of seed plants, with emphasis on structure-function relationships that occur during growth and development. (2-6) Fee: $75

4418 Biology of Wetland and Aquatic Vascular Plants
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and any taxonomic course.

Taxonomy, ecology, structure, distribution, and economic significance of aquatic vascular plants. (4-3) Fee: $75

4420 Biology of the Vertebrates
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

An introduction to the biology of the vertebrates, emphasizing recognition and classification of modern taxa, adaptations to diverse lifestyles, and importance to humans in context of diseases, domestication and conservation. (3-3) Fee: $75

4422 Ichthyology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Fish fauna of the area with emphasis on morphology, ecology, economics, and systematics. Overnight trips may be required. (2-6) Fee: $75

4426 Vertebrate Histology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; and BIO 3422; all with grades of C- or better.

Microscopic structure of vertebrate tissues and organs. (3-3) Fee: $75

4427 Biology of Mammals
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

An introduction to the biology of mammals, emphasizing recognition and classification of modern taxa, adaptations to diverse lifestyles, and importance to humans in context of diseases, domestication and conservation. Fee: $75

4428 Ornithology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better.

Evolution, morphology, physiology, behavior, reproduction, ecology, geography, and migration of birds of the world. Includes field identification of Central Texas species. (3-3) Fee: $60

4431 Comparative Vertebrate Physiology
Pre-requisite(s): Either BIO 1105 and 1305, or BIO 1405; and either BIO 1106 and 1306, or BIO 1406; all with grades of C- or better; and upper-level standing; or consent of instructor.

Vertebrate physiology in a comparative evolutionary context. Emphasis on general principles, with unique examples supplied from all major vertebrate taxa. Fee: $150

5100 Seminars in Biology

Graduate standing in biology and related fields. Topics of current interest in various subdisciplines of biology. Topics change each semester. Involves presentation of seminars by enrolled graduate students. May be repeated only with changes in topics.

5101 Graduate Scientific Communications

Examination of various methods of scientific communication including leading undergraduate student groups in critical analysis and evaluation of scientific presentations and the current scientific literature.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5201 Research Methods in Biology

Description and application of the major tools of professional biology, especially instruction on effective writing for obtaining graduate fellowships and research grants, and methods for presenting results of scientific research.

5202 Research Methods in Biology II

Application of the major tools of professional biology, especially introductory programming, data management and visualization, and exploratory data analysis.

5300 Advanced Studies in Biology

Special and advanced topics in biology. May be repeated once with change in content.

5302 Virology (Cross-listed as BMS 5305)
Pre-requisite(s): BIO 4106 and 4306 or equivalent.

Material covered includes viral replication, molecular regulation, cellular life cycle, and pathogenesis; evolution, emerging diseases, and epidemiology; and prevention and control of viral diseases. Viruses which infect humans, domestic animals, and plants will be the focus. The global health perspective will be addressed throughout.

5303 Behavioral Ecology
Pre-requisite(s): BIO 3403 or equivalent.

Relationships among animal behavior, ecology, and evolution. Emphasis is on integrating current models with comparative and experimental evidence on how a particular behavior pattern contributes to an animal's chances of survival and its reproductive success.

5304 Nucleic Acids

This course examines recent developments in both DNA and RNA fields. Topics include nucleic acids structure, protein-nucleic acid interactions, techniques applied to nucleic acids, RNA decay, noncoding RNAs, RNA regulons, riboswitches, RNA bioinformatics and micro RNAs.

5306 Molecular Evolution
Pre-requisite(s): BIO 2306 and 2106.

Research in molecular genetics and its implications for evolutionary theory. Topics to be discussed include the evolutionary role of plasmids, temperate phage, transposons, introns, multigene families, organelle DNA, and DNA sequence divergence. (3-0)

5307 Advanced Cell Biology (Cross-listed as BMS 5307)
Pre-requisite(s): BIO 4307 or 4308 or equivalents; or consent of instructor.

Advanced topics in current cell biology research, including organelle and cytoskeleton structure and function, intra- and inter-cellular signaling, intracellular trafficking, cell cycle regulation, and cell division.

5310 Advanced Microbiology
Pre-requisite(s): BIO 4401 or consent of instructor.

Microorganisms, especially their mechanics of pathogenesis with emphasis on their distribution in nature, their beneficial and detrimental effects on humans, and the potential role of certain organisms in biowarfare.

5311 Advanced Genetic Analysis
Pre-requisite(s): BIO 1105, 1106, 1305, 1306, 2306, 3342, and 4306 or equivalents; or consent of instructor.

Principles and practice of classical and modern genetic analysis as applied to eukaryotic organisms, including yeast, nematodes, Drosophila, mice, and humans; isolation and analysis of mutations; gene mapping; suppressor analysis; chromosome structure; control of gene expression; and developmental genetics.

5315 Genomics & Infectious Diseases
Pre-requisite(s): BIO 2306, 3342, 4308 or equivalents or consent of instructor.

This course concerns new principles of genome science and explores their applications in infectious disease research. Topics include how pathogen and vector genomes are studied, how they function, and how they evolve. The importance of comparative and functional genomics along with use of arthropod disease vectors in identifying control mechanisms of human pathogens are highlighted.

5320 Ecological Biophysics
Pre-requisite(s): BIO 3303 or BIO 3403; and MTH 1321, PHY 1408 and PHY 1409.

First principle approaches that are used to describe microenvironments of living organisms and the energy and mass transfer between organisms and their external environment.

5325 Advanced Topics in Evolutionary Biology
Pre-requisite(s): Consent of instructor.

This course provides an opportunity to explore advanced evolutionary theory and its implementation. Emphasis on evolution as an integrative principle of biological science.

5330 Conservation Biology (Cross-listed as ENV 5330)
Pre-requisite(s): BIO 2306 and 3403 or equivalent.

Biological forces influencing scarcity and diversity, emphasizing: genetics, fitness, population viability, extinction, endemism, habitat fragmentation, and community structure and stability. (3-0)

5335 Climate Change and Biodiversity
Pre-requisite(s): BIO 3303 and MTH 1320, or equivalents.

Biological and conservation responses to naturally and human-induced climate change. Greenhouse gas levels, recent climate trends, range and abundance changes, phenological changes, evolutionary effects, climate change models and projections, designing landscapes and seascapes for change, managing the landscape matrix, and the future of biodiversity.

5340 Ecosystem Process Modeling
Pre-requisite(s): MTH 1321 (or equivalent) and BIO 3403 (or equivalent).

Interactions among ecosystem elements are formalized in computer simulation. Identification of ecosystem sources/sinks, reservoirs, and flux pathways is presented with the biological interpretation of mathematical representation of ecological processes. Fee: $60

5350 Biocomputing
Pre-requisite(s): Consent of instructor.

An introduction to the Python language and its specific application to genomic, proteomic, and environmental research. Emphasis on strings, data storage/access, and creating custom modules. Weekly coding projects will be based on each student's dissertation research. No coding experience is required.

5351 Advanced Biocomputing
Pre-requisite(s): Consent of instructor.

A Python-based course covering protein structure, phylogeny, DNA sequencing and transcriptome analysis, Markov chains, clustering, and machine learning. Weekly coding projects will be completed which are relevant, where possible, to each student's dissertation research. Strong skills in Python are required.

5355 Genomic Analysis (Cross-listed as BMS 5355)

Provides comprehensive instruction on the analysis of genomic data. An overview of basic genome biology, study design, NGS technology, and galaxy analysis tools is provided in addition to current best practices in the analysis of genomic data. Genomic Analysis focuses on analysis and detection of variants and transcriptomics from next-generation sequencing data including RNA-seq, ChIP-seq, and SNP-seq.

5360 Biological Invasions: Ecology and Management (Cross-listed as ENV 5360)
Pre-requisite(s): BIO 3403 or equivalent.

The biology of invasive alien plants and animals, emphasizing evolutionary ecology, impacts on native species, and effects on biodiversity. Biological invasion causes, pathways, vectors, and management strategies in terrestrial and aquatic systems.

5377 Landscape Ecology (Cross-listed as ENV 5377)
Pre-requisite(s): BIO 3403, MTH 1304, or equivalent.

Ecological factors influencing landscape structure and dynamics. Emphasis on landscape structure, exchanges among landscape components, and landscape stability and management. (3-0)

5380 Integrative Ecophysiology
Pre-requisite(s): BIO 4431 or instructor approval.

Application of the basic principles of nutrition to the study of fish, reptiles, birds, and mammals in their natural environments.

5399 Experimental Design and Research Communications for Molecular Biologists (Cross-listed as BMS 5399)
Pre-requisite(s): Consent of instructor.

This course provides in-depth training on how to formulate research hypothesis and questions and how to present the specialized areas of student research to general and professional audiences.

5400 Population Genetics
Pre-requisite(s): BIO 2306 or equivalent.

Basic concepts and current research in population genetics. Topics covered include genetic variation in natural populations, evolutionary forces causing change in gene frequency, linkage disequilibrium, quantitative variation, and the genetics of speciation. (3-3) Fee: $50

5401 Microbial Ecology

Interactions and transformations of microorganisms in soil, air, and water. Emphasis on methodology and practical relationships of microorganisms in the environment. (2-6) Fee: $50

5402 Invertebrate Zoology

Diversity and phylogenic development of all non-vertebrate phyla. Current areas of research in invertebrate biology are examined. (3-3) Fee: $50

5403 Population Ecology
Pre-requisite(s): BIO 3403 or equivalent; and BIO 5412 or MTH 2381 or STA 3381

Lectures, discussions, and field studies that illustrate basic concepts and current research in theoretical and applied population ecology. Topics include life tables, census techniques, single-species population and metapopulation dynamics, population regulation, population dynamics in competitive and predator/prey interactions, and the conservation of populations. Includes an independent research project. (3-3) Fee: $50

5404 Wetland Ecology and Management (Cross-listed as ENV 5404)
Pre-requisite(s); BIO 3403 or equivalent.

Lecture, laboratory, and field studies of the ecology and management of North American wetland environments. Emphasis will be placed on the ecology of aquatic and wetland plants and their role in determining wetland structure and function. Overnight field trip required.

5405 Stream Ecology (Cross-listed as ENV 5405)

Physical, chemical and biological organization of streams. Topics include geomorphology and hydrology, water chemistry, ecosystem processes in streams, watershed-stream linkages, and bioassessment methods.

5407 Bioenergetics

Discussion and laboratory experiences on the processes, pathways, and rate of biological energy transformation. (2-6) Fee: $50

5408 Plankton Ecology
Pre-requisite(s): BIO 3303 or equivalent; or consent of instructor.

Plankton comprise the most important community of oceans and most lakes. Their metabolism drives the global carbon cycle and supports global fisheries. We consider all plankton, but focus on the middle of the food web, i.e., the zooplankton as an intermediary between the phytoplankton producers and the fish consumers. The course has a strong hands-on component with experimental laboratory experiences.

5409 Cancer Biology (cross-listed as FCS 5365)
Pre-requisite(s): BIO 4306 or 4307 or 4308 or consent of the instructor.

Basic concepts and current research in cancer biology. Topics include the cell intrinsic regulation of growth control, the accumulation of mutations, and the cell biological and micro-environmental changes associated with cancer, as well as therapeutic strategies. Current literature is discussed.

5412 Biometrics
Pre-requisite(s): MTH 1304 or equivalent.

Principles and methods for experimental design, quantitative analysis, and interpretation of biological data, including application of mainframe computer packages. (3-3) Fee: $50

5413 Advanced Ecological Data Analysis (Cross-listed as ENV 5413)
Pre-requisite(s): BIO 5412 or equivalent.

Current approaches to analyzing and interpreting complex biological data. Emphasis on integrative analysis strategies using modern statistical modeling techniques. Hands-on analysis of data sets using the statistical package R.

5420 Transmission Electron Microscopy
Pre-requisite(s): Consent of instructor.

Use and operation of the transmission electron microscope and ancillary equipment as instruments of biological research, with special emphasis on tissue preparation, sectioning, examination, data acquisition, and photography.

5421 Scanning Electron Microscopy
Pre-requisite(s): Consent of instructor.
Use and operation of the scanning electron microscope and support equipment. Specimen preparation, specimen examination, data acquisition, and data analysis are emphasized.

5425 Molecular Ecology
Pre-requisite(s): Consent of instructor.
Basic concepts and current laboratory techniques in molecular ecology. Emphasis is on use of these skills in addressing basic and advanced ecological questions.

5V90 Special Problems **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Advanced work in biology. Subject and hours of credit agreed upon by student and professor prior to registration. For master's and doctoral students. Fee: $50

5V99 Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of major professor.
Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of BIO 5V99 are required. Fee: $50

6101 Research Rotation
The research rotation allows students to become familiar with different areas of research, learn new experimental techniques, obtain experience in different research laboratories, and ultimately identify a lab in which to conduct dissertation research.

6V10 Doctoral Prospectus Research **1 to 2 sem. hrs.**
Pre-requisite(s): Consent of Instructor.
Supervised research for writing a dissertation research proposal and designing experimental approaches that will be the subject of a preliminary exam that will admit students to candidacy. A student may repeat this course for credit, with a maximum of 4 total hours.

6V99 Dissertation **1 to 12 sem. hrs.**
Pre-requisite(s): Consent of major professor.
Research, data analysis, and writing and oral/written defense of an approved doctoral dissertation. At least twelve hours of BIO 6V99 are required. Fee: $50

BIOMEDICAL ENGINEERING (BME)

4353 Image Formation and Processing (Cross-listed with ELC 4353)
See ELC 4353 for course information.

4370 Biomaterials: Form and Function
Pre-requisite(s): ME 3320 and 3322.
A traditional mechanical/materials engineering approach will be used to explore the structure and function relationship of naturally occurring biological materials. Emphasis is on mechanical design and function with some discussion of physical properties. Materials used in medical devices will be compared and contrasted with naturally occurring biomaterials. (3-0) Fee: $50

4372 Bioinstrumentation (Cross-listed as ELC 4372)
See ELC 4372 for course information.

4374 Biomechanics
Pre-requisite(s): ME 3320.
Introduction to biomechanics. Topics covered include: review of fundamental principles of mechanics, human musculoskeletal physiology and anatomy, properties of biological materials, methods and practice of measuring biological signals, biomechanical modeling and simulation, and applications of biomechanical study. (3-0) Fee: $50

4396 Special Topics in Biomedical Engineering
Pre-requisite(s): Consent of department chair.
Study of advanced topics in biomedical engineering. This course may be repeated once under a different topic.

4452 Biomedical Digital Signal Processing
Pre-requisite(s): ELC 3335 and STA 3381.
Discrete-time signals and systems, sampling theory, z-transforms, spectral analysis, filter design, applications, analysis, and design of digital signal processing systems. Laboratory emphasis on biomedical applications of digital signal processing. Credit cannot be earned for ME 4452 if credit is earned for ELC 4451. (3-3)

4V97 Special Projects in Biomedical Engineering **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of department chair.
Advanced topics and/or special project activities in biomedical engineering.

5351 Multidimensional Signal Analysis (Cross-listed as ELC 5351)
See ELC 5351 for course information.

5353 Biomedical Signal Analysis (Cross-listed as ELC 5353)
See ELC 5353 for course information.

5360 Introduction to Biomedical Engineering
Pre-requisite(s): Consent of instructor.
Introduction to the interdisciplinary nature and broad scope of biomedical engineering. Topics covered will include biomechanics, biomaterials, biosensors, biomedical instrumentation, bioinformatics, prosthetic devices, and other biomedical engineering areas.

5375 Biomechanical Computer Modeling
Pre-requisite(s): Graduate standing in Engineering.
An investigation into the methods of computer modeling and simulation for the study of human musculoskeletal biomechanics.

5376 Medical Device Design and Evaluation
Project-based introduction to medical device design and evaluation. Topics include: clinical needs finding, design criteria generation, basic anatomy, design evaluation, prototyping, regulatory process, intellectual property, and validation process. Students work in teams on real medical problems and serve on committees to provide guidance for the project teams on either intellectual property or regulatory standards.

5390 Research Methods and Project Formulation (Cross-listed as ELC 5390 and EGR 5390)
See ELC 5390 for course information.

5396 Special Topics in Engineering (Cross-listed as EGR 5396, ELC 5396, and ME 5396)
See EGR 5396 for course information.

5397 Special Projects in Engineering (Cross-listed as EGR 5397, ELC 5397, and ME 5397)
See EGR 5397 for course information.

5V99 Master's Thesis **1 to 6 sem. hrs.**
Students completing a master's program with a thesis must complete six hours of BME 5V99.

BIOMEDICAL STUDIES (BMS)

5100 Biomedical Seminar
Pre-requisite(s): Enrollment in graduate program.

Students are required to register for the weekly seminar (a forum for outside speakers, presentation of student research, and discussion of selected topics) and to present papers. No more than three semester hours may be counted on a master's degree and no more than six may be counted on the Ph.D. degree. (1-0)

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5301 Survey of Immunology
Pre-requisite(s): BIO 4301.

Advanced aspects of the following topics are covered: Innate immunity, antigen recognition and presentation, lymphocyte maturation, autoimmunity, host defense failure, hypersensitivity, and vaccine development.

5302 Current Concepts in Immunology
Pre-requisite(s): BIO 4301.

The manipulation of the immune system to advance therapy and prevention is a special focus of this course. Antigen recognition and presentation, dendritic cell development, vaccine development, and other topics are covered in detail. Each topic is presented from the literature by a researcher working on the topic.

5305 Virology (Cross-listed as BIO 5302)

See BIO 5302 for course information.

5307 Advanced Cell Biology (Cross-listed as BIO 5307)

See BIO 5307 for course information.

5308 Biotechnology and Cell Biomedicine
Pre-requisite(s): Graduate student enrollment in Biology, Chemistry, or Biomedical Studies program. (BIO 4306 preferred but not required.)

Interdisciplinary course that covers basic mechanisms of molecular biology and genetics along with rigorous presentation of state-of-the-art research methodology. Utilization of DNA/RNA/protein regulation technology in biomedical and clinical applications.

5310 Molecular Biology of the Cell
Pre-requisite(s): BIO 4307.

Advanced topics in cell biology. Cell division, replication, and recombination of DNA and mutations and repair of DNA will be reviewed. Application of restriction enzymes, recombinant DNA technology, and sequencing of DNA to study molecular architecture of the cell will be overviewed. (3-0)

5343 Studies in Intermediary Metabolism
Pre-requisite(s): CHE 4341 or BIO 4341; or consent of instructor.

Investigation of the interrelationships of energy utilizing and producing metabolic pathways. Consideration will be given to glycolysis, Kreb's cycle, oxidative pathways of fatty acids, pathways of lipid and sterol formation, and various aspects of gluconeogenesis and the pentosephosphate shunt, as well as specific functions of amino acid metabolism in oxidative stress and methylation.

5355 Genomic Analysis (Cross-listed as BIO 5355)
See BIO 5355 for course information.

5399 Experimental Design and Research Communications for Molecular Biologists (Cross-listed as BIO 5399)
See BIO 5399 for course information.

5401 Special Techniques in Immunology
Pre-requisite(s): CHE 4341 and 4342; or consent of instructor.
Immune responses of vertebrate animals, including immunochemistry and molecular genetics. Cellular responses will be analyzed by conventional skin tests, in vitro correlates of delayed-type hypersensitivity, histology, and laser-activated cell sorting. (2-6) Fee: $50

5V95 Biomedical Research 1 to 8 sem. hrs.
Pre-requisite(s): Consent of student's dissertation or advisory committee.
Directed research for those students who have not yet passed the Ph.D. preliminary examination and who have not yet selected a Ph.D. dissertation topic or for master's students desiring in-depth practical training in a specific area of research. May be repeated for no more than 30 semester hours of credit.

5V99 Thesis 1 to 6 sem. hrs.
Pre-requisite(s): Consent of student's thesis committee or a minimum of twelve hours of graduate work.
A minimum of six semester hours is required.

6310 Research Rotations
Individual students complete five-week rotations in three research laboratories in order to master a set of biomedical techniques and to choose a home lab and dissertation mentor. Students join ongoing research projects and learn current techniques from lab personnel that will advance their dissertation work. Participation in experimental planning and exploration of the relevant literature is expected.

6390 Special Problems in Biomedical Studies
Pre-requisite(s): Consent of student's dissertation committee.
Selected topics in biomedical studies. May be repeated with change in content. No more than six semester hours total credit allowed.

6V99 Dissertation 1 to 12 sem. hrs.
Pre-requisite(s): Consent of the student's dissertation committee and admission to candidacy.
A minimum of twelve semester hours is required.

BUSINESS (BUS)

5050 Graduate Business Colloquium
Student's attendance at designated Hankamer School of Business sponsored speaker events is required to earn credit for this course. Events will be identified at the beginning of each semester.

5101 Focus Firm Case Competition
Pre-requisite(s): Admission to MBA program.
This "real time" intensive course introduces students to the semester Focus Firm that will be analyzed across all core MBA classes throughout the semester. During the first week of the semester, all MBA students will be involved in a case competition on the Focus Firm. At the conclusion of the week's case competition, students will present their results to company executives and receive feedback. This course will be taken three times with three different focus firms. Fee: $50

5102 Focus Firm II
Pre-requisite(s): Admission to MBA Program and BUS 5101.

An experiential learning course that provides students with opportunities to apply MBA classroom concepts to solving real-world business issues. Under the guidance of a Focus Firm Advisor, students assume leadership roles in team-based projects to address a specific organizational issue and to oversee the team's problem analysis, definition of alternate solutions, and delivery of recommendations to the client.

5111 Professional Career Development for First Semester Graduate Students

A one-hour, beginning, graduate career development course designed to enhance personal marketability by providing self-assessments, career passion discovery, career exploration and development experiences, and career resources to help prioritize and focus the student's specific internship and job search. Fee: $1000

5112 Professional Career Development for Second Semester Graduate Students
Pre-requisite(s): BUS 5111.

A one-hour graduate career development course designed to introduce personal accountability, networking skills, company/position analysis, job search strategy, interviewing skills, and negotiations to maximize the student's career development and personal marketability. Fee: $1000

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5201 In Residence I: Managing in the 21st Century
Pre-requisite(s): Acceptance into the executive MBA program.

A full-time, one-week, in-residence course designed to engage students in orientation and team building activities. Small study groups are established, individual expertise is shared, computer and math skills are enhanced, and specific course assignments are initiated.

5302 In Residence II: International Business and the Public
Pre-requisite(s): Policy Process Admission to the Executive MBA program.

This one-week in-residence experience exposes students to issues related to international business and public policy. Audiences with government officials and corporate leaders provide the participant with a global perspective on public policy and international trade issues and how they affect firm strategies. Participants focus on how these issues affect business operations in general and their organization specifically. Emphasis is on the reality of how international business is carried out and the reality of how international trade policy is developed and implemented versus textbook approaches.

5340 Studies in the Caribbean Region
Pre-requisite(s): Graduate standing.

This course is conducted in the Dominican Republic as part of the Baylor in the Dominican Republic program, which allows graduate students to experience life in the Caribbean region first-hand. Students will study the social, cultural, historical, economic, and political issues that impact businesses in the Dominican Republic and the general environment in which they operate. Students will visit a variety of enterprises and consider the dynamics of participation in the economy and society of a Caribbean nation. Fee: $50

5350 Project Management
Pre-requisite(s): Graduate standing.

This graduate course in project management is designed to enhance the work of business professionals and persons involved in construction, environmental remediation, software development, grant writing, new product development, engineering, and design. Project management planning, network building, project control, reporting, and closing will be studied, including critical

path and critical chain methodologies. Students will develop expertise in using Microsoft Project and critical chain computer software. This course introduces the tools and techniques necessary for successful and timely completion of projects in a single project environment. While briefly addressed, multi-project environments will not be covered in detail in this course. Fee: $50

5354 Business Research in Latin America (cross-listed as ENT 5354)
See ENT 5354 for course description.

5390 Management Communication
Examines principles and strategies of effective management communication in the areas of audience analysis, ethics, cross-culture, crisis, interpersonal communication, and team dynamics. Provides techniques, skills, and strategies for overcoming communication barriers and for designing and delivering executive presentations. Provides instruction in preparing effective professional reports including research, drafting, revision, format, and documentation. Examines corporate and leadership communication topics including corporate responsibility, integrity and image, communicating with the media, change, principle-centered leadership, and web-based communication, with ample opportunities for application and feedback.

5395 The Focus Firm
Pre-requisite(s): Admission to MBA program.
This course integrates the content of previous courses through an in-depth analysis of the semester's Focus Firm company with attention to day-to-day operations as well as strategic issues. The course emphasizes the practical application of theoretical knowledge in an actual company facing current, challenging problems. Students will experience a team-centered approach to learning and selling their ideas. Participants will be involved in analyzing the Focus Firm company issues, presenting their solutions to faculty and company executives of the Focus Firm. Students will receive feedback from the company executives as well as faculty on their work.

5421 Ethical Leadership
This course explores the causes of unethical behavior and expands students' understandings of the ethical challenges and responsibilities in today's diverse, interconnected, and global society. Students will reflect upon and utilize their faith principles, values, and relevant research as they learn practical techniques for promoting ethical behavior.

5490 Strategic Communication
Students cultivate principles, enhance skills, and develop winning strategies to communicate effectively in a business setting.

5601 Business Foundations I
Pre-requisite(s): Graduate business student.
The common body of knowledge in business administration comprising the following areas: a background of the concepts, processes and institutions in the financing of the business enterprise or other forms of organization; a background of the economic and legal environment as it pertains to profit and/or non-profit organizations along with ethical considerations and social and political influences as they affect such organizations and basic understanding of the concepts and applications of accounting, quantitative methods and statistics.

5602 Business Foundations II
Pre-requisite(s): Graduate business student.
The common body of knowledge in business administration comprising the following areas: a background of the concepts, processes and institutions in the financing of the business enterprise or other forms of organization; a background of the economic and legal environment as it pertains to profit and/or nonprofit organizations along with ethical considerations and social and political influences as they affect such organizations and basic understanding of the concepts and applications of accounting quantitative methods and statistics.

5V95 Internship in Business **1 to 6 sem. hrs.**

Pre-requisite(s): Minimum of twelve hours of graduate credit.

Three to six months of work experience in a domestic or international company. The work experience should be integrated into students' overall graduate program in such a way as to provide meaningful application of previously studied course material. A written report of the work experience shall be submitted to the director of the internship. Fee: $50

5V98 Special Studies in Business

Pre-requisite(s): Instructor and departmental approval required.

Individualized research or project in business. Students' proposals for special study project must be approved by the supervising faculty member. Offered on demand with instructor and departmental approval required for one to six semester hours.

BUSINESS LAW (BL)

5104 Business Foundations - Business Law

Corequisite(s): FIN 5203

This course is required for MBA and MSIS students who do not have an undergraduate degree in business from an AACSB-accredited institution. The course will provide students with a foundation in business law which is expected of all business graduate students. This course will be required as a co-requisite for FIN 5203.

5105 Employment Law

Pre-requisite(s): Admission to Executive MBA program.

The purpose of this course is to analyze the impact of employment-related statutes and court decisions on the business environment. The focus of the class will be on the impact of these laws for managers and those responsible for making employment-related decisions in the workplace. The laws will be examined from a societal (macro) perspective, as well as firm (micro) perspective. Students will participate in reviewing and drafting human-resource-related policies. Fee: $50

5110 International Business Law

Pre-requisite(s): Enrolled in the Executive MBA program.

This course provides students with an introduction to the legal environment, issues, and controversies related to conducting business internationally; basic legal research; and logical legal reasoning.

5171 Legal Aspects of Business

Pre-requisite(s): Admission to Executive MBA program.

This course provides a comprehensive overview of legal issues currently at the forefront of the increasingly complex body of laws challenging business managers. Students will be able to recognize legal issues and manage legal risks in business decision-making. The course will also acquaint students with the essential processes by which law is created and changed. Students will be challenged to increase their ethical sensitivity by exposing them to business-related legal problems that have ethical issues.

5201 Business Law: Application & Strategy

A study of the application of law to managerial decisions and the relationship between legal and business strategy. Provides students with sufficient understanding to identify and manage legal and ethical issues in global business transactions.

5303 Seminar in Employment Law

Pre-requisite(s): Graduate standing.

A study of the legal and regulatory framework governing the employment relationship, with particular emphasis on a business manager's role in providing the informed leadership necessary

to maintain a workplace free of discrimination. The course will include topics such as employment contracts, equal-opportunity law (discrimination, sexual harassment, affirmative action), wrongful discharge, and employee privacy.

5304 Legal Aspects of Financial and Commercial Transactions
Pre-requisite(s): Graduate standing.

Legal issues encountered in conducting financial and commercial business transactions in business. Students will gain knowledge to prepare them to participate in these transactions, particularly with regard to financial and accounting aspects of the transactions. The course will include a study of laws relating to business organizations, sales, commercial paper, secured transactions, documents of title, bankruptcy, securities regulations, and accountants' legal liability.

5310 Cyberlaw
Pre-requisite(s): Graduate standing.

A study of legal issues relating to cyberspace and the management of technology. Students will examine emerging cyberlaw issues such as jurisdiction; ownership and protection of intellectual property; electronic commerce; regulation of privacy, security, and online speech; and computer crimes, as well as international law and ethical issues in this area. The course is designed to provide an active learning environment for business students to prepare them to effectively manage technological innovations.

5320 International Business Law
Pre-requisite(s): Graduate standing.

Detailed review and discussion of laws related to conducting business internationally. Includes examination of Convention of International Sale of Goods and other laws related to contracts, barriers to entry into foreign markets and trade, determination of tariffs, import/export requirements, arbitration, licensing issues, and intellectual property concerns.

5345 Global Trade Compliance Management
Pre-requisite(s): BL 3305.

Management of global trade compliance as a strategic business function of international firms and the regulatory requirements of firms participating in international trade. The course provides an overview of U.S. export and import regulatory agencies, current issues in trade compliance, the role of trade compliance in the operations and strategic management of international firms, and skills necessary for a career in global trade compliance.

5V98 Special Studies in Business Law **1 to 6 sem. hrs.**
Pre-requisite(s): Graduate standing.

Individualized research in business law. Students' proposal for special study project must be approved by the supervising faculty member. Offered on demand and by consent of the advisor for one to six semester hours. May be repeated under a different topic, but not to exceed six maximum degree hours.

CHEMISTRY (CHE)

4207 Preparative Inorganic Chemistry
Pre-requisite(s): CHE 3238, 4302, and either 4225 or 4227; or consent of instructor.

A wide range of experimental techniques currently used in preparative inorganic chemistry research. Such techniques include dry bag, inert atmosphere, ion-exchange, and vacuum line manipulations; electrolytic, non-aqueous solvent, and tube furnace preparations. Emphasis will be given to both the preparation and characterization of compounds prepared in the laboratory. Fee: $92

4217 Instrumental Analysis Laboratory
Pre-requisite(s): CHE 4225 or 4227, and either credit or concurrent registration in CHE 4316.

Laboratory work in instrumental analysis with an emphasis on spectroscopy, separations, and electrochemical methods. Fee: $98

4227 Physical Chemistry Laboratory I
Pre-requisite(s): CHE 2416 and credit or concurrent enrollment in CHE 4321.

Techniques of physical property measurement, data analysis, and interpretation, with emphasis on thermodynamics, electrochemistry, surface chemistry, solutions, and kinetics. Instruction in effective report writing.Fee: $98

4228 Physical Chemistry Laboratory II
Pre-requisite(s): CHE 4125 or 4127, and credit or concurrent enrollment in CHE 4322.

Advanced work in measurement and data analysis techniques, with emphasis on lasers, molecular spectroscopy, and photochemistry. Instruction in effective report writing. Fee: $92

4237 Advanced Organic Laboratory
Pre-requisite(s): CHE 3238 and 3332.

Advanced organic synthesis, purification and analysis techniques, including the use of instrumental methods, such as inert atmosphere techniques and modern analytical and preparative chromatography. Fee: $92

4307 Advanced Inorganic Chemistry
Pre-requisite(s): CHE 4321 and CHE 4302.

Advanced topics in inorganic chemistry; molecular symmetry with applications to electronic structure and spectroscopy; reaction kinetics and mechanisms; inorganic synthesis and catalysis; bioinorganic chemistry.

4316 Instrumental Analysis
Pre-requisite(s): CHE 4321 or 4327.

Introduction to instrumental methods of analysis including spectroscopy, separations, and electrochemical methods.

4321 Physical Chemistry I
Pre-requisite(s): CHE 2416, MTH 2321, and PHY 1430; and CHE 3332 or consent of instructor.

Gases, liquids and solids, phase changes, electrochemistry, and the principles of kinetics and thermodynamics. (Not applicable to a major in biochemistry.)

4322 Physical Chemistry II
Pre-requisite(s): CHE 2416, MTH 2321, and PHY 1430; and CHE 3332 or consent of instructor.

Postulates of quantum mechanics. Application of quantum theory to simple models: particle in a box, rigid rotor, and harmonic oscillator. Electronic, rotational, and vibrational motion in molecules. Molecular energy levels and spectra. Electronic structure of atoms and molecules. Basic concepts of statistical thermodynamics.

4334 Organic Spectroscopy
Pre-requisite(s): CHE 3238 and 3332 with grades of B or above; or consent of instructor.

The most common spectroscopic methods including infrared, ultraviolet-visible, nuclear magnetic resonance and mass spectroscopies, with emphasis on the practical use of NMR and MS in structure determination problems.

4341 General Biochemistry
Pre-requisite(s): CHE 3332 with a grade of C or better.

Structure and dynamics of compounds of biological interest. (Students may not receive credit for both BIO 4307 and CHE 4341.)

4342 Topics in Human Biochemistry
Pre-requisite(s): A grade of C or better in CHE 3332; and either a grade of C or better in CHE 4341 or a grade of B or better in BIO 4307

Topics in selected areas of human biochemistry such as hormone action, neurotransmission, vision, digestion, transport.

5050 Chemistry Colloquium

A weekly, graduate-level seminar featuring speakers from science departments at Baylor, industry, medical schools, and other universities.

5101 Responsible Conduct of Research

Covers ethical and regulatory issues regarding modern scientific research.

5150 Graduate Seminar

Pre-requisite(s): Enrollment in the graduate program.

A seminar program in which students will be required to present a paper for evaluation before the graduate faculty and other graduate students. Must be taken two times for the master's degree and three times for the Ph.D. degree.

5179 Research Seminar

Pre-requisite(s): Enrollment in the graduate program.

A weekly colloquium in which students are required to present papers and study the literature in the area of their research project. May be repeated, but no more than three semester hours may be counted on a master's degree and no more than six may be counted on the Ph.D. degree. May not be used to fulfill course work requirements.

5260 Scientific Communication

Pre-requisite(s): Graduate standing.

This experiential-learning course, designed for first-year graduate students, provides instruction and practice in the development of an original research proposal. Strategies for effective oral and written communication of scientific information are emphasized, along with the importance of mastering primary literature in the chosen field of interest.

5301 Chemistry of the Elements

Pre-requisite(s): CHE 4301 or consent of instructor.

Comparative chemistry of the Main Group and Transition elements; relationships between structure and reactivity; energetics and kinetics of inorganic reactions.

5302 Symmetry and Group Theory in Chemistry

Pre-requisite(s): CHE 4301 or consent of instructor.

Application of symmetry and group theory to chemical bonding and spectroscopic selection rules; use of character tables; electronic and vibration spectroscopy.

5304 Special Topics in Inorganic Chemistry

This course concerns characterization of redox active inorganic complexes by a number of physical methods. Topics covered include electronic structure and geometry (Group theory, MO diagrams), orbital energies of ground and excited states (UV-vis absorbance/emission), and ways of accessing and interpreting changes in oxidation states (electrochemistry, Marcus theory). Symmetry and group theory are fundamental to many of these applications and will be introduced.

5305 Organometallic Chemistry and Homogenous Catalysis

Pre-requisite(s): Consent of instructor.

Chemical reactions of organometallic compounds and their role in homogeneous catalysis with emphasis on the transition metals. Reactivity patterns and reaction mechanisms in organometallic chemistry. Factors influencing stabilities and reactivities of metal-carbon bonds.

5306 Bioinorganic Chemistry

An overview of the biological chemistry of metal ions. Emphasis will be on the structural motifs of metalloproteins and their associated reactivities in relation to physiological function.

5310 Advanced Chemical Instrumentation
Pre-requisite(s): CHE 4217 and 4316.

Principles of chemical instrumentation, including principles of electronic signal handling, sources of noise and signal-to-noise theory, noise reduction techniques such as modulation and phase-sensitive detection, introductory information theory, introductory geometrical optics, and vacuum systems.

5312 Advanced X-omics Mass Spectrometry

Understanding of chemical interactions within complex mixtures, such as biological fluids and environmental samples, requires simultaneous characterization of all sample components at the molecular level. State-of-the art high performance mass spectrometers, coupled to various separation techniques, provide the necessary sensitivity, resolving power, and multidimensionality for comprehensive characterization of complex mixtures. This course covers current topics in x-omics research (including genomics, metabolomics, petroleomics, and proteomics) with a focus on bioanalytical aspects of utilizing ion generation methods, ion-molecule reactions, ion fragmentation techniques, particle analyzers/detectors, and multidimensional data generation/analyses. Moreover, fundamental aspects and practical significance of accurate mass measurements and conformational analyses in biomedical research and drug development strategies are presented.

5314 Separation Science
Pre-requisite(s): CHE 4316 or consent of instructor.

Theoretical foundations and practical applications of analytical separations with emphasis on gas, liquid, supercritical fluid, and ion chromatographies.

5315 Electroanalytical Chemistry
Pre-requisite(s): CHE 4316 or consent of instructor.

Modern electroanalytical techniques and their application to analytical, kinetic, mechanistic, and synthetic problems.

5316 Analytical Spectroscopy
Pre-requisite(s): CHE 4316.

Theoretical and practical aspects of analytical optical spectroscopy with emphasis on instrumentation.

5320 Thermodynamics and Statistical Thermodynamics
Pre-requisite(s): CHE 4322.

Principles of classical and statistical thermodynamics.

5322 Chemical Kinetics and Mechanisms
Pre-requisite(s): CHE 4322.

Theory of rate processes and the use of kinetic data in the interpretation of reaction mechanisms.

5323 Structural Studies by X-ray Crystallography
Pre-requisite(s): CHE 4324.

Preliminary studies of X-ray structure determination and solving the phase problem by various techniques to be learned before employing methods of structural refinement. Results and conclusions derived from refined structures will be applied to chemical research problems. Practical experience of crystal structure analysis will be the main emphasis.

5325 Quantum Chemistry
Pre-requisite(s): CHE 4322.

Comparison of classical and quantum mechanics and application of quantum mechanics to electronic structure of the atoms and to the study of molecules and chemical bonds.

5326 Lasers and Molecular Spectroscopy
Pre-requisite(s): CHE 4321 and 4322.

Properties of lasers and the fundamental principles of laser operation. Modern application of lasers to the study of spectroscopy and energy flow in atoms and molecules.

5331 Stereochemistry
Pre-requisite(s): CHE 3332 and credit or concurrent enrollment in CHE 4322.
The stereochemistry of compounds of carbon and other elements, steric effects on physical and chemical properties of compounds, and recent developments in the field.

5334 Heterocyclic Chemistry
Pre-requisite(s): CHE 3238, 3332 with grades of B or above; or consent of instructor.
The chemistry of heterocyclic compounds including substances containing nitrogen, oxygen, and sulfur. Synthesis, typical reactions and reaction mechanisms will be emphasized.

5335 Physical Organic Chemistry
Pre-requisite(s): CHE 3238 and 3332 with grades of B or above; and credit or concurrent enrollment in CHE 4321; or consent of instructor.
Organic reaction mechanisms, including kinetics, steric and electronic effects, and molecular orbital considerations.

5336 Advanced Synthesis and Natural Products
Pre-requisite(s): CHE 4332 or consent of instructor.
A study of modern synthetic organic chemistry with particular emphasis on the synthesis of complex natural products and reaction mechanisms.

5345 Selected Topics in Bioanalytical Chemistry
This current topics course covers current breakthroughs in the development and application of bioanalytical tools. Applications of bioanalytical tools in fundamental biochemical science, as well as in biomedical applications, are included.

5346 Chemical Biology
Pre-requisite(s): CHE 4341 or BIO 4307.
Revolutionary transformations in chemistry and biology have led to a merging at the boundary of these disciplines where contributions from both fields impact our molecular and quantitative understanding of biology. This course covers current research in chemical biology with a focus on enzyme mechanisms, molecular probes, biological pathways, chemical tools, and analytical methods to study biology, while also harnessing biological activity for chemical syntheses and commercial applications.

5347 Physical Biochemistry
Pre-requisite(s): CHE 4341 or BIO 4341; and CHE 4321 or 4327; or consent of instructor.
Theory and applications of physical chemistry to systems of biological interest including such topics as reaction kinetics, protein folding and denaturation, ligand interactions, x-ray diffraction of proteins and nuclear magnetic resonance spectroscopy.

5348 Enzymology
Pre-requisite(s): CHE 4341 or BIO 4307.
Kinetics, mechanisms, regulation, and other topics related to enzyme-catalyzed reactions.

5V60 Advanced Special Topics in Chemistry 1 to 3 sem. hrs.
Topics in chemistry that are not covered in other graduate chemistry courses. May be repeated for credit if topic is different.

5V98 Graduate Research 1 to 10 sem. hrs.
Pre-requisite(s): Graduate standing.
Required of all graduate students. For research credit prior to admission to candidacy for an advanced degree. Credit will be given for the amount of work done. May be repeated for credit through 45 hours.

5V99 Thesis 1 to 9 sem. hrs.
Credit for the amount of work done. In no case will fewer than six semester hours be accepted for a thesis. Required of all master's students.

6V99 Dissertation **1 to 9 sem. hrs.**

Required of all doctoral candidates. In no case will fewer than twelve semester hours be accepted for a dissertation.

CHILD AND FAMILY STUDIES (CFS)

4359 Parenting

Factors to consider in becoming a parent, child-rearing practices, diverse parenting situations, and parent-child communication. (3-0)

4363 Adolescent Development

Pre-requisite(s): Upper-level standing.

The psychosocial, social-emotional, and cognitive language development of adolescents.

4365 Adult Development

Pre-requisite(s): Upper-level standing or consent of instructor.

Physical, intellectual, and social-emotional development in adulthood, the developmental tasks associated with adulthood, and adult learning principles.

4368 Family Perspectives on Aging

Pre-requisite(s): Upper-level standing.

A study of normative aging processes within the family context. (3-0)

5330 Human Development and Family Science (Cross-listed as CRED 7355)

A study of individual development, interpersonal and intra-family relationships, and development of the family throughout the life cycle.

5358 Planning and Administration of Child and Family Programs (Cross-listed as CRED 7380)

Administration and planning of programs serving children and families. Emphasis is placed on program planning, evaluation, ethics, and professionalism as they apply to child and family programs.

5367 Family Transitions, Stress and Resilience (Cross-listed with CRED 7367).

A study of family transitions, stress, coping, adaptation,and resilience, using current theory and models to understand the processes used by families to cope and adapt as the encounter stressful events.

CHINESE (CHI)

4301 Chinese Literature and Culture I

Pre-requisite(s): CHI 3302 or consent of instructor.

An analytical study of the representative works of literature, history, and philosophy from the early Zhou through the Han dynasties.

4302 Chinese Literature and Culture II

Pre-requisite(s): CHI 3302 or consent of instructor.

An analytical study of the representative works of literature, history, and philosophy since the Wei dynasty.

CLASSICS (CLA)

4368 Special Topics in Greek and Roman Art (Cross-listed as ART 4368)
See ART 4368 for course information.

4331 The Archaeology of Sicily and Southern Italy
Study of monuments and topographical archaeology of southern Italy and Sicily. Readings include primary sources and analyses of excavated material.

4369 Greek and Roman Sport and Spectacle (Cross-listed as ART 4369)
See ART 4369 for course information.

4V01 Topics in Classical Literature **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Various texts to be read (in translation) are selected to meet the needs of the student. With content changed, this course may be repeated up to a total of six semester hours.

5300 Proseminar in Classics
Introduction to the history, tools and resources, and main methods of research of the discipline of classics. In addition, the course provides an overview of the major subdisciplines of classical studies such as ancient history, epigraphy, papyrology, archaeology, and numismatics.

5302 Topics in Ancient History
Specific topics in the history of ancient Greece and Rome and related fields with attention to the methodologies of ancient historical inquiry. May be taken five times, provided topics change.

5V90 Final Project **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of project director.
Supervised research for final project.

5V99 Thesis **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of the thesis director.
Supervised research for master's thesis.

COMMUNICATION SCIENCES AND DISORDERS (CSD)

4301 Introduction to Clinical Audiology
Pre-requisite(s): Must have completed and earned a "B" or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.
Hearing sciences and approaches for evaluating hearing: anatomy and physiology of the ear, the decibel, ear pathology, pure-tone audiometry, speech audiometry, and acoustic-immittance audiometry.

4302 Language Disorders in Children
Pre-requisite(s): Must have completed and earned a "B" or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.
Basic principles of intervention and assessment for children with language impairments.

4309 Medical Speech Pathology
Pre-requisite(s): Must have completed and earned a "B" or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.
Etiologies, characteristics, diagnosis, and treatment of disorders associated with medical speech pathology.

4312 Advanced Clinical Audiology
Pre-requisite(s): CSD 4301.

Routine and advanced audiologic measures, including masking and evoked-potential tests. Practical clinical experiences.

4352 Diagnostic Methods
Pre-requisite(s): Must have completed and earned a "B" or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.

A study of diagnostic methods used in speech and language pathology, including interviewing, taking case histories, testing, and counseling. Evaluation of the standardization, reliability, and validity of existing tests. Practical application is required.

4358 Speech Science
Pre-requisite(s): Must have completed and earned a 'B' or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.

Basic sciences underlying speech and hearing: physics of sound, the decibel, instrumentation, speech production, speech perception, and audition.

4368 Introduction to Aural Rehabilitation
Pre-requisite(s): CSD 4301 or consent of instructor; and must have completed and earned a "B" or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.

Methods for rehabilitating persons with hearing impairment: evaluating communicative needs, amplification devices, auditory-visual training, and modes of communication for the deaf and hearing impaired.

4477 Clinical Methods
Pre-requisite(s): CSD 3308; and must have completed and earned a "B" or better in each of the following courses: CSD 1308, 2318, 2351, and 3357.

Methods for treating individuals who have communication disorders. Observation of therapy conducted in the Baylor Speech, Hearing, and Language Clinic is required.

4V85 Special Problems in Communication Sciences and Disorders 1 to 3 sem. hrs.
Pre-requisite(s): Fifteen semester hours in Communication Sciences and Disorders.

A conference course providing additional study in communication sciences and disorders. May be repeated once for credit.

5149 Clinical Practicum in Speech Pathology

Practicum in evaluation and treatment of individuals who have communication disorders. Fee: $50

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5304 Advanced Aural Rehabilitation
Pre-requisite(s): CSD 4368.

Hearing aids, cochlear implants, vibrotactile devices, and therapy programs for hearing-impaired persons.

5311 Aphasiology

Etiology, symptomatology, and treatment of aphasia and kindred disorders.

5312 Fluency Disorders
Pre-requisite(s): CSD 4307.

Nature, evaluation, treatment, and current research trends in stuttering.

5313 Augmentative Communication and Severe Populations

Exploration of selection and teaching of augmentative and alternative communication, and a focus on populations with severe language disorders including autism.

5314 Voice Pathology

Pre-requisite(s): CSD 3308 and 4309.

Application of principles of voice science to the treatment of organic and functional voice disorders.

5316 Motor Speech Disorders

Etiologies, symptoms, classifications, evaluative procedures, and treatments of developmental and adult motor speech disorders.

5317 Cleft Lip and Palate

Etiologies, classifications, evaluation procedures, and management of communication disorders associated with cleft lip and palate and related orofacial dysmorphologies.

5318 Methods in Graduate Study in Communication Sciences and Disorders

Methods necessary to evaluate literature, to conduct research, and describe results in communication sciences and disorders.

5320 Neurology and Advanced Instrumentation

Study of the neuroanatomy and neurophysiology of the mechanisms associated with speech, language, and swallowing, and the instrumentation and latest technological advances used to study speech, language, and swallowing.

5324 Adolescent Language and Learning Disabilities

Pre-requisite(s): CSD 2318.

A neuropsychological approach to the etiology, classification, diagnosis, and treatments of learning disabled children.

5325 Speech Sound Disorders

Current research, assessment, and treatment of speech-sound disorders (SSD) including articulation and phonological disorders with functional and organic etiologies.

5328 Diagnosis and Treatment of Dysphagia

Development of swallowing, etiologies, evaluative procedures, and management of swallowing disorders.

5330 Cognitive Linguistic Communication Disorders

Neuropathology, symptomology, assessment, and treatment of cognitive linguistic communication disorders associated with right hemisphere damage, traumatic brain injury, and dementia.

5332 Traumatic Brain Injury Seminar

Familiarizes students with research literature regarding the neuropathology, symptomatology, assessment and treatment of persons having traumatic brain injury.

5334 Multicultural Issues in Speech-Language Pathology

Relates cultural background to normal development of speech and language. Topics include sound system acquisition, syntax, pragmatics, and professional issues and concerns.

5337 Advanced Child Language Disorders

Contemporary research on language and reading disorders, evidence-based practice, and language/literacy methods of prevention, assessment, and treatment.

5338 Instrumentation and Advanced Speech Science
Pre-requisite(s): CSD 4307 or consent of instructor.
Principles and techniques of electronics and new technology used in the diagnosis and treatment of pathologies of speech and swallowing, including videostrobolaryngoscopy, digital signal analyses, and flexible fiberoptic endoscopic evaluation of swallowing. Fee: $50

5351 Speech and Language Neurology
Neuroanatomy and neurophysiology as applied to the evaluation of normal and pathological speech and language behaviors.

5353 Advanced Medical Speech Pathology
Advanced medical diagnostic procedures and treatment techniques associated with speech pathology patients in an advanced medical setting.

5649 Speech Pathology Internship
Supervised off-campus experience in speech pathology. Intern placement will be related to students' specialized area of interest. Students must take a total of six hours. Fee: $100

5V07 Seminar in Audiology **1 to 9 sem. hrs.**

5V35 Problems in Communication Sciences and Disorders **1 to 9 sem. hrs.**
Designed to give individual students opportunities for additional work in their area of concentration in either of the two divisions of the department. May be repeated once in a different semester for a maximum of six semester hours.

5V39 Advanced Clinical Practicum in Audiology **1 to 6 sem. hrs.**
Pre-requisite(s): Nine semester hours in audiology including CSD 4301 and 5304.
Supervised practicum in audiology using speech audiometry. Hearing aid selection.

5V48 Seminar in Speech Pathology **1 to 9 sem. hrs.**
Published research, theoretical and clinical, in speech and hearing and allied fields.

5V99 Thesis **1 to 6 sem. hrs.**
Research, data analysis, writing, and/or oral defense of an approved master's thesis. At least three hours of CSD 5V99 are required for thesis.

COMMUNICATION STUDIES (CSS)

4301 Organizational Communication
Pre-requisite(s): Upper-level standing or consent of instructor.
Communication within the organization and its relationship to organizational structure, roles, leadership, and management orientations.

4302 Communication Training and Development
Pre-requisite(s): Upper-level standing or consent of instructor.
Theory and practice of performing and supervising training activities in an organizational setting. Emphasis on the design, execution, and evaluation of communication training and development programs and strategies. Fee: $50

4303 Leadership and Communication
Pre-requisite(s): Upper-level standing or consent of instructor.
The intersection between leadership and communication, emphasizing the theory, research, and practice of leadership communication.

4304 Advanced Small Group Theory and Practice
Pre-requisite(s): CSS 1301 or 1302 and CSS 3304; and upper-level standing or consent of instructor.
Examines advanced and complex types of small-group interaction, leadership, and collaboration. Taught in London.

4305 Nonprofit Organizational Communication
Pre-requisite(s): CSS 4301.
Survey of communication dynamics and issues in nonprofit organizations. Emphasis on assessing and developing best practices in external and internal communication. Course topics include: stakeholder messaging, interorganizational collaboration, member relationships, and role development.

4310 Politics and Communication (Cross-listed as PSC 4310)
See PSC 4310 for course information.

4311 Conflict and Communication
Pre-requisite(s): Upper-level standing or consent of instructor.
The role of communication in managing conflict in interpersonal, group, organization, and community contexts.

4312 Systemic Inquiry
Pre-requisite(s): Upper-level standing.
Examines advanced and complex types of communication contexts involving relational and group facilitation strategies, systemic interviewing practices, and the development of a basic understanding of systemic inquiry as a communication management strategy. Taught in London.

4313 Communication and the Family
Pre-requisite(s): Upper-level standing or consent of instructor.
Survey of communication issues related to theory and research regarding relationships within the modern family system.

4314 Communication Assessment in Organizational Settings
Pre-requisite(s): CSS 4301 or consent of instructor.
Design and implement a communication assessment of for-profit or non-profit organizations.

4315 Health Communication
Pre-requisite(s): Upper-level standing or consent of instructor.
Health communication theory and practice, including patient-provider communication, healthcare organizational communication, and health information technology.

4316 Advanced Interpersonal Communication
Pre-requisite(s): CSS 3311 and upper level standing or consent of instructor.
Advanced survey of theory and research regarding communication and personal relationships.

4350 Rhetoric of Women and Gender
Pre-requisite(s): Upper-level standing or consent of instructor.
Analyzes the historical fight for women's rights and contemporary arguments about gender-based rights through the tools of rhetorical criticism.

4351 Criticism of Contemporary Public Address (Cross-listed as PSC 4351)
Pre-requisite(s): Upper-level standing or consent of instructor.
Significant public speeches in contemporary society, with emphasis on applying principles and methods of rhetorical criticism.

4352 Corporate Advocacy and Public Policy
Pre-requisite(s): Upper-level standing or consent of instructor.
Influence of contemporary organizations on public attitudes and public policy through analysis of communication campaigns during both favorable and unfavorable conditions.

4353 Public Discourse and Foreign Policy (Cross-listed as PSC 4335)
Pre-requisite(s): Upper-level standing.

An analytical approach to the discourse generated by United States foreign policy in the post-World War II era. Topics covered include the nature of public opinion and foreign policy, rhetorical and political constraints on foreign policy discourse, and in-depth analysis of the arguments for and against the conflict in Vietnam.

4354 African American Communication (Cross-listed as PSC 4340)
Pre-requisite(s): Upper-level standing.

Rhetorical strategies of African Americans, focusing on the historically important documents of oratory, argumentation, homiletic, and narrative.

4394 Rhetorical Theory
Pre-requisite(s): Upper-level standing or consent of instructor.

Selected theories of persuasion in Western culture from the Greco-Roman period to the present. Topics covered include the relationship of rhetoric and poetic, arguments for a behavioristic approach to rhetoric, and contemporary claims concerning rhetoric as a way of knowing.

4395 Visual Rhetoric
Pre-requisite(s): Upper-level standing or consent of instructor.

Theories and methodologies pertaining to visual rhetoric.

4396 American Rhetoric
Pre-requisite(s): Upper-level standing or consent of instructor.

Origin and development of rhetoric in American social movements, with emphasis on the characteristics of various types of communication situations and the discovery, analysis, and evaluation of common persuasive strategies.

4397 Public Discourse and the Classic Liberal Tradition
Pre-requisite(s): Upper-level standing or consent of instructor.

Analysis of major speeches, pamphlets, and essays in England and America on politics and political change from the early seventeenth century through the American Revolution. Topics addressed include the birth of the public sphere, church and state relations, and natural rights.

4399 Workshop in Directing the Speech Program
Pre-requisite(s): Consent of instructor.

Intended primarily for directors of speech activities in high schools and colleges. May be repeated once for credit.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5310 Modern Communication Theory

An overview of criticism regarding continuing developments in communication theory.

5311 Seminar in Interpersonal Communication

An in-depth analysis of interpersonal theory and research.

5312 Seminar in Argumentation
Pre-requisite(s): CSS 4352; or consent of instructor.

Advanced theoretical work on the form and function of argumentation. This course explores field theory, examines the utility of argument diagram, and considers approaches to ordinary language argument.

5313 Seminar in Rhetoric and Society
An analysis of the function of rhetorical discourse in contemporary society.

5314 Seminar in Small-Group Communication
An analysis of small-group communication theory and research with a focus on topics such as decision making, leadership, social influence, and interaction analysis.

5316 Seminar in Organizational Communication
An analysis of organizational communication theory and research.

5317 Seminar in Organizational Change and Communication
Organizational change is viewed from a communication perspective with special attention placed on the conversational architectures that create sensible and coherent change.

5318 Seminar in Rhetoric and the Public Sphere
Pre-requisite(s): Graduate standing or consent of instructor.
Analysis of major theoretical statements on the changing nature of the public sphere in western democracies and the related implications for the role of argumentation and rhetorical discourse in the formation of public policy.

5319 Seminar in Family Communication
An advanced examination of scholarly theory, research, and quantitative/qualitative research methods used for academic investigation of topics and issues related to communication within the family.

5320 Leadership and Persuasion
Explores the interwoven relationship between educational leadership and persuasive communication. By the end of the class students should be able to fashion compelling persuasive messages as well as interpret the attempts at persuasion by others.

5321 Organizational Membership and Identification
Explores the relationship between communication and one's self-concept as it is defined and shaped by membership in workplaces, civic organizations, churches, clubs, and other social groupings. Discussion and analysis of the processes and practical consequences of organizational identification.

5341 Rhetoric and Cultural Studies
Methods of rhetorical criticism influenced and intersected by cultural studies, beginning with early twentieth century and continuing into present day.

5350 Seminar in Presidential Rhetoric (Cross-listed as PSC 5350)
See PSC 5350 for course information.

5351 Methods of Graduate Study
Methods of quantitative inquiry in the study of communication theories. Emphasis on application theory and methods in a variety of communication research contexts, e.g., organizational communication, mass communication.

5352 Seminar in Methods of Rhetorical Criticism
Quantitative/critical methodology utilized in the analysis of public discourse.

5380 Internship in Communication
Pre-requisite(s): Consent of graduate program director.
Provides graduate students opportunity for application of communication-related skills and knowledge under the supervision of a professional employer in a corporate organization.

5V35 Problems in Communication **1 to 6 sem. hrs.**

Designed to give individual students opportunities for additional work in their area of concentration. May be repeated in a different semester for a maximum of six semester hours.

5V36 Seminar in Communication **1 to 3 sem. hrs.**

Seminar topics vary each semester. One to three semester hours may be earned in a semester. May be repeated once with change in topic for a maximum of six semester hours.

5V90 Professional Paper in Communication **1 to 3 sem. hrs.**

Satisfies the non-thesis option for the Master of Communication. Under the direction of a supervising professor, a student will select a problem or topic in communication and will write a substantial paper or produce a substantial project for submission to the faculty. Maximum three hours.

5V98 Praxis Practicum

Pre-requisite(s): CSS 5V35 and 5351.

At least 150 hours of applied learning in a communication-centered role/field. Final project that includes a written and verbal report and draws from scholarly literature, original research, and field experiences.

5V99 Thesis **1 to 6 sem. hrs.**

Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of CSS 5V99 are required.

COMPUTER SCIENCE (CSI)

4321 Data Communications

Pre-requisite(s): CSI 3336.

Fundamentals of computer networking including data transmission, communication software, protocols, simple networks and internetworking.

4322 Numerical Analysis (Cross-listed as MTH 4322)

See MTH 4322 for course information.

4328 Numerical Linear Algebra (Cross-listed as MTH 4328)

See MTH 4328 for course information.

4331 Programming Language Design and Implementation

Pre-requisite(s): CSI 4330.

Design and implementation of high-level languages, focusing on compiler design and implementation. Topics include data types, control structures, and the relationship between syntax and semantics. Course project includes designing and programming a compiler.

4335 Database Design I

Pre-requisite(s): CSI 3342.

Concepts for current relational database design and implementation, including SQL, ER diagrams, normalization, JDBC, XML and DBMS components. Semester project designing a relational database. Fee: $70

4336 Introduction to Computation Theory

Pre-requisite(s): CSI 3344.

Several models of computation and their related languages. Topics will include finite automata and regular languages, push-down automata and context-free languages, linear-bounded automata and context-sensitive languages. Turing machines and phrase structure languages, closure properties, decidability results, non-determinism.

4337 Introduction to Operating Systems
Pre-requisite(s): CSI 3336.
Operating system design and implementation. Topics include process control and synchronization, memory management, processor scheduling, file systems, and security. Course projects implement parts of an operating system. Fee: $50

4341 Computer Graphics
Pre-requisite(s): CSI 3334 and (MTH 2311 or MTH 2321).
Introduction to graphic representation and display of information and objects by computer. Topics include hardware display technology and algorithms for two-dimensional and three-dimensional graphics. A current graphic system model will be used for programming assignments. Fee: $50

4344 Object-Oriented Development
Pre-requisite(s): CSI 3342.
Object-oriented analysis and design methods. Group software projects.

4350 Introduction to Artificial Intelligence
Pre-requisite(s): CSI 3344.
Artificial intelligence techniques and methodology which treat knowledge and knowledge representation, formal logic, (classical propositional logic, first order predicate logic, automated theorem proving), pattern recognition; natural and programming language processing, (syntax, contextual constraints, semantics, compilers, LISP, PROLOG). (3-0)

4352 Introduction to Data Mining
Pre-requisite(s): CSI 3335, CSI 3344.
Introduction to the concepts, techniques, and applications of data warehousing and data mining. Topics include design and implementation of data warehouse and OLAP operations; data mining concepts and methods such as association rule mining, pattern mining, classification, and clustering; applications of data mining techniques to complex types of data in various fields.

5010 Graduate Seminar
Pre-requisite(s): Graduate standing in computer science.
Research presentations by the graduate faculty, outside speakers, and select advanced graduate students. Attendance at various functions is also required.

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5321 Advanced Data Communications
Pre-requisite(s): CSI 4321 or equivalent.
Survey of current and seminal research in networking.

5324 Software Engineering
Methods for developing and maintaining software systems; system software life cycle, requirements elicitation, specification and design methods, planning, maintenance, configuration management, documentation and coding standards, cost estimation, metrics and quality attributes; class project.

5325 Introduction to Machine Learning
Pre-requisite(s): CSI 4336 or consent of instructor.
An introduction to topics in machine learning, including supervised and unsupervised learning, modeling for regression and classification, naive Bayes methods, kernel-based learning, support vector machines, statistical and mathematical models for learning, and model assessment and prediction.

5330 Advanced Computational Biology (Cross-listed as BINF 5330)

Advanced course of computational methods for understanding biological systems. Topics include string matching, suffix tree analysis, sequence alignment, and other graph theoretic algorithms for gene mapping and sequencing, phylogenetic inference, and biological network analysis.

5335 Advanced Database

Pre-requisite(s): CSI 3334 and 3335.

A continuation of database system implementations to include object-oriented and knowledge-based systems. Additional topics covered are physical-data organization, database integrity, security, transaction management, and distributed database management.

5336 Data Models

Pre-requisite(s): CSI 4334 and 4335.

Conceptual and abstract parts of databases. Topics include commonly used data models (hierarchical, network, relational, semantic network and infological) and the use of data models for database design and operation.

5337 Advanced Operating Systems

Pre-requisite(s): CSI 4337 and STA 4385; or PSY 4300.

Advanced topics in operating systems including queuing models, performance measurement and evaluation, security and protection, and design issues involved in operating system design.

5338 Advanced Computer Organization

Pre-requisite(s): CSI 3338 or consent of instructor.

Advanced topics in computer systems organization, including techniques used in large-scale computer systems, parallel and pipeline architectures, stack machines, and other non-von Neumann architectures.

5342 Software Specification and Design

Pre-requisite(s): CSI 4336.

Overview and comparison of existing formal specification methods. In-depth description and use of an existing method, such as algebraic specifications. Mathematical foundations of the method. Applications to practical examples. Use of an existing specification language.

5343 Introduction to Human Computer Interaction

Introduction to Human Computer Interaction is a research seminar designed to explore the issues of design, organization, implementation, communication, training, and management which confront humans as users of computer environments.

5344 Analytic Models

Pre-requisite(s): STA 3381.

Computer modeling of a variety of systems. Topics include selections from: linear programming, network analysis, queuing theory, game theory, and statistical methods and models.

5345 Parallel Systems

Description and evaluation of parallel hardware and software. Distributed-memory versus shared-memory. Design and implementation of parallel programs using parallel hardware and software.

5346 Design Automation

This course is about automating the design of Very Large Scale Integrated circuits. The curriculum covers compiled and event driven simulation algorithms, differential simulation techniques, current literature in electronic simulation, channel routing algorithms, Lee routers, partitioning, current literature in placement and routing, synthesis algorithms, and current literature in logic and circuit synthesis.

5350 Advanced Algorithms
Pre-requisite(s): CSI 3344 or graduate standing.
Advanced data structures, algorithm design, and analysis. Topics include common data structures, algorithms, implementation, classes of algorithms, algorithm analysis, computational tradeoffs, and adaptation of familiar algorithms to new problems.

5352 Advanced Object-Oriented Development
Pre-requisite(s): CSI 4344.
Object-oriented analysis, design, and implementation using C++ and a graphical user interface. Principles, methods, and building blocks. Identification and implementation of objects. Class libraries and widget sets. Group projects.

5353 Multimedia Systems
Overview of systems requirements to handle multimedia information. Topics include synchronization, content-based information retrieval, protocols, and media type definitions. Theory and applications are covered.

5354 Advanced Software Engineering
Pre-requisite(s): CSI 5324 or consent of instructor.
Advanced topics in software engineering research, including techniques used in the modeling and analysis of complex systems.

5355 Data Analysis
Pre-requisite(s): Graduate standing.
Introduces the fundamental data analysis algorithms used in research.

5360 Information Retrieval & Natural Language Processing
Pre-requisite(s): CSI 3344, MTH 2311 or equivalent.
Introduce fundamental and advanced algorithms in Information Retrieval and Natural Language Algorithms. Topics include Language Modelling, Retrieval Algorithms and Evaluation, and Language Processing techniques such as tagging, parsing, and lexical semantics. Applications and research topics are also covered.

5388 Advanced Topics in Human-Computer Interaction
This class investigates the "emerging" next generation of user interaction with a focus on the design and evolution of interaction techniques. Variety of user interaction styles may include gesture, virtual reality, augmented reality, ubiquitous, tangible, lightweight, tacit, passive, affective, perceptual, context-aware, and multi-modal interfaces.

5V90 Special Problems **1 to 9 sem. hrs.**
Pre-requisite(s): Consent of instructor.

5V92 Master's Research **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Concentrated research for the purpose of determining whether the thesis or project option is most appropriate, and for the initial selection of a topic area.

5V93 Special Topics in Computer Science **1 to 4 sem. hrs.**
May be repeated for credit, provided topic is not duplicated, for a maximum of eighteen semester hours total.

5V96 Master's Project **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.

5V99 Thesis **1 to 9 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Research, data analysis, writing, and oral defense of an approved master's thesis. At least three hours of CSI 5V99 are required.

6V10 Doctoral Prospectus Research **1 to 6 sem. hrs.**

Pre-requisite(s): Instructor approval.

Supervised research for developing a dissertation prospectus. Prepares students for the preliminary exam required for students to advance to candidacy. A student may repeat this course for credit with a maximum of ten total hours. Registration for this course is sufficient for achieving full-time status.

6V90 Special Topics in Computer Science **1 to 3 sem. hrs.**

Special topics in Computer Science. This course may be taken up to 6 times, on a different topic each time, for up to 18 hours of credit.

6V99 Dissertation **1 to 12 sem. hrs.**

Research, data analysis, writing, and oral defense of an approved doctoral dissertation topic.

CURRICULUM AND INSTRUCTION (EDC)

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5300 Advanced Elementary Social Studies Methods

Preparation to become effective social studies educators capable of teaching elementary students the content knowledge, the intellectual skills, and the civic values necessary for fulfilling the responsibilities of citizenship in a participatory democracy.

5302 Linguistics: Implications for Improving Reading Instruction

Several linguistic fundamentals of the American English language and the manner in which these fundamentals may affect children's reading development. The linguistic fundamentals investigated are origin of the language, language development, phonology, morphology, and syntax. Special emphasis is placed on the function dialects have in children's reading development. An integral strand of the course is instruction strategies for implementing the linguistic fundamentals in classroom reading instruction.

5303 Models of Teaching and Learning

Teaching-learning situations. Emphasis on learning techniques, methods, and materials of instruction, functions of the different subject matter areas. Special projects assigned to each student.

5304 Problems in Teaching Reading

Designed to give the classroom teacher, administrator, and reading specialist insight concerning the problems of the retarded reader. Causes, diagnostic procedures, and remedial methodology for increasing the reading efficiency of children will be emphasized.

5310 Principles and Strategies for Effective Discipline and Classroom Management

A study of the principles of classroom discipline and management, including analysis of the dynamics of the classroom, application and evaluation of interactive models of classroom management, and legal issues of student discipline.

5311 Introduction to Qualitative and Quantitative Research

An introduction to the research process applied to Curriculum and Instruction topics, including design of the study, data collection, and analysis using qualitative and quantitative methods. Includes a discussion of variables, sampling, reliability, validity, and ethics of research. Students will read and interpret published research and develop a research proposal.

5312 Methods and Materials: Alternative Approaches for Teaching Reading

Adapting materials and methods of reading instruction to aid teachers meet the identified needs of learners.

5313 Media Literacy Across the Curriculum

An examination of media literacy and its place in the curriculum. Students will examine major themes and issues in media literacy education; acquire skills in deconstructing, using, and creating various media; and develop curriculum involving media literacy including appropriate methods of assessment.

5314 Clinical Experiences in Teaching Reading

Pre-requisite(s): EDC 5304 or 5312; or consent of instructor.

Remedial and clinical methodologies and techniques utilized with pupils referred because of reading disabilities.

5315 Foundations of the American Economy (Cross-listed as AMS 5315)

Behavior of households and business firms in determining the allocation of scarce resources among competing needs in a free market economy for those with no or little previous training in economics. Basic economic analysis is introduced as an aid in understanding the problems of energy, consumerism, unemployment, inflation, and pollution, among others. The course is designed to meet the requirements of Texas state law mandating instruction in free enterprise and economics education.

5316 Basic American Documents (Cross-listed as AMS 5316)

The development of the American political, economic, and social system by reference to the basic documents which undergird that structure. Emphasis is placed on understanding how the system developed and how that development reflected the thoughts of the American public as reflected in those documents. Particular emphasis is placed on the Constitution, court interpretation, and landmark Federal legislation.

5317 Special Techniques in Secondary Schools

Special techniques and methodology that the modern teacher must now master. Emphasis is given to diagnosing learning difficulties, specified techniques in directing learning activities, and ways of meeting the individual differences found among high school pupils.

5318 Elementary Language Arts

Development of strategies for facilitating communication skills in the elementary grades and integration of language arts across the curriculum.

5319 Reading in the Secondary School

The application of developmental reading precepts to the reading requirements of the secondary content subjects. Peer teaching emphasizes techniques and materials for individualized reading assignments.

5320 Elementary Science and Social Studies

A study of the national standards and Texas requirements for science and social studies content in the elementary classroom with an emphasis on teaching strategies to promote active learning.

5321 Contemporary Curriculum-Designing and Implementing

Contemporary philosophies and practice for designing and implementing the school's instructional program for administrators, supervisors, and teachers. In addition to placing an emphasis on the changing philosophies and patterns for implementing the curriculum, stress will also be given to current innovations and experimentation in curriculum.

5322 Learning and the Young Child

Relation of theories of learning and concept development to the young child.

5323 Contemporary Curricula for the Young Child
Application of learning and developmental theories to the design and evaluation of curricula for the young child.

5324 Alternative Models of Instruction for the Young Child
Use of research literature to examine, understand, and evaluate various models of instruction for the young child.

5325 Current Issues and Concerns in Educating the Young Child
Legal, social, and economic issues that affect educational processes for the young child.

5326 A Process Approach to Teaching Writing
A process approach to teaching writing K-12 explored in a workshop environment.

5327 Research and Advanced Methods of Teaching Writing
Recent practices and research in teaching writing K-12. Students will engage in some aspect of classroom research in writing.

5328 Language and Learning across the Curriculum
Emphasis on teaching writing across the curriculum.

5329 Secondary English Curriculum
Content of secondary English, instructional methods, and teaching materials for grades 7-12. Contemporary concerns relevant to the curriculum development of the English language arts in the components of language, composition and literature. Includes a review of recent research in the teaching of English.

5330 Contemporary Models of Character Education
Current practices in character education (K-12) with an emphasis on schoolwide models and the materials and resources available to support character education initiatives. The arguments of both advocates and critics of character education will be considered.

5331 Assessment Issues in Mathematics Education
Students will explore current issues related to assessment, multiple dimensions of assessment, and the process of assessment for mathematics education.

5332 Mathematics in the Elementary Grades
Introduction to a constructivist approach for teaching mathematics in grades K-5, emphasizing NCTM Principles and Standards. Includes a field-experience working with elementary and/or middle school students.

5333 Mathematical Immersion to Advance Understanding
This course is designed to engage students in mathematical problem solving and problem posing and examining related research while immersing them in mathematics. The emergence of advanced mathematical understandings will aid students in the development of strategies that promote mathematical learning, particularly related to their professional educational work.

5334 Numerical Understanding: Rational Numbers
Designed to allow graduate students to explore and analyze research, experiences, case studies, and theory related to the teaching and learning of numerical thinking across grade levels. In particular, students will focus on rational numbers. Students will be able to investigate curriculum standards for K-12, instructional strategies in teaching rational numbers, and recent research on conceptual approaches.

5335 Research in Algebraic Thinking
Research in Algebraic Thinking is designed to allow graduate students to explore and analyze research, experiences, case studies, and theory related to the teaching and learning of algebraic

thinking across grade levels. Students will investigate algebraic curriculum standards for K-12, instructional strategies in teaching algebra, and recent research on conceptual approaches.

5340 Advanced Elementary Curriculum Development

Analysis of the unique needs of the elementary aged child with special emphasis on EC-6 content standards, lesson and unit planning in the elementary classroom, and elementary curriculum programs.

5341 Curriculum Theory and Practice

Students read and discuss the most influential works in the history of curriculum development and deliberation from the past 100 years. Students also are introduced to the main philosophical traditions within curriculum theory and practice.

5342 Data and Instructional Design

An in-depth analysis of standardized assessments given at national, state, district, campus, and individual student levels. Participants make extensive use of technological tools to analyze instructional data sets. Data will be related to curricular analysis and instructional design at appropriate levels.

5347 Advanced Curriculum Studies

An in-depth analysis of curriculum philosophies, including perennialism, idealism, realism, experimentalism, and existentialism. Emphasis on curriculum planning using the philosophies and learning theory to meet needs of contemporary students.

5348 Issues in Curriculum Development

Designed essentially for administrators, supervisors, and curriculum coordinators, this course investigates and analyzes current issues in curriculum theory and development with particular attention to curriculum revision and reform.

5349 Comparative Education

Comparative study of social, political, cultural and factors which influence international education. Emphasis on reform movements, curriculum and pedagogical characteristics of schools throughout the world.

5350 Teaching for Understanding

Exploration and analysis of research, experiences, technology, and theory related to the teaching and learning of major concepts across grade levels. Students will investigate curriculum standards for K-12, National and International test results and implications, and recent research on conceptual approaches. Opportunities for exploring grade-level and content interests will be provided.

5358 Seminar: Organizing and Administering School Reading Programs and Reading Clinics (Cross-listed as EDL 5358)

See EDL 5358 for course information.

5360 Advanced Elementary Science Curriculum

An in-depth analysis of the fundamental issues related to science curricula, primarily at the K-6 levels, including the role of curricula in historical and current reform efforts in science education.

5363 Observation and Participation in Middle and Secondary Schools

Provides the teacher candidate with foundational knowledge in inquiry-based, project-based, and problem-based learning, as well as providing opportunities to interact with middle and high school students during informal education experiences. The experiences will provide the teacher candidate with opportunities both to observe students and to participate as counselors/instructors.

5370 Technology Fundamentals

Explores primary concepts and operation skills related to three areas of technology: data/

computer technology, communication technology, and video technology. Emphasis is placed on mastery of basic principles and hardware configuration and operation. Extensive lab experiences are required.

5372 The Instructor and Technology
Pre-requisite(s): EDC 5370 or consent of instructor.

Focuses on the participant's future role as an instructor and the participant's personal and professional use of various technologies (data/computer, communication, and video) to gather information, to conduct research, to communicate with learners and colleagues, and to prepare material for publication and/or presentation.

5374 Curriculum and Technology
Pre-requisite(s): EDC 5370 or consent of instructor.

Prepares future instructional personnel to integrate technology (data/computer, communication, and video) into curricular applications. Emphasizes the application of technology in student learning activities.

5375 Courseware Development
Pre-requisite(s): EDC 5370 and 5374; or approval of instructor.

Examines technology-driven instructional systems. After reviewing existing systems, participants will design and develop technology-based course materials. An emphasis will be placed on the use of authoring languages and/or applications to present course material and to track student interaction.

5376 Multimedia Development
Pre-requisite(s): EDC 5370 and EDC 5374; or approval of instructor.

Examines the instructional design and production of multimedia curricular materials. Principles of human and machine interaction, hardware and software configurations, and production practices will be studied as participants create multimedia curriculum in a designated subject area.

5377 Practicum in Technology
Pre-requisite(s): EDC 5370 and 5372; or consent of instructor.

Placement in a "technology-rich" environment will expose the participant to addressing the technology needs of end users.

5385 Religion and Education in America: Exploring the Tensions and Possibilities

A critical examination of the historical and contemporary relationship between religion and public education. Particular attention will be paid to the history of religion and education, contemporary church-state law and education, and how religion can and should be addressed in the curricula in constitutionally appropriate ways.

5390 Seminar: Education

Designed to meet the individual needs of graduate students. May be repeated.

5391 Social Foundations of Education

This course will provide students the opportunity to encounter several highly influential books, ideas, and individuals from the fields of Social Foundations of Education and Curriculum. As an interdisciplinary, Foundations course, the instructor will assist students as they consider the field of education from a broad liberal arts perspective.

5392 Issues in Diversity

An analysis of issues related to diversity in learning settings and the exploration of culture in educational contexts.

5663 Montessori Preprimary and Elementary Curriculum Design and Teaching Strategy
Pre-requisite(s): EDC 5660.

Introduction to the Montessori preprimary and elementary method of education, emphasizing

the continuum of development in the young child (birth to age 9). Curriculum areas and classroom management skills as well as philosophical principles. Preparation for assisting in Montessori preprimary classrooms. Fee: $600

5691 Teaching Associate Middle Grades

Practicum in a local middle school where teacher candidates teach small groups and large groups of general education students within their content area as associated with the middle level teaching certificate.

5699 Graduate Teaching Internship

Pre-requisite(s): Acceptance into the Master's with initial certification program.

Designed for student participating in the Master's degree with initial teaching certification. A supervised teaching experience in an area public school.

5V95 Special Problems in Education 1 to 4 sem. hrs.

Designed to meet the individual needs of graduate students. May be repeated.

5V99 Thesis 1 to 6 sem. hrs.

Credit received when the thesis is finally approved.

6101 Professional Seminar

Introduction to responsibilities of university faculty, including applying for university tenure-track positions, preparing presentation proposals, writing for publication, and teaching university students, as well as discussion of resources to support research and writing.

6310 Seminar in Curriculum and Instruction

Elementary and secondary education examined particularly with regard to curriculum and curriculum issues, trends, and development. May be taken twice for a total of 6 semester hours.

6311 Fundamentals of Curriculum

Exploration, analysis, and evaluation of various trends in curriculum and their impact on classrooms, as well as their causes and contexts and major scholars who advocate these ideas.

6330 The History of American Education

Seminar focusing on the philosophical history of American education with emphasis on primary source documents. Includes a discussion of the social, cultural, and historical contexts for development of this distinct intellectual tradition.

6331 Sociopolitical Contexts of Schooling

Provides doctoral students with increased understanding of historical and contemporary landmark policies that have influenced the landscape of schooling and education for students. Using a policy analysis framework, students analyze and offer critiques on reform-based educational initiatives.

6336 Qualitative Research and Data Analysis (Cross-listed as EDP 6336)

See EDP 6336 for course information.

6338 Grant Writing (Cross-listed as EDP 6338)

See EDP 6338 for course information.

6339 Ethnographic Research Methods in Education (Cross-listed as EDP 6339)

Pre-requisite(s): EDP 5334 and EDP 5335 or equivalent; or consent of instructor.

A study of ethnographic research methods, data collection and procedures for data analysis.

6340 Research in Mathematics Education

Pre-requisite(s): EDP 5335.

Research in mathematics education with emphasis on understanding current research, applied

methodologies, and implications for teaching and learning mathematics. Includes practical skills in data collection and analysis with individualized and critical assistance given in application of technological tools, research types (qualitative and quantitative), and analysis techniques.

6341 Advanced Studies of Issues in Mathematics Education

In-depth investigation of critical issues in the nature of knowledge and inquiry in school mathematics.

6342 Cognitive Processes in Mathematics Education

Various theoretical approaches used to understand the teaching and learning of mathematics are examined. Experiences in this course will allow for insight into the existing evidence accumulated on issues related to how people think about mathematics and how an understanding of mathematics develops.

6345 Christian Faith and Education

This course examines the historical and contemporary relationship between the Christian tradition and education. It specifically addresses historical and contemporary proposals that consider how Christianity influences teaching, research, and service within educational institutions.

6352 Trends in Educational Thought (Cross-listed as EDA 6352)

See EDA 6352 for course information.

6355 Concepts of Teaching

Focuses on the profession of teaching: its definitions, history, and role in society; diverse means of studying teaching and conceiving of teaching; pedagogical reflection; and trends and issues in American teacher education.

6358 Design Research

This course introduces students to different design-based research methods in educational research and provides students with an intensive experience in carrying out their own design-based research studies.

6359 Mixed Methods Research Design and Analysis (Cross-listed with EDP 6359)

Pre-requisite(s): EDP/EDC 6336 and EDP 5334.

This course focuses on applied mixed method designs that address the unique settings and systems of education, including data collection strategies for field work.

6360 Instructional Design

Examination of issues related to instructional design in K-12, post-secondary, and corporate environments. Effective instructional design includes an assessment of specific needs, an understanding of the learner, and the implementation and assessment of effective learning experiences for content and skill mastery

6361 Leadership and Organizational Change

Through the examination and application of theories, including but not limited to leadership, decision-making, communication, motivation, power and influence, group dynamics, and change, this course develops diagnostic and problem-solving skills necessary for successful leadership of various organizational structures.

6370 Case Study Research Methods and Analysis in Education (Cross-listed as EDP 6370)

Pre-requisite(s): EDP 5334 and 5335 or equivalent; or consent of instructor.

Case study research methods, data collection and procedures for analysis.

6372 Teaching and Learning in Online Environments

Survey of the technologies, methods, strategies, assessments, and research-related synchronous, asynchronous, and hybrid environments for teaching and learning. Learning experiences will be customized to meet the participant's target instructional environment.

6374 Technology as a Curricular Approach

Survey of technology frameworks designed to facilitate the integration of technology and instruction. Research related to effective implementation and documented outcomes will be reviewed. Learning experiences will be customized to meet the participant's desired target environment (K-12, higher education, informal settings, etc.).

6390 Seminar: Education

Designed to meet individual needs of doctoral students. May be taken twice for a maximum of 6 semester hours.

6V99 Dissertation **1 to 6 sem. hrs.**

Research, data analysis, writing, and oral/written defense of an approved doctoral dissertation. At least six hours of EDC 6V99 are required for the Ed.D. degree in curriculum and instruction. At least nine hours of EDC 6V99 are required for the Ph.D. degree in curriculum and teaching.

DOCTOR OF PHYSICAL THERAPY (DPT)

6100 Professional Competencies I

Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Introduces students to professional roles and responsibilities of the physical therapist in healthcare. Integrates emotional/social intelligence, concepts of flourishing, learning theories, learning styles, characteristics of learners through the lifespan, and literacy and communication issues for patients. Prepares students for the professional curriculum and clinical practice as life-long learners.

6200 Evidence-Based Practice I

Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Introduces general research and evidence-based principles by exploring research methodologies used in health care research. Examines the formulation of clinical questions, searches appropriate literature sources, and critically appraises the evidence. Addresses literature searches and evidence-based analysis of research with emphasis on clinical decision-making.

6210 Therapeutic Interventions II

Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Introduces the principles and application of selected physical agents for the management of patients with pain and tissue injury, while addressing impairments related to mobility, strength, and motor control. Integrates current evidence and clinical decision-making to emphasize appropriate selection, instruction, and progression of interventions.

6220 Bracing, Orthotics, & Prosthetics

Pre-requisite(s): Successful completion of Semester 1 coursework.

This course takes students through common orthotics and braces utilized in physical therapy practice. Functional and surgical anatomy of lower limb amputations and conditions requiring lower quarter orthotic and prosthetic intervention are presented. Lab activities emphasize gait analysis, movement analysis, residual limb management, orthotics, prosthetics, and amputee rehabilitation.

6230 Evidence-Based Practice II

Pre-requisite(s): Successful completion of Semester 1 DPT courses.

Expands elements of applied research design and statistics that foster students' becoming intelligent consumers of scientific literature. Items related to measurement, research design, statistical analysis, critical inquiry, and strength of evidence are presented. Provides framework for subsequent courses in which scientific foundations of physical therapy practice are presented.

6240 Mindful Patient Management
Pre-requisite(s): Successful completion of Semester 1 DPT courses.

Studies the professional roles physical therapists need for culturally competent interactions with patients, healthcare team members, and society. Applies the principles of "mindful practice," motivational interviewing, and empathetic caring into the patient care setting. Students use simulated patient scenarios to practice, self-assess, and self-reflect on interviewing skills.

6250 Integrative Pain Sciences
Pre-requisite(s): Successful completion of Semester 2 DPT courses.

Provides an overview of managing patients with chronic pain syndromes and associated psychosocial factors using emerging evidence and contemporary concepts of pain assessment, treatment, and outcomes. Current best practice techniques and research are integrated to provide discussion of the multi-dimensional and multi-disciplinary nature of chronic pain.

6260 Pharmacology
Pre-requisite(s): Successful completion of Semester 3 DPT courses.

Introduces pharmacologic principles, their use in common pathological processes, and their impact on patient management across the lifespan. The impact of medications on patient presentations, timing of rehabilitation sessions, and physical therapy outcomes is emphasized. Content includes cardiovascular, pulmonary, neurological, gastrointestinal, musculoskeletal, urogenital, rheumatological, and integumentary systems.

6270 Professional Competencies II
Pre-requisite(s): Successful completion of Semester 4 DPT courses.

Prepares student professionally and emotionally for clinical practice, as a lifelong learner and educator in the physical therapy profession. Explores major forms of health care delivery and how they interact with physical therapy services, including but not limited to medical ethics, health care regulations, and risk management strategies.

6280 Advanced Diagnostics
Pre-requisite(s): Successful completion of Semester 4 DPT courses.

Integrates concepts of advanced diagnostic testing and imaging of the major systems and body regions related to physical therapy practice. Specific content reviews diagnostic ultrasound, magnetic resonance imaging, computed tomography, nuclear medicine, radiographs, and the interpretation of medical diagnostic tests. Rationales and guidelines for examination selection are discussed.

6290 Primary Care Physical Therapy
Pre-requisite(s): Successful completion of Semester 4 DPT courses.

Explores the therapist's role as an interdependent practitioner working within a collaborative medical model. Presents the clinical tools and decision-making processes necessary to efficiently and effectively collect, evaluate, and communicate examination data while promoting differential diagnostic principles and clinical decision-making.

6295 Capstone Project
Pre-requisite(s): Successful completion of Semester 5 DPT courses.

Culminates the student's clinical and professional development through the integration of didactic knowledge, clinical experiences, and evidence-based principles. Students use clinical internship experiences to prepare patient case reports for professional presentation and discussion. Students also complete licensure preparation and exam simulation to validate comprehension of curricular content.

6300 Human Physiology
Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Studies medical physiologic principles necessary for physical activity and the associated effects of physical activity on health and wellness across the lifespan. Explores the physiology and pathophysiology of the cellular, integumentary, neuromuscular, cardiovascular, and pulmonary systems.

6310 Health Promotion and Fitness Management
Pre-requisite(s): Successful completion of Semester 1 DPT courses.

Introduces prevention, health, wellness, and fitness as they relate to injury prevention, nutritional influences, fitness testing, and exercise prescription in an apparently healthy population. Students develop injury prevention and/or exercise programs based on test results and adapt the execution to specific healthy populations using proper clinical procedures.

6320 Neuromuscular Practice I
Pre-requisite(s): Successful completion of Semester 2 DPT courses.

Studies the management of individuals with neurologic health conditions, with emphasis on stroke, based on neurophysiological and patho-kinesiological mechanisms that result in movement system impairments in body structure/function, activity limitations, and participation restrictions. Emphasizes the application and integration of motor control/learning, theoretical constructs, evidence-based practice, and the patient/client management model.

6331 Therapeutic Interventions I

This course introduces foundational biomechanical and physiological principles related to therapeutic interventions. Principles and application of therapeutic exercise, manual therapy, and healing response for the management of patients with pain and mobility impairments are presented. The course emphasizes current evidence and clinical decision-making to facilitate appropriate selection, instruction, and progression of interventions.

6340 Neuromuscular Practice II
Pre-requisite(s): Successful completion of Semester 2 DPT courses.

Continues the study of the management of individuals with neurological health conditions, with emphasis on spinal cord injury, brain injury, vestibular disorders, multiple sclerosis, Parkinson's disease, neuromuscular disorders, and central nervous system cancers. Emphasizes the application and integration of the movement system, motor control/learning, theoretical constructs, evidence-based practice, and the patient/client management model.

6350 Management of the Pediatric Patient
Pre-requisite(s): Successful completion of Semester 3 DPT courses.

Presents fundamental concepts for the physical therapy management of children with musculoskeletal, neurological, and/or cardiopulmonary impairments. A framework of normal development and aging from birth to young adult serves as a course foundation. Topics include developmental delay and disability, family-centered care, advocacy, and assistive technologies.

6360 Advanced Therapeutic Interventions
Pre-requisite(s): Successful completion of Semester 4 DPT courses.

Develops advanced clinical reasoning and intervention skills for the management of patients with neuromusculoskeletal dysfunction. Students develop dry needling skills and refine previously introduced manual therapy and therapeutic exercise skills. Lab activities use case scenarios to challenge clinical reasoning for the development and progression of comprehensive treatment plans.

6370 Business Management and Entrepreneurship
Pre-requisite(s): Successful completion of Semester 5 DPT courses.

Provides an overview of practice management fundamentals and applies principles to various aspects of leadership and personal development, strategic planning, and business operations. Students gain knowledge in health care management, leadership, strategic planning, human resources, finance, organizational structures, and fiscal management as they relate to physical therapy practice.

6380 Management of the Aging Adult

Introduces the physiologic changes of aging and sociologic and economic consequences of an aging population. Reviews natural aging processes and how complicating factors such as vascular compromise, fall risk, and comorbidities negatively impact the aging adult. Lab activities focus patient management skills on the aging adult patient.

6390 Movement Sciences
Pre-requisite(s): Admission to the Doctor of Physical Therapy Program.

Studies the foundations and clinical relevance of motor control, motor learning, normal and abnormal gait, and movement analysis constructs. Emphasis is on the integration of theory, structured movement analyses of activities performed in daily life, and the International Classification of Functioning, Disability and Health (ICF) model to inform clinical decision making in physical therapist practice.

6400 Physical Therapy Fundamentals
Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Introduces fundamental physical therapy skills for various clinical settings and a patient management framework used throughout the curriculum. Lab activities focus on psychomotor skills including goniometry, range of motion, muscle testing, and anthropometric measures. Presents techniques for documentation, medical interviews, examination tests and measures, and measuring patient outcomes.

6410 Human Anatomy I
Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Introduces foundational knowledge of gross anatomy and neuroanatomy. Explores clinical application of embryology, histology, and function anatomy related to human movement across the lifespan. Laboratory experiences include three-dimensional anatomy software, living/surface anatomy, and synthetic human anatomical models. Anatomical regions covered include lumbar spine, pelvis, and lower extremities.

6430 Human Anatomy II
Pre-requisite(s): Admission to Doctor of Physical Therapy program.

Expands foundational knowledge of gross anatomy and neuroanatomy. Explores clinical application of embryology, histology, and function anatomy related to human movement across the lifespan. Laboratory experiences include three-dimensional anatomy software, living/surface anatomy, and synthetic human anatomical models. Anatomical regions covered include cervical/thoracic spines, thorax, and upper extremities.

6440 Musculoskeletal Practice II
Pre-requisite(s): Successful completion of Semester 1 DPT courses.

Explores the clinical application of biomechanics, functional movement, and examination principles for musculoskeletal dysfunction of the lower extremities. Concentrates on the application of psychomotor skills related to regional palpation, examination, and evidence-based interventions emphasizing patient education, manual therapy, and therapeutic exercise in a patient-centered approach across the lifespan.

6450 Clinical Neuroscience
Pre-requisite(s): Successful completion of Semester 1 DPT courses.

Explores the neuroscience of the movement system, with emphasis on the neuroanatomical structures and neurophysiological functions of the motor and sensory systems that regulate movement. Lab activities emphasize elements of the neurologic examination and an introduction to common outcome measures and assessment tools.

6460 Musculoskeletal Practice IV
Pre-requisite(s): Successful completion of Semester 2 DPT courses.

Explores the clinical application of biomechanics, functional movement, and examination principles for musculoskeletal dysfunction of the lower extremities. Concentrates on the application of psychomotor skills related to regional palpation, examination, and evidence-based interventions emphasizing patient education, manual therapy, and therapeutic exercise in a patient-centered approach across the lifespan.

6470 Cardiopulmonary Practice
Pre-requisite(s): Successful completion of Semester 2 DPT courses.

Explores the management of patients with cardiovascular, metabolic, and pulmonary causes of movement dysfunction across a variety of clinical settings using the disablement framework. Lab activities include, but are not limited to, ECG analysis, exercise testing, heart and lung auscultation, lung function testing, and chest examinations.

6480 Management of Complex Patients
Pre-requisite(s): Successful completion of Semester 3 DPT courses.

Introduces patient management strategies for the medically complex patient. Community-based strategies and outpatient management for patients with primary disease or comorbidities of the cardiovascular, pulmonary, metabolic, oncologic, lymphatic, and integumentary systems is emphasized. Students will design individual and community-based interventions for effective disease management.

6500 Musculoskeletal Practice I
Pre-requisite(s): Successful completion of Semester 1 DPT courses.

Initiates the clinical application of biomechanics, functional movement, and examination principles for musculoskeletal dysfunction of the lumbar spine, pelvis, and hip regions. Concentrates on the application of psychomotor skills related to regional palpation, examination, and evidence-based interventions emphasizing patient education, manual therapy, and therapeutic exercise.

6510 Musculoskeletal Practice III
Pre-requisite(s): Successful completion of Semester 2 DPT courses.

Explores the clinical application of biomechanics, functional movement, and examination principles for musculoskeletal dysfunction of the cervicothoracic region. Concentrates on the application of psychomotor skills related to regional palpation, examination, and evidence-based interventions emphasizing patient education, manual therapy, and therapeutic exercise in a patient-centered approach across the lifespan.

6530 Management of Complex Patients

Introduces patient management strategies for the medically complex patient. Community-based strategies and outpatient management for patients with primary disease or comorbidities of the cardiovascular, pulmonary, metabolic, oncologic, lymphatic, and integumentary systems is emphasized. Students will design individual and community-based interventions for effective disease management.

6810 Physical Therapy Practice I
Pre-requisite(s): Successful completion of Semester 3 DPT courses.

Develops student examination, evaluation, and intervention skills during an eight-week mentored clinical experience. Utilizes interpersonal communication, professional socialization, and critical thinking skills with patients/clients, family, and healthcare staff. Students are expected to demonstrate advanced beginner or intermediate performance levels on the Physical Therapist Clinical Performance Instrument (PT CPI).

6820 Physical Therapy Practice II
Pre-requisite(s): Successful completion of Semester 4 DPT courses.

Develops student examination, evaluation, and intervention skills during an eight-week mentored clinical internship. Utilizes interpersonal communication with patients/clients, family, and healthcare staff. Emphasizes evidence-based patient management and clinical reasoning skills as an adult learner and medical professional. PT CPI performance expectations are at intermediate and advanced intermediate levels.

6V10 Physical Therapy Practice III
Pre-requisite(s): Successful completion of Semester 5 DPT courses.

Progresses student to entry-level patient management skills during a fifteen-week mentored clinical internship. Students refine interpersonal communication and professional socialization

skills with patients/clients, family, and healthcare staff. Develops advanced evidence-based patient management and clinical reasoning skills. PT CPI performance expectations are at entry-level by the conclusion of internship.

ECOLOGY, EARTH, ENVIRONMENTAL SCIENCE (EEES)

6100 Seminar in Ecology, Earth, and Environmental Sciences
Pre-requisite(s): Doctoral student standing only.
Current topics and readings in earth system science. Variable topics depending on semester and instructor.

6V99 Dissertation in Ecology, Earth, and Environmental Sciences 1 to 3 sem. hrs.
Pre-requisite(s): Doctoral student standing only.
Required of all doctoral candidates. A minimum of 12 hours is expected.

ECONOMICS (ECO)

4312 Business Cycles and Forecasting
Pre-requisite(s): A minimum grade of C in ECO 1380 or a minimum grade of C in ECO 2306 and 2307; BBA students must be admitted to the Business School in order to take this course.
Examines basic causes of fluctuation in business activity. Topics include an examination of exogenous and endogenous influences on Gross National Product and other measures of economic activity, and the relationship between cycles in Gross National Product and cycles in particular industries and companies. The course emphasizes methods and techniques currently in use by business forecasters. Fee: $50

4321 Energy Economics (Cross-listed as AVS 4321 and ENV 4321)
See ENV 4321 for course information.

4323 The Environment and Economic Analysis (Cross-listed as AVS 4323 and ENV 4323)
See ENV 4323 for course information.

4345 Mathematical Analysis in Economics
Pre-requisite: A minimum grade of C in ECO 3306.
Designed to acquaint the student with rudimentary mathematical techniques and their application to economic analysis.

5001 Research Seminar
Pre-requisite(s): Graduate standing.
Presentation and discussion of current research in economics. Course will be graded pass/fail.

5002 Research Seminar
Pre-requisite(s): Graduate standing.
Presentation and discussion of current research in economics. Course will be graded pass/fail.

5110 Key Global Economic and Strategic Issues
Pre-requisite(s): Admission to Executive MBA program.
This course will enable the participant to see how economic analysis is applied to key global issues that affect management decisions at home and abroad. Questions related to globalization and interdependence among nations will be addressed.

5115 Pricing and Economic Analysis
Pre-requisite(s): Admission to MBA program.
Use of economic analysis by managers to help firms acquire and sustain competitive advantage.

5116 Economics of Strategic Interaction
Pre-requisite(s): ECO 5115.
Use of economic analysis to aid managers in obtaining favorable outcomes in situations involving strategic interaction between and within firms.

5117 Managerial Macroeconomics
Pre-requisite(s): ECO 5116.
Use of macroeconomic analysis by managers in tactical and strategic planning with reference to long-term macroeconomic trends and short-term business cycle fluctuations; sources of disaggregated data; forecasting.

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5305 Business Foundations - Economics
This course is required for MBA and MSIS students who do not have an undergraduate degree in business from an AACSB-accredited institution. It provides students with a foundation in economics which is expected of all business graduate students and helps them to understand the market environment in which businesses operate.

5310 Macroeconomic Analysis in the Global Economy
Pre-requisite: A minimum grade of C in ECO 5315.
This course analyzes national and global economic issues from a macroeconomic perspective. Topics include economic aggregates, interest rates, the balance of payments and exchange rates, aggregate production, economic growth, unemployment, consumption, investment, macroeconomic dynamics, monetary policy, and fiscal policy.

5314 Seminar in Behavioral and Experimental Economics
Application of the scientific method to economics using laboratory experimentation to test economic theories about individual and group behavior. Exploration of behavioral concepts to expand economic modeling beyond pure rational choice models.

5315 Microeconomic Theory and Business Decisions
Pre-requisite(s): Six semester hours of economics.
A seminar designed to cover aspects of micro theory that are relevant for decision making within the firm. Emphasis is placed on the decision-making process. Numerous problems, cases, and examples are used to illustrate the theory.

5317 Contemporary Government and Business Relations
Pre-requisite(s): Six semester hours of economics.
An examination of the many ways in which government and business interact. Topics covered include the historical development of government regulations of business; the current state of antitrust enforcement; issues involving multinational corporations; the basis for regulated markets and forces favoring deregulation; the impact of consumer protection policies and affirmative action policies on business; and the outlook for government and business relations in the future.

5318 Game Theory
Pre-requisite(s): Admission to graduate program in Economics or consent of instructor.
This course provides a technical treatment of the theory of games and strategic behavior with an emphasis on applications in economics and business. This framework helps us to understand the

nature of competition and cooperation. We also study contractual arrangements that affect incentives under different information constraints.

5320 The Economics of Government
Pre-requisite(s): Six semester hours of economics.

Economic rationale and effect of various taxes, user pricing, and the role of government in the allocation of resources, stabilization of the economy, and redistribution of wealth.

5321 Energy Economics (Cross-listed as ENV 5321)
Pre-requisite(s): Six semester hours of economics.

Origins of the energy crisis, the effect of oil prices on inflation and the international monetary system, the origins and nature of OPEC, the economic feasibility of alternative energy sources, U.S. energy policy alternatives, and other current issues in the field of Energy Economics. A portion of the course is devoted to examining the energy industry in Texas and the Southwest.

5325 Seminar in Regional Economics
Pre-requisite(s): Nine hours of economics or consent of instructor.

Adaptation of economic theory for use in regional economic analysis. Selected problems: urban renewal, transportation, plant location, individual location decisions, land use, regional economic growth, and structure.

5327 E-Commerce Economics
Pre-requisite(s): Six hours of economics or consent of instructor.

This course applies tools of economic analysis to evaluate the evolving role of electronic commerce in the United States and world economies. The course addresses theories of firm conduct and performance in the electronic marketplace; the role of information and e-commerce intermediaries; the economics of Internet advertising; intellectual property rights of digital products; national and international public-policy issues of e-commerce; the financial and monetary implications of electronic trading; and the broader implications of e-commerce for U.S. and world economic activity.

5330 Problem Areas in International Economics
Pre-requisite(s): ECO 3305 and FIN 3310; or BUS 5902; or consent of instructor.

World economy with particular emphasis upon emerging problems relating to the international monetary system, the trend toward economic regionalism, the growth of the less developed countries, and economic relations between private enterprise economies and state trading enterprises. Basic theories of international economics are developed as a framework for analysis of policy issues.

5333 Foreign Exchange Markets and International Monetary Institutions (Cross-listed as FIN 5333)

Foreign exchange markets, emphasizing theoretical and empirical issues and their relation to the business environments. Topics include exchange rate regimes, efficiency, forecast measurement and management of foreign exchange risk forward and futures markets, options, swaps, and multi-currency bonds.

5334 Economic Development
Pre-requisite(s): Six semester hours of economics.

Major issues involved in the process of development such as mass poverty, population growth, agricultural transformation, and trade.

5338 Seminar in World Economic Systems
Pre-requisite(s): ECO 2305, 2306, 3305, or equivalent course work.

Economic institutions in a number of capitalist and socialist nations, and their relative success or failure presented in the context of country studies. Topics include the problems involved in making international statistical comparisons, the importance of the rise in the U.S. service sector, the operation of private and nationalized industries in Western Europe, lifetime employment in Japan, central planning in the Soviet Union, socialist economic reforms, international trade among and between Western and Eastern nations, and the convergence hypothesis.

5343 History of Economic Thought
Pre-requisite(s): Nine semester hours of economics or consent of instructor.

Historical and analytical study of economic thought, beginning with Mercantilism and including the following schools of thought: Physiocratic, Classical, Marxian, Austrian, Neoclassical, Institutional, Keynesian, and Post-Keynesian.

5347 Econometric Theory and Methods
Pre-requisite(s): Graduate standing.

Empirical estimation of economic relationships; behavioral (consumers), technical (firms), and institutional. It teaches proper use of linear estimation techniques along with problem identification and solution. Fee: $50

5349 Causal Inference and Research Design
Pre-requisite(s): Minimum grade of C in ECO 4347 or department approval.

Introduction to modern tools for determining the existence of causal relationships among variables. Emphasizes both the design of the research process and the use of advanced econometric techniques.

5350 Health Economics (Cross-listed as HPA 5350)
Pre-requisite(s): ECO 5115 or 5315; or consent of instructor.

Application of economic principles to health care issues; examining economic efficiency in a variety of circumstances including the production and distribution of health services, health insurance, governmental programs, health care personnel and hospitals. Analysis of public in health and medical care from an economic perspective.

5351 Data Science I
Pre-requisite(s): A minimum grade of B in ECO 4347 or the equivalent, or approval of the department.

Best practices in data collection, cleaning, manipulation, and data and code management. Methods and principles of data exploration and visualization. Unsupervised statistical learning techniques, supervised statistical learning techniques, and false discovery principles.

5352 Data Science II
Pre-requisite(s): A minimum grade of B in ECO 4347 and ECO 5351.

Assessing model accuracy, resampling methods, model selection, regularization, and dimension reduction. Machine learning techniques and their applications in economic research.

5360 Seminar in Corporate Finance (Cross-listed as FIN 5360)
See FIN 5360 for course information.

5362 Seminar in Corporate Short-term Financial Management (Cross-listed as FIN 5362)
See FIN 5362 for course information.

5365 Investment Management (Cross-listed as FIN 5365)
See FIN 5365 for course information.

5368 Seminar in Financial Markets (Cross-listed as FIN 5368)
See FIN 5368 for course information.

5370 Management of Financial Institutions (Cross-listed as FIN 5370)
See FIN 5370 for course information.

5415 Economics for Managers

This course helps students understand and apply a wide range of economics-related theories, concepts, and facts to managerial decision-making. Four areas of economics are considered: (i) managerial economics, with a focus on how to determine what prices a firm should charge for its products; (ii) game theory, with a focus on how issues of strategic interaction arise in business settings and what kinds of decisions in various circumstances are likely to lead to the most favorable

outcomes; (iii) macroeconomics, with a focus on applying theories and information about the national economic environment in which firms operate to enhance managerial effectiveness; and (iv) international economics.

5V98 Special Studies in Economics **1 to 6 sem. hrs.**
Pre-requisite(s): Nine semester hours of economics and consent of instructor.
This course may be taken for one to six semester hours of credit.

5V99 Thesis **1 to 6 sem. hrs.**

EDUCATION (EDU)

5350 Teaching Associate: Special Education with Gifted Education
In this course, teacher candidates teach small groups of special education, gifted and talented, and twice exceptional students within specific disciplinary areas that match their certificate areas.

5354 Curriculum Differentiation
Historical, philosophical, and theoretical background of curriculum differentiation and specific strategies to adapt instruction for individual student differences related to rate, content, and preferences. Emphasis on best practices in differentiated instruction as demonstrated by empirical research.

5377 Applied Behavior Analysis
A course focusing on the use of applied behavior analysis in classroom settings. Emphasized topics include measuring behavior, functional assessment procedures, individualized behavior interventions, and classroom management.

5650 Teaching Associate: EC-6 Education with Gifted Education
In this course, teacher candidates teach small groups of general education and gifted and talented students within the specific disciplinary areas that match their certificate areas.

5651 Internship: EC-6 Education with Gifted Education
Full-time teaching experience in an elementary classroom with specific emphasis on general education student including gifted and talented students. A mentor teacher and resident faculty will support teacher candidates as they gradually assume complete responsibilities for teaching.

EDUCATIONAL ADMINISTRATION (EDA)

5378 Capstone Course: Special Problems in Student Affairs Administration
This culminating course uses a problem-based, case study learning approach to apply the competencies gained in other educational administration courses. Students address new trends in college student personnel through attendance at a national conference as well as through a mentoring relationship with a student affairs professional.

EDUCATIONAL LEADERSHIP (EDL)

5100 Professional Seminar in Higher Education and Student Affairs
Orients new graduate students to the HESA program and the student affairs profession, including topics such as writing for the social sciences, APA formatting, critical reading, professional presentations, and apprenticeship success.

5118 Competency Assessment and Development

A process in which student performance is assessed in several skill areas including leadership, problem analysis, critical thinking, decision-making, sensitivity and communication. A professional development plan is developed for each student.

5127 Seminar: Personal and Professional Values and Ethics

A study of ethical issues and standards related to the practice of educational leadership with an emphasis on understanding personal values and beliefs that influence practice.

5128 Seminar: Interprofessional Practice

Seminar designed to promote the collaboration of educators and other human service professionals in solving complex problems of children and youth in today's schools.

5129 Folio Assessment and Professional Development

Culminating assessment of students' progress in attaining competence for mid-management certification as evidenced by professional folios. Student folios will be evaluated by faculty and practitioner panels.

5131 Practicum: Contextual Domains

A field-based application of knowledge and skills in the contextual domain of practice including: philosophical and cultural values; legal and regulatory applications; policy and political influences; and public and media relationships.

5191 Introductory Graduate Seminar

This one-hour seminar will provide an introduction to the field of student service in terms of philosophy, principles of good practice, standards of preparation and professional development. Special focus will be given to the relationship of graduate preparation to the development of a coherent practice.

5194 Leadership Theory

This one-hour seminar is designed to encourage new student affairs professionals to consider ways in which leadership contributions are made in the context of higher education.

5195 Seminar: The Art of Advising and Mentoring

Advising and mentoring of students in higher education settings will be examined. Understanding this importance and dynamic nature of mentoring relationships and advising students and student organizations is critical to the success of student affairs practitioners. Current literature on mentoring will be studied.

5196 Student Services in a Multicultural Society

In this course students will be exposed to theory and research pertaining to student cultures. Emphasis will also be given to exploring the manner in which student services professionals work with minority students in implementing multicultural programs on campus.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5273 Person-Environment Theories

This course offers an in-depth analysis of person-environment theories, including the history and current use of such theories in higher education and student affairs. How people learn, and the design of effective learning experiences and environments is also examined.

5300 Research Applications in Educational Leadership

Research methods, design, and application related to the practice of educational leadership.

5305 International and Comparative Education

Education in the United States compared with that of selected foreign countries. Designed to provide a world view for educational leaders. Foreign study/travel required. (Also available to master's-level students.)

5322 Principles and Practices of Supervision

Philosophical foundations, principles, and practices of effective supervision in public schools. Special attention is given to the supervisory methods used to improve instruction at all grade levels.

5323 Problems in Supervision

Treatment of functional relationships in a program of supervision in the public schools. Case studies will be analyzed as practice in making the transition from theory to application of supervisory practice. Emphasis is placed on group interaction and human dynamics as basic constituents of sound supervisory practice.

5324 Practicum in Supervision

Pre-requisite(s): EDL 5322 and 5323.

Practice in planning supervisory in-service programs, problem solving, and procedures for improving supervisory and contemporary supervisory leadership in the public schools. An analysis of current literature as aids in setting up supervisory programs for instructional improvements is also included.

5327 Educational Evaluation (Cross-listed as EDP 5327)

Evaluation of educational programs including instructional as well as guidance programs. The student will be expected to organize and conduct research activities and to interpret the results of the research to teachers, administrators, parents, and other interest groups. Special topics will include construction of assessment instruments, the use of the computer in pupil personnel services, and the development of local norms.

5329 Philosophical and Cultural Contexts of Education

A study of the philosophical, social, and cultural frameworks impacting schooling in America.

5330 Policy, Politics, and Public Relations in Education

Pre-requisite(s): EDL 5345.

An examination of the political and governance structures and public relations in American public education, including significant issues of policy and practice.

5336 Qualitative Research in Higher Education

The development of an in-depth understanding of the major methods of inquiry associated with qualitative research is emphasized. Additionally, an appreciation for the strengths and limitations of engaging in qualitative research and a general understanding of the paradigms that undergird qualitative research and their implications for conducting qualitative inquiry are cultivated.

5344 School Business Management and Finance

Financing public education as it is related to other governmental services; the various types of public school revenues; the centralized and decentralized support and control of education. Particular attention is given to such problems as sources of revenue, budgeting, school costs, and financial accounting and auditing.

5345 Fundamentals of School Administration

Various administrative theories and philosophical concepts as they apply to school administration. Basic factors and functions of administration are studied in relation to the various programs of administration as well as the problems and issues involved in the administration of these problems. Principles and fundamentals of all administrative programs and procedures are included.

5347 Administration of Pupil Personnel Services

Organization and implementation of the pupil services necessary to provide a sound instructional program. The various services are studied from the viewpoint of a total program of

services to make possible continuing progress by the pupil through his instructional program. The special services are considered in relation to the basic administrative service provisions.

5349 Administration of Staff Personnel Services

Studies, practices, and principles of administration with reference to recruitment, selection and promotion, and retention of school personnel. Modern employment and placement practices with reference to incentive pay systems, control of working conditions, job analysis and evaluation, salaries and salary scheduling, maintenance of morale, fringe benefits, and other employee services are studied and analyzed.

5353 The Principalship: Elementary and Secondary

Modern and practical problems of leadership and supervision faced by principals. Attention is given to such areas as organization of local schools, the teaching staff, pupil classification, provisions for exceptional children, and public relations. Studies of both problems and issues of the elementary and secondary schools.

5355 Transforming Learning Environments: School Facility Planning

Educational leadership students study the planning, funding, and design of student-centered learning spaces incorporating functional efficiencies and applicable State and Federal statutes. Students will focus on how space influences and shapes learning, how design must serve both current and future educational needs, how capital construction is planned and financed, and how to apply TEC: School Facilities Funding and Standards to school facility planning, design, construction and instructional needs.

5356 School Surveys and Field Studies

Place of the survey in present-day American education; its methods; findings concerning current problems in various types and phases of education; and tendencies in survey recommendations. Extensive reading of surveys required. Typical problems are assigned for investigation and report.

5357 Community Relations

Principles and practices of successful college and/or K-12 school community relations programs.

5358 Seminar: Organizing and Administering School Reading Programs and Reading Clinics (Cross-listed as EDC 5358)

Orientation for administrators concerning four aspects of reading instruction: (1) Administrator roles and responsibilities essential to effective reading instruction; (2) Strategies for improving instruction that emphasize measurement, the use of varied media, and staff development; (3) Innovative practices in reading instruction at the elementary and secondary school levels; (4) Knowledge of developments in educational research and suggestions concerning bridging the gap between innovation and practice; (5) Preparation of a comprehensive school/district reading program.

5359 Seminar: School Law

The legal basis for education. Emphasis is placed on the concept that constitutional and statutory provisions reflect the basic beliefs, attitudes, and ideals of the American people in relation to public education. Analysis is made of the federal and the state constitutions as to those provisions having explicit or implicit ramifications for public education. State board of education policies which have the effect of law are also reviewed. A survey is made of those court decisions which historically have most dramatically affected the course of educational history from the point of view of students, teachers, administrators, and boards of education.

5360 Seminar: Administration of Special Programs

Administration of compensatory and special education, career and vocational programs, basic skills program (reading), and middle management services. May be repeated.

5361 Seminar: Central Office Administration

Basic administrative concepts, processes, and organization of public school administration. The roles of the superintendent and other central office personnel are examined in relation to effective

administration. The relationship of the local school district to the Texas Education Agency, the federal government, and other educational institutions is examined. There will be intensive study in selected areas.

5362 Seminar: Administration of Career and Technical and Vocational Programs

Application of the principles of administration to vocational education programs. In addition to the study of organizational structures, planning, coordinating, allocation of resources, and decision-making, the course will cover special requirements of vocational education as program standards, state and local policies and regulations, state plans, building and equipment needs, and in-service training of vocational education personnel.

5363 Seminar: Administrative Theory and Educational Leadership

Theory and the relationship of leadership to administrative theory. Problems of development of administrative theory and problems occurring in the leadership role are the focus of the course.

5370 Psychosocial Development in College Students

This course will offer an in-depth analysis of psychosocial development theories, including models based on gender, race, ethnicity, sexual identity, and socioeconomic/sociocultural class. Erik Erikson's Identity over the Life Span and Arthur Chickering's Theory of Identity Development, along with Josselson, Phinney, Cross Helms, Cass, and others will be used.

5371 Cognitive-Structural Development in College Students

This course offers an in-depth analysis of cognitive-structural college student development theories, including William Perry's Intellectual Scheme; Mary Field Belenky, et al.'s Women's Ways of Knowing; Marcia Baxter Magolda's Epistemological Reflection Model; and Patricia King and Karen Kitchener's Reflective Judgment Model.

5372 Culture and Organization of Higher Education

This course provides an overview of the organizational structures and dynamics of higher education governance, leadership, planning, and resource allocation. Particular attention in this course is given to the diversity of post-secondary institutions in the United States, and how varying institutional settings influence organizational behavior, structures and cultural norms of operating. Students should anticipate a rich interaction with related literature. An introductory survey of organizational theories in higher education will also be explored.

5374 Moral and Faith Development in College Students

An in-depth survey of major theories related to moral and faith development of American college students. Current research on the effect of the college environment on moral and faith development will be explored. Special emphasis will be placed on the integration of theory into student affairs administrative practice.

5375 Sociology of Higher Education

This course explores the intersection of sociological issues and interests and the study of higher education. The course analyzes issues central to the study of higher education through sociological frameworks, including consideration of the structures and environments that form the context of higher education, and the impact of the institution of higher education on participants and non-participants.

5376 Human Resource Management and Development in Student Affairs

Human resource management and development in student affairs are examined. Special attention is given to staff selection, training, evaluation, productivity, decision making, job stress, and job satisfaction. Current literature on management and supervision is studied.

5378 Capstone Course: Special Problems in Student Services Leadership

This culminating course will use a problem-based, case study learning approach to apply the competencies gained in other Educational Leadership courses. Students address new trends in college student personnel through attendance at a national conference as well as through a mentoring relationship with a student services professional.

5379 Foundations & History of Higher Education Leadership

The history of higher education and student affairs is explored through an introduction to the various fields, organizations, and functions in student affairs, including trends, issues and ethics.

5380 Technology and Leadership

An overview of technology in the context of organizational leadership. Participants examine the application of data (computer), video, and communications technology to formal and informal leadership responsibilities within educational organizations. Assumes no previous knowledge of advanced technology. Technology lab and field experiences will be required.

5387 The College Dean

A functional approach to the problems of the dean, treating the phases of administration; instructional personnel; public relations; curriculum construction and organization; faculty selection, assignment, promotion, and retirement; extracurricular activities; student and parent relations.

5388 The College Registrar

A study of duties, functions, and responsibilities of the registrar.

5390 Seminar: Education

A course designed to meet the individual needs of graduate students. May be repeated.

5391 Cultural Issues in Higher Education (Cross-listed as EDP 5391)

See EDP 5391 for course information.

5392 Higher Education and the Law

Legal aspects and issues of constitutional, statutory, and case law concerning public and private two-year and four-year colleges, and universities; their boards, administrators, faculty and students. Interpretations, compliance issues, and implications for institutional practice and policy.

5393 Supervision of Student Teachers

A course designed to provide students with a study of the principles and procedures for effective supervision of student teachers. Special emphasis is given to the development of contemporary supervisory methods and skills.

5394 Planning, Budgeting, & Human Resources in Higher Education

Pre-requisite(s): EDL 5379 or consent of instructor.

This course explores the interdependent relationship of university strategy formation, strategic planning, finance, and human resources. First, attention is given to theory-based literature from both business and higher education as it relates to strategy formation and planning. Second, financial issues related to college and university administration are examined, including the nature of costs, their impact on students, and the future of higher education. Finally, the course explores the importance of human resources, its relationship to planning and finance, and how a student affairs administrator can enact processes related to management, staff selection, training, evaluation, and productivity.

5395 Student Services Administration: Practicum I

Broad on-site experiences in a variety of student services in three or more private and public institutions of higher education.

5396 Student Services Administration: Practicum II

In-depth on-site experiences in two different student services areas. Up to one-half of this practicum may be earned through professionally supervised graduate assistantships in appropriate work settings.

5399 Faith-Based Higher Education

The course explores the history of higher education in the United States, with special attention to the interplay of forces that have led virtually every major academic institution to abandon historic Christian convictions. It includes reading and thinking about the lessons of history and discusses how

to apply them to contemporary context. Topics include staff and faculty hiring and mentoring, student life programming, staff development, and crafting and implementing a Christian collegiate vision.

5V19 Interpersonal Skills Lab **1 to 3 sem. hrs.**

Practical application of theories and skills related to effective interpersonal behavior of school leaders. The foci are motivating, mentoring, and managing human interaction and communication.

5V21 Practicum: Functional Domains **1 to 3 sem. hrs.**

A field-based experience related to performance in the functional domains of leadership, problem-solving, decision-making, organizational management, technology, and research. May be repeated once with different topic not to exceed three credit hours.

5V25 Practicum: Programmatic Domains **1 to 3 sem. hrs.**

A field-based experience that focuses on the programs of elementary and secondary schools with special emphasis on curriculum and supervision of instruction. Advancing Educational Leadership (AEL) and Texas Teacher Evaluation and Support System (TTESS) certifications are covered. May be repeated once with different topic not to exceed three credit hours.

5V26 Practicum: Programmatic Domains **1 to 3 sem. hrs.**

A field-based experience which focuses on the programs of elementary and secondary schools with special emphasis on support services and the resource base.

5V64 Internship in School Administration **1 to 9 sem. hrs.**

(Required for both the principal and the superintendent.) Provides persons aspiring to become administrators with periods of practical clinical experience. Internships are conducted under the supervision of school, college, or other institutional administrators and professors.

5V65 Internship--Superintendent **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of department chairperson.

Individuals are assigned to school systems where opportunities will be affected to observe and participate in the superintendent's office, business office, board meetings, and other areas related to the duties and functions of the superintendent. Required for Superintendent's Certification.

5V95 Special Problems in Education **1 to 4 sem. hrs.**

Designed to meet individual needs of graduate students. May be repeated.

5V99 Thesis **1 to 6 sem. hrs.**

Credit received when the thesis is finally approved.

6118 Leadership Assessment and Professional Development

A systematic process in which performance is assessed in critical skill areas of educational leadership. Assessment and feedback result in a leadership development plan for each student which is monitored throughout the program and becomes a part of the portfolio process.

6129 Professional Portfolio Assessment

Pre-requisite(s): EDA 6118 or consent of department.

Culminating assessment of professional and personal growth and development of students completing the Ed.D. as evidenced by student professional portfolios. Portfolio documents are presented by students and evaluated by faculty and practitioner panels. Review of research and use of professional portfolios are also required.

6300 Research in Educational Leadership I

Pre-requisite(s): EDA/EDP 5327.

Topics related to the development of research projects in educational leadership and decision-making are presented, including the identification of problems to be investigated, the review of the literature, the development of research questions and/or hypotheses, and writing proposals. Skills in Historical, Correlational, and Descriptive Research are developed, including the supporting measurement theory and statistics.

6301 Research in Educational Leadership II
Pre-requisite(s): EDL 6300.

Concepts and skills in experimental research applied to educational leadership and decision-making, development, experimental design, sampling, measurement considerations, probability theory, inferential statistics, and reporting results. Statistical package is utilized as a part of the instructional procedures.

6302 Teaching and Learning in Higher Education
Pre-requisite(s): Doctoral Standing.

A doctoral seminar designed to introduce graduate students to teaching in higher education through the exploration of curricular issues, course development and content, teaching techniques, learning concepts and theories, and the nature of faculty work.

6303 Seminar: Curriculum Management and Evaluation
Pre-requisite(s): EDC 5321, 5344, 6310 or equivalent; or consent of instructor.

Development, management, and evaluation of K-12 curriculum with attention to research and best practice related to providing leadership for improving student performance. Administrative/ supervisory responsibilities for curriculum standards, policy development, and curriculum audit procedures are also emphasized.

6304 Seminar: Politics, Policy and Governance of Education
Pre-requisite(s): Doctoral student or consent of instructor.

The political and governance structures of American education with a particular emphasis on Texas. A study and analysis of local, state, and federal policies and policy issues with an emphasis on the critical dimensions of problem-solutions, power relations, and values and ethics.

6305 Ethics and Values in Educational Leadership

Ethics and values as applied to educational leadership and management, with related philosophical concepts and principles. Designed for advanced graduate students with classroom teaching experience and educational leadership experience.

6306 Student Success in Higher Education

This course examines the impact college has on students (college-impact models), as well as policies, programs, and practices that promote student learning and development in higher education. Theories concerning environmental or sociological origins of change in college students will be examined. Course topics include several sets of variables (including student, organizational, and environmental characteristics) presumed to influence student success (retention, engagement, achievement, and development).

6309 Framing K-12 Problems for Inquiry

Students develop a foundation for disciplined inquiry of a Problem of Practice, engage in educational research, and explore approaches to disciplined inquiry in school and organizational contexts.

6310 Organizational Behavior and Leadership

Students focus on learning about the complex behavioral world of public and private schools and school districts in the life of communities. Acquiring and applying skills necessary for understanding organizational behavior and leadership to engage effectively in executive roles.

6312 Systemic Inquiry through Data Analytics

Educational leadership students organize, manipulate, analyze, and interpret data specific to the Texas K-12 Public Education Information Management System (PEIMS) and the United States. Students communicate analytics findings relevant to an identified Problem of Practice through visualization of qualitative and quantitative data.

6335 Research Practicum in Education (Cross-listed as EDP 6335)

See EDP 6335 for course information.

6349 Advanced Studies in Human Resource Management in Education
Pre-requisite(s): EDA 5349 or equivalent; or consent of instructor.

Theories and models supporting human resource activities. Topics are subject to change, but generally include equal employment opportunity laws and case rulings, recruitment, selection methods, corrective discipline, total compensation systems, performance evaluation, and conflict resolution. Emphasis is on application of theory to practice.

6350 Seminar: School Leadership

Basic concepts of educational leadership for doctoral students and advanced studies for school executives.

6352 Trends in Educational Thought (Cross-listed as EDC 6352)

A general survey and evaluation of recent developments in the various fields of education in the present day.

6359 Advanced Studies in Education Law
Pre-requisite(s): EDL 5359 or equivalent; or consent of instructor.

Legal and regulatory applications as a context and constraint in educational leadership decision-making. Topics are subject to change, but generally include federal and state constitutional provisions; statutory standards and regulations; local rules, procedures, and directives; fundamentals of contract law; and the governance of educational institutions.

6360 Seminar: Interprofessional Education and Practice

An exploration of approaches to interprofessional care for children and families in school-based settings. The seminar involves a study of human service professionals and approaches to collaborative practice using case analyses and field activities.

6363 Advanced Studies in Educational Leadership

The role of leadership in shaping the quality and character of educational institutions. Topics are subject to change, but generally include identification of personal and organizational values, culture and culture building, formulation of personal and institutional goals, the change process, and vision building.

6370 Seminar in American Educational Thought (Cross-listed as AMS 5395)

Understanding the historical, philosophical, and sociological antecedents of current views on education and educational leadership is a vital link in the formulation of a philosophy of educational leadership. Historical and contemporary works in the general areas of educational history, educational philosophy, sociology of education, and educational leadership are studied.

6380 Technology in Educational Leadership

This course emphasizes taking a systematic approach to the use of data, communication, and video technology. A review of existing research creates a knowledge base upon which instructional and leadership decisions can be made. Students are encouraged to apply the knowledge and skills gained through class instruction to leadership and instructional duties that they perform. Students are introduced to a number of moral, ethical, and legal issues that require professional evaluation.

6383 Organization and Administration of the Community College

Doctoral student or consent of instructor. Internal and external relations, planning and development; faculty selection and development; budgeting and finance; basic administrative functions and leadership concepts of higher education and especially the community college.

6384 Curriculum and Instruction in the Community College
Pre-requisite(s): Doctoral student or consent of instructor.

Philosophy, objectives, curricular development, instruction, and administration in academic, technical, and continuing education programs in the community college.

6385 Higher Education--Business and Finance

Designed to provide the graduate student (or practitioner) with a practical knowledge of the business and financial aspects of higher education administration. Students will gain an understanding of key terminology that will be useful as they relate to financial administrators or seek advancement in the field. Students will learn to identify fiscal challenges facing colleges and will discuss effective means to face these challenges. Topics included are state and federal regulations, legislative issues, tax exempt financing, fund accounting and audits, budgets, legal issues, payroll and personnel, risk management, facilities construction, deferred maintenance, foundations and investments, grant management, and auxiliary enterprises and contracting.

6386 The Community College

Pre-requisite(s): Doctoral student or consent of instructor.

Higher education and the community college: its philosophy, history, present/future trends, administration, instructional programs, student services, finances, public relations, and students.

6390 Seminar: Education

Designed to meet individual needs of doctoral students. May be repeated.

6V20 Clinical Experiences for Educational Leaders

Students engage with a mentor in authentic field experiences that frame K-12 problems of inquiry and provide opportunities to address complex problems of practice. Fee: $115.

6V64 Internship in Educational Leadership 1 to 9 sem. hrs.

Pre-requisite(s): Consent of department chairperson.

A field-based experience designed to meet individual needs of doctoral students preparing for leadership roles in colleges, universities, and/or K-12 schools.

6V95 Special Problems in Educational Leadership 1 to 9 sem. hrs.

Pre-requisite(s): Doctoral student or consent of department chairperson.

Designed to meet the individual needs of doctoral students. May be repeated when topic varies.

6V99 Dissertation 1 to 9 sem. hrs.

Research, data analysis, writing, and oral/written defense of an approved doctoral dissertation. This course may be taken for up to 9 hours per semester for a maximum of 24 hours applicable to degree.

EDUCATIONAL PSYCHOLOGY (EDP)

4350 Introduction to the Gifted Child

Historical overview of the field, definitions, basic terminology, theories, models, and characteristics of the gifted and talented. A brief overview of identification procedures, program prototypes, teacher characteristics, and curriculum models is also provided.

5182 Specialist Internship in School Psychology

Pre-requisite(s): Admission to School Psychology program or consent of instructor.

A field-based experience for students in the School Psychology program earning an Education Specialist degree. Experience must meet the requirements specified in the School Psychology program handbook. May be repeated. Graded on credit-non-credit basis.

5183 Internship in School Psychology II

Pre-requisite(s): EDP 5182.

Continuation of EDP 5182. A field-based experience for students in the School Psychology program. Experience must meet the requirements specified in the School Psychology program handbook.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5310 Curriculum Development for the Gifted

Development of differentiated curricula for gifted students. Students will learn the components of a scope and sequence in gifted programs, how to adapt for individual differences, how to organize thematic, interdisciplinary content, and how to teach higher-level cognitive skills.

5311 Creativity and Strategies for Teaching the Gifted

Concept of creativity and its relationship to the development of programs for the gifted and talented. Topics within this course will include instruments and techniques for identifying creativity, theories and models of creativity, instructional strategies for enhancing creativity, futuristics, and problems of creatively gifted.

5320 Survey of Quantitative Methods

This course provides a basic introduction to quantitative methods needed by educational practitioners to inform professional decisions and guide evidence-based practice. Topics include scientific method, internal and external threats to research validity, research designs, measurement, and statistical conclusion validity. The centrality of quantitative methods to competent practice is emphasized.

5327 Educational Evaluation (Cross-listed as EDL 5327)

See EDL 5327 for course information.

5328 Psychological Assessment of Children and Adolescents I: Cognitive

Theories of intelligence, practical administration, and interpretation of intellectual measures, including giving, scoring, and interpreting test results. Fee: $70

5329 Counseling Theories and Techniques

Pre-requisite(s): Graduate standing.

Basic theories, strategies, and techniques in counseling and helping relationships. Special focus on the role of the interventionist.

5332 Human Growth and Development (Cross-listed as AMS 5332)

Processes and stages of human growth and development: physical, social, emotional, and intellectual. The impact of social, political, and economic factors on individuals and families is explored.

5333 Psychology of Learning, Cognition, and Affect (Cross-listed as AMS 5333)

Philosophical and historical roots of theories of learning, cognition, and affect. Major constructs of current theories and their application in instructional, administrative, and counseling settings.

5334 Statistical Methods

Pre-requisite(s): EDP 5335 or JOU 5310 or BIO 5201 or HED/HP/RLS 5379.

Exercises in the computation of the most commonly employed statistical indices in tabulation, graphic representation, and presentation of data in educational reports. The techniques used are also applicable to other fields.

5335 Research in Education (Cross-listed as AMS 5335)

Historical, descriptive, and experimental inquiry. Emphasis on interpretation of research. Use of references and resources; the problem; expression of hypotheses; research design; organizing the review of literature; gathering data; statistical analysis of data; reporting and discussing findings; drawing conclusions. Writing style will be applied to the student's major field of study.

5337 Psychological Assessment of Children and Adolescents II: Psychoeducational
Pre-requisite(s): EDP 5328 and 5393.

Continued knowledge and practice of intellectual assessment will be presented, as well as different types of academic assessment, including both norm-referenced and curriculum-based approaches. Integration of intellectual and academic assessment will be stressed within a problem-solving model. Fee: $70

5339 Group Counseling Methods
Pre-requisite(s): Consent of instructor.

Group counseling theories and techniques. Analysis of group processes. Practice in leading simulated groups.

5340 Measurement and Evaluation

Overview of psychometrics and its application to psychological and educational decision making. Specific attention given to the design and development of specialized assessment instruments. Fee: $70

5341 Professional Practice, Law, and Ethics for School Psychologists

An overview of the profession of school psychology is addressed, including the history and foundations of the field as well as service delivery models. Emphasis is placed on the application of current ethical, legal, and professional standards to professional practice in schools and alternative settings.

5344 Individual Brief/Crisis Counseling

Overview of current methods of brief therapy and simulated experiences using brief therapy. Identification of situations having the potential for crisis, description of clients in crisis, consideration of theories devoted to explanation and possible amelioration of crises. Practice in counseling clients using brief therapy or crises interventions. Visits to appropriate settings.

5346 Therapeutic Intervention
Pre-requisite(s): EDP 5356.

Provides an extended understanding of the philosophy and methodology of applied behavior analysis. Applied behavior analysis is an extremely well-developed approach to solving problems in educational settings and provides one of the best examples of a consistent model for being an accountable, scientifically-oriented practitioner. In this course, students learn to implement assessment and intervention techniques based on the science and theory of behavior analysis. Fee: $50

5351 Social/Emotional Needs of the Gifted

Differential affective characteristics of gifted students; general counseling theories; communicating with the gifted; assessing affective needs; helping the gifted develop social and interpersonal skills; the defining role of the school in affective development; and measuring the potential of the gifted to achieve and contribute to society and the lives of others.

5352 Counseling in Religious Settings
Pre-requisite(s): EDP 5329 or consent of instructor.

Integration of principles of religious faith with various counseling problems and psychotherapeutic systems. The course includes subject areas such as ethics, the identity of the counselor, and an evaluation of selected psychological theories for their usefulness in a religious setting and/or from a religious perspective.

5353 Spirituality and Religion in Counseling

This course is designed to help students increase their awareness and knowledge of diverse spiritual and religious traditions, the role of spirituality and religion to human development and mental health, and assessment and treatment approaches to counseling clients' spiritual and religious concerns.

5354 Ethics in Applied Behavior Analysis

The course provides information on the profession of behavior analysis, including the history, foundations, and ethical principles. The course emphasizes the ethical principles and professional expectations within the field of applied behavior analysis. This includes a detailed review of the Behavior Analysis Certification Board Professional and Ethical Compliance Code for Behavior Analysts.

5356 Psychological Interventions with Children and Adolescents I: Behavior

An overview of behavior management, including different beliefs as to why behavior occurs. The process of collecting data for the purpose of assessing individual and group behavior and making decisions about the education of children will be studied.

5357 Single-Subject Research Design

An initial course in the use of single-subject research methodology. Single-subject research designs are empirical designs rooted in the field of applied behavior analysis that are regularly used in the study of individuals with low incidence disabilities but are also appropriate for other populations. This class examines the characteristics of single-subject research designs. Fee: $50

5358 Teaching Individuals with Autism and Developmental Disabilities

Covers specific teaching techniques utilized among individuals with developmental disabilities. Data collection techniques used to monitor progress will be introduced, as well as preference assessment(s) and communication intervention(s). Fee: $50

5360 Psychological Interventions with Children and Adolescents II: Counseling

An overview of developmentally appropriate evidence-based approaches to counseling children and adolescents in school and mental health settings. Addresses foundational techniques, assessment of treatment progress, working with parents and teachers, and ethical/legal considerations.

5361 Challenging Behavior and Developmental Disabilities

Pre-requisite(s): EDP 5346 & 5356.

Provides a general understanding of severe challenging behaviors, such as self-injury and aggression, including various reasons that individuals with disabilities develop and maintain such behaviors, as well as assessment and treatment methods to address them.

5362 Psychological Interventions with Children and Adolescents III: Academic

An overview of evidence-based approaches to intervening with children and adolescents who have academic difficulties. Addresses foundational aspects of teaching and learning, assessment of intervention effectiveness, and ethical and legal considerations.

5366 Psychology of Exceptional Children

Problems of the exceptional child in a developmental framework. Differences in intellectual functioning, academic achievement, and social relationships will be explored. A social psychological perspective will also be presented, i.e., the degree to which society accepts the exceptional and what effect this has upon their development.

5367 Developmental Psychopathology

Overview of behavioral and emotional disorders of childhood, adolescence, and emerging adulthood from a developmental perspective. This course focuses on the description, assessment, epidemiology, etiology, and evidence-based treatment of each disorder.

5368 Methods for Teaching the Emotionally Disturbed

Pre-requisite(s): EDP 5366.

Techniques for the education of emotionally disturbed children and adolescents. Emphasis is placed on understanding classroom behavior, developing teacher-student relationships, and structuring classroom learning.

5369 Methods and Media for Children with Learning Disabilities
Pre-requisite(s): EDP 5366.
Individual diagnosis of learning disabilities. Experiences will be provided in preparing individual educational plans and materials, both from developmental and remedial approaches.

5370 Consultation, Collaboration, and Family-School Partnerships
Knowledge of and skills for consulting with parents and teachers; collaborating with teachers, school administrators, and other professionals; and building family-school partnerships. Techniques are provided for gathering information regarding the needs of exceptional children and for involving teachers, parents, and others in better meeting these needs.

5376 Practicum with Exceptional Children
All courses in the certification program. Field experiences with various types of exceptional children.

5390 Seminar: Education
Designed to meet individual needs of graduate students. May be repeated.

5391 Cultural Issues in Higher Education (Cross-listed as EDA 5391)
This course explores topics relevant to providing educational services to diverse student populations in higher education. Students will develop knowledge, attitudes, and skills needed to function within their own microculture, the United States macroculture, other microcultures, and the global community. Students will develop skills and understanding of effective strategies for academic assessment and intervention, and strategies to facilitate student success in higher education.

5393 Cultural Issues with Children and Families
An overview of the psychosocial and educational needs of ethnically and linguistically diverse children is discussed, including the impact of culture, cross-cultural assessment, and treatment models in a multi-systems approach.

5394 Psychological Assessment of Children and Adolescents III: Social Emotional
Pre-requisite(s): EDP 5337.
An overview of social-emotional, behavior, and personality assessment techniques. Primary focus is on administering, scoring, and interpreting data from instruments for children and adolescents. Fee: $70

5V54 Practicum with Gifted Students 3 to 6 sem. hrs.
Three to six semester hours of practicum experience or two years of successful classroom teaching experience in an approved program for gifted and talented students to meet the requirement for an endorsement in this area. Regular consultation with program faculty to develop teaching skills is arranged in conjunction with the setting, May be repeated for credit.

5V78 Practicum in School Psychology 1 to 3 sem. hrs.
Pre-requisite(s): Admission to School Psychology program or consent of instructor.
Supervised practicum in School Psychology. May be repeated. Graded on credit/no-credit basis.

5V95 Special Problems in Education 1 to 4 sem. hrs.
Designed to meet individual needs of graduate students. May be repeated. Fee: $50

5V98 Practicum in Applied Behavior Analysis 1 to 3 sem. hrs.
A supervised practicum in applied behavior analysis. Throughout the practicum experience, students receive regular consultation with program faculty and instructors to develop applied assessment and interventions skills within the field experience. This course may be repeated for credit. Fee: $100

5V99 Thesis **1 to 6 sem. hrs.**

Credit received when the thesis is finally approved.

6154 Introduction to Multidisciplinary Studies

Compares and contrasts the theories, models, and methods used in the creation of knowledge in a variety of disciplines. Specific approaches to the identification, design, and evaluation of creative products across disciplines will be examined.

6155 Reflection of Multidisciplinary Studies

Pre-requisite(s): EDP 6154.

Research resulting from the examination of contemporary issues, problems, and/or themes from a multidisciplinary perspective will be shared in a symposium.

6182 Doctoral Internship in School Psychology

Pre-requisite(s): Admission to school psychology program or consent of instructor.

A field-based experience for doctoral students in school psychology. Experience must meet the requirements specified in the school psychology internship handbook. May be repeated. Graded on credit-non-credit basis.

6320 Assessment in Applied Behavior Analysis

This course introduces students to the fundamentals of measurement and evaluation and their application in applied behavior analysis (ABA). The course prepares students to administer, score, and interpret indirect and direct forms of behavioral assessments. Students learn to critique and analyze published research analyzing commonly used assessments in behavior analysis.

6325 Positive Behavior Interventions and Supports

This course prepares students to work effectively within a positive behavior interventions and supports framework. Positive behavior interventions and supports is a school-wide approach to managing behavior that targets teaching and reinforcing desired, positive behavior among children in a classroom.

6330 Seminar in Learning and Development Issues

Pre-requisite(s): Doctoral standing.

This seminar examines current issues in educational psychology from a historical and research perspective. Readings will focus on the application of psychological concepts to the educational process.

6332 Advanced Human Growth and Development

Pre-requisite(s): EDP 5332.

Individual development from birth through adolescence is examined in depth. A biopsychosocial approach is used to frame physical, cognitive, and social-emotional development within social-cultural and familial environments. New theories and research methodologies are explored.

6333 Advanced Study of Human Learning

Pre-requisite(s): EDP 5333, 5334, and 5335.

Individualized, directed study of topics in human learning. Topics include attention and perceptual learning, language acquisition, memory, and social learning. Students choose a research problem in human learning, do a review of the literature, and conduct a pilot study to investigate the problem.

6335 Research Practicum in Education (Cross-listed as EDA 6335)

Pre-requisite(s): EDP 5335.

Educational research writing. Emphasis will be placed on the organization of the prospectus, the thesis, the dissertation, and the abstract which are typically required by graduate schools in professional fields. Individualized and critical assistance will be given in the research writing style and composition mechanics befitting the research design chosen.

6336 Qualitative Research and Data Analysis (Cross-listed as EDC 6336)
Pre-requisite(s): EDP 5335.

The development of an in-depth understanding of the major methods of inquiry associated with qualitative research will be emphasized. These include participant observation, interviewing, and document analysis. Additionally, an appreciation for the strengths and limitations of engaging in qualitative research and a general understanding of the paradigms that undergird qualitative research and their implications for conducting qualitative inquiry will be cultivated.

6337 Psychometric Theory and Test Construction
Pre-requisite(s): EDP 5340.

Review of the theoretical literature and construction of direct and indirect performance tests. Course will cover cognitive, affective, and psychomotor domains, theoretical assumptions underlying test design, criteria for the appropriate construction of discreet item forms, processes used to establish test validity and reliability, and use of test construction software.

6338 Grant Writing (Cross-listed as EDC 6338)

Information about sources of external funding and instruction in the techniques of grant writing.

6339 Ethnographic Research Methods in Education (Cross-listed as EDC 6339)

See EDC 6339 for course information.

6340 Practicum in Adult Learning: Campus-Based

Campus-based experiences in a higher education setting. Particular attention will be given to the design of courses of study and instructional strategies that encourage inquiry with the adult learner.

6341 Practicum in Adult Learning: Field-Based

In-depth experiences in a field-based educational or other setting. Particular attention will be given to the development, implementation, and evaluation of programs for adult learners.

6343 Consultation and Supervision in Applied Behavior Analysis

This course teaches students to apply the principles of applied behavior analysis to consultation, supervision, and management. Students learn skills needed to analyze cases and provide effective behavioral consultation. There is an emphasis on the practical application of consultation skills within a problem-solving, behavioral consultation framework.

6345 Adult Learner-Advanced

Characteristics of the young and mature adult learners with an emphasis on intellectual development. An analysis of theories of adult learning will be included.

6350 History and Systems of Psychology and Educational Applications

How systems of psychological thought develop in the context of the philosophy of science. Changing systems in psychology are examined, emphasizing their influence on theory, design, and the delivery of educational programs and psychological services.

6353 Creativity and Problem Solving

Focuses on how to teach and instruct from examining the basic theories, models, and research of creativity and problem solving and their applications to the development of individuals. Differences that result from an interaction among personality, creativity, and ecological factors will be related to the design of programs and curriculum that meet the changing abilities and needs of adult learners.

6354 Advanced Single Case Design
Pre-requisite(s): EDP 5357.

An advanced study of single case research designs. The course prepares students to conduct single-case research utilizing advanced, combined, and modified designs. Additionally, students learn how to conduct meta-analyses of single-case reviews, employing a variety of advanced effect

size measures. Finally, students learn to critique and analyze published research employing a variety of single-case designs.

6355 Advanced Concepts in Applied Behavior Analysis
Pre-requisite(s): EDP 5346 and 5356.

This course is an advanced study of applied behavior analysis. The content of the course is related to principles and advanced concepts in applied behavior analysis. Students learn how to gather information about an advanced topic and how to present that information to others.

6359 Mixed Methods Research Design and Analysis (Cross-listed as EDC 6359)
See EDC 6359 for course information.

6360 Experimental Design I
Pre-requisite(s): EDP 5334 and 5335.

Course focuses on applied experimental designs that address the unique settings and systems of education, including data collection strategies for field work.

6361 Experimental Design II
Pre-requisite(s): EDP 5334, 5335 and 6360.

Course focuses on unique models for research in education settings including advanced experimental designs, path analysis, general linear modeling, hierarchical linear modeling, and structural equation modeling.

6362 Applied Multiple Regression/Correlation Analysis in Education
Pre-requisite(s): EDP 5334.

Applications of correlation and multivariate regression analysis procedures to issues in education research, such as building, evaluating, and validating multiple regression models.

6363 Verbal Behavior

This course is an advanced study of language conceptually based upon the principles of behavior analysis. The course develops an understanding of language according to the two primary theories in the field of behavior analysis, Skinner's verbal behavior and relational frame theory (RFT).

6365 Latent Variable Models in Education
Pre-requisite(s): EDP 5334, 6360, and 6362.

An advanced statistics class that builds on general multiple regression models to extend to the measurement of latent variables, such as factor analysis and structural equation modeling.

6366 Item Response Theory
Pre-requisite(s): EDP 6337 and 6362.

An advanced psychometrics class designed to introduce the development and testing of item response models, as well as applying the models to measurement instruments.

6367 Individual Differences
Pre-requisite(s): EDP 6337.

An advanced psychometrics and statistics class, introducing selected topics in behavior genetics, intelligence, and personality research.

6370 Case Study Research Methods and Analysis in Education (Cross-listed as EDC 6370)
See EDC 6370 for course information.

6380 Community Experience in Developmental Disability Services

Students complete a field experience within a publicly funded program for children with developmental disabilities. Approved placements include public school special education classrooms, early childhood services programs, and Mental Health Mental Retardation (MHMR) programs. Students complete activities associated with applied behavior analysis (ABA) and the therapeutic or educational services provided by the supervising entity.

6385 Internship in Applied Behavior Analysis

A supervised internship in Applied Behavior Analysis (ABA). Students complete 150 hours of field experiences in a pre-approved placement. Students in this course are expected to complete activities associated with the practice of ABA as well as become actively involved in the research activities of the supervising entity. A Board-Certified Behavior Analyst supervises all field experiences.

6390 Seminar: Education

Designed to meet individual needs of doctoral students. May be repeated.

6V00 Dissertation proposal **1 to 9 sem. hrs.**

For doctoral students who have completed all required coursework but have not yet completed preliminary examinations. Students will prepare a doctoral research proposal. The course may be repeated up to three times.

6V99 Dissertation **1 to 9 sem. hrs.**

Research, data analysis, writing, and oral/written defense of an approved doctoral dissertation. At least nine hours of EDP 6V99 are required.

ELECTRICAL AND COMPUTER ENGINEERING (ELC)

4318 Avionics System Design (Cross-listed as AVS 4318)

Design of avionics systems for civil and military aircraft. Topics include avionics system technology and architectures; system engineering principles; radar, electro-optical, and radio frequency sensors; displays; and communication and navigation systems.

4320 Introduction to Optics

Pre-requisite(s): ELC 3335.

Geometrical optics, electromagnetic waves, diffraction, interference, polarization, Fourier optics, laser fundamentals, and optical communication basics. Laboratory sessions include semiconductor laser measurement, fiber optic coupling, and Michelson interferometer setup. Fee: $50

4330 Introduction to Robotics (Cross-listed with ME 4330)

Pre-requisite(s): MTH 2321 and MTH 3325.

Analysis of robot manipulators, including forward and inverse kinematics, rigid-body rotation parameterizations, velocity kinematics, path planning, nonlinear dynamics, single and multi-variable control. (3-0) Fee: $50

4332 Automatic Control Systems

Pre-requisite(s): ELC 3335.

Analysis and design of linear feedback control systems. Laplace transforms, transfer functions, signal-flow graphs, electrical and mechanical system modeling, state variables, system stability, time-domain response, root-locus method, Nyquist criterion, and compensator design. Laboratory exercises to illustrate course concepts. (2-3) Fee: $100

4340 Power Systems

Pre-requisite(s): ELC 3335.

Analysis of power systems, including energy sources, transmission lines, power flow, transformers, transmission and distribution systems, synchronous generators, stability, power system controls, short-circuit faults, and system protection.

4345 Power Electronics

Pre-requisite(s): ELC 3314 and 3114.

Introduction to power electronic systems with emphasis on power control and switching circuits for AC/DC, DC/DC, and DC/AC converters. Associated laboratory component. (2-3) Fee: $100

4350 Principles of Communication
Pre-requisite(s): ELC 3335 and STA 3381.
Signal analysis, modulation techniques, random signals and noise, digital transmission, information theory, coding. (3-0)

4351 Digital Signal Processing
Pre-requisite(s): ELC 3335 and STA 3381.
Discrete-time signals and systems, sampling theory, z-transforms, spectral analysis, filter design, applications, and analysis and design of discrete signal processing systems. Credit cannot be earned for ELC 4351 if credit is earned for BME 4452. (3-0)

4353 Image Formation and Processing (Cross-listed with BME 4353)
Pre-requisite(s): Credit or concurrent enrollment in ELC 4335 and STA 3381.
Introduction to image formation systems that provide images for medical diagnostics, remote sensing, industrial inspection, nondestructive materials evaluation and optical copying. Image processing, including image enhancement, analysis, and compression. Student specialization through assignments and project. (3-0)

4360 Software Systems
Pre-requisite(s): ELC 3336.
Software engineering methods and tools. Topics include the development lifecycle, requirements, specifications, design, implementation, verification, validation, and maintenance, project management and professional ethics. (3-0)

4362 Wireless Sensor Networks
Pre-requisite(s): ELC 3338, ELC 3314, and ELC 3114 or consent of instructor.
Characterization and design of large-scale wireless sensor networks. Topics include wireless channel utilization, media access protocols, routing, energy management, synchronization, localization, data aggregation, and security. Laboratory exercises using wireless sensor devices, cross-development, and real-time operating systems. (2-3) Fee: $150

4372 Bioinstrumentation (Cross-listed as BME 4372)
Pre-requisite(s): ELC 2330.
Principles of biomedical instrumentation and their real-world applications. Emphasis on understanding the basic design principles and technologies used in bioelectrical, biomechanical, and clinical instrumentation. (2-3)

4377 Solar Energy (Cross-listed as ME 4377)
Pre-requisite(s): ELC 2330 and ME 2345.
A first course in the principles of solar energy collection, conversion and storage. Topics include solar photovoltaic and thermal collectors, sun-earth geometry, ground and sky radiation models, and balance-of-system components including stratified tanks, pumps, and power inverters. Students will learn industry-standard TRNSYS energy modeling software. Fee: $50

4381 Antennas and Wireless Propagation I
Pre-requisite(s): ELC 3337.
Fundamentals of radiation and propagation, antenna parameters, linear antennas, linear and planar phased arrays, and microstrip antennas. Analysis and design principles, simulation and measurement. Fee: $50

4383 RF/Microwave Circuits I
Pre-requisite(s): ELC 3337.
Introduction to passive RF, microwave, and wireless circuit design. Topics include transmission line theory; network analysis; impedance matching techniques; design of resonators, couplers, and filters; diodes; mixers; and principles and techniques of microwave measurements. Fee: $150

4384 RF/Microwave Circuits II
Pre-requisite(s): ELC 4383.

This is a second course in radio-frequency and microwave circuits covering microwave amplifier and oscillator design. Topics include the ZY Smith chart, matching network design, gain calculations, design for amplifier stability, noise figure and low-noise amplifier design, gain matching, and negative resistance oscillator design. A final project will require the design, simulation, construction, and testing of an amplifier using microwave CAD tools and hands-on measurements. Fee: $100

4396 Special Topics in Electrical or Computer Engineering
Pre-requisite(s): Consent of department chair.

Study of advanced topics in electrical or computer engineering. This course may be repeated once under a different topic.

4438 Embedded Systems Design
Pre-requisite(s): ELC 3336.

Design and implementation of embedded computer systems using microcontrollers, sensors and data conversion devices, actuators, visual display devices, timers, and applications specific circuits. Software design using microprocessor cross-development systems and real-time operating system principles. (3-3) Fee: $150

4V97 Special Projects in Electrical or Computer Engineering 1 to 6 sem. hrs.
Pre-requisite(s): Consent of department chair.

Advanced topics and/or special project activities in electrical or computer engineering.

5302 Engineering Analysis (Cross-listed as EGR 5302 and ME 5302)
Pre-requisite(s): Graduate standing in Engineering.

Selected topics in applied engineering mathematics. Topics include advanced linear algebra, signal theory, and optimization methods.

5311 Advanced Logic Design
Pre-requisite(s): Graduate standing in Engineering.

Computer-automated design of digital circuits. Functional specification; structural and behavioral modeling using hardware description languages; simulation for design verification and timing analysis; circuit synthesis for FPGA implementation; testing and fault diagnosis.

5313 Advanced Computer Architecture
Pre-requisite(s): ELC 4438 or consent of instructor.

Advanced topics in computer architecture, including instruction set design, instruction pipelines, super scaler and very-long instruction word processors, cache and virtual memory systems, multiprocessor systems, large data storage systems and computer networks.

5316 Real-Time Systems Design
Pre-requisite(s): ELC 4438 or consent of instructor.

Hardware and software characteristics of real-time concurrent and distributed reactive control systems; design methodologies; performance analysis; case studies and development projects.

5336 Advanced Engineering Electromagnetics
Pre-requisite(s): ELC 3337 or consent of instructor.

An in-depth study of electromagnetic fields and waves and their applications in modern wireless communication and sensor systems. Topics include Maxwell's equation for complex media, scalar and vector potentials, non-ideal transmission lines, cylindrical waveguides, general properties of guided waves, and antennas.

5337 Principles of Microwave Sensing and Measurement

Fundamentals of microwave sensor design and applications. Emphasis on understanding the basic principles, fundamental electrical and magnetic properties of materials, and the sensor configurations of RF/microwave instruments used in industrial and biomedical application.

5338 High Frequency Electronics Design

Design and analysis of solid-state electronic circuits at RF and microwave frequencies. Emphasis on operational characteristics and design procedures for two- and three-terminal semiconductor devices and the associated passive components and circuit fabrication techniques used for generating, amplifying, and processing signals in this frequency range.

5339 High Frequency Electronics II

Pre-requisite(s): ELC 5338 or consent of instructor.

The design of linear amplifiers and oscillators at microwave frequencies, including an emphasis on design procedures for optimum gain, stability, and noise performance of amplifiers and the negative resistance method for oscillators.

5340 Radar Engineering

Pre-requisite(s): ELC 5336.

Electromagnetics of radar, signal processing of radar, radar imaging, Doppler processing, and radar antenna arrays. Analysis and design principles, simulation, and measurement.

5351 Multidimensional Signal Analysis (Cross-listed with BME 5351)

Pre-requisite(s): ELC 4451.

Introduction to the processing and analysis of images in higher dimensions, including images and video. Characterization of higher dimensional signals. Multidimensional Fourier analysis, FFT's, systems and convolution. Reconstruction of images from projections. Tomography, Abel transforms, Radon transforms. Synthesis and restoration of signals using projection methods. Alternating projections onto convex sets. (3-0)

5353 Biomedical Signal Analysis (Cross-listed as BME 5353)

Pre-requisite(s): ELC 4451 or BME 4452.

Applications of signal theory and digital signal processing concepts toward biomedical signals. Topics include filters, signal modeling, adaptive methods, spectral analysis and statistical signal processing methods.

5354 Random Signals and Noise

Pre-requisite(s): ELC 3335 and consent of instructor.

Foundational treatment of probability, random variables and stochastic processes used in the analysis of random signals and noise in many areas of engineering. Topics include the modeling and properties of probability, scalar and vector random variables, the central limit theorem, stochastic processes, stationarity, ergodicity, the Karhunen-Loeve expansion, power spectral densities, response of linear systems to random signals, and Markov chains.

5356 Statistical and Adaptive Signal Processing

Pre-requisite(s): ELC 5354.

Unified introduction to the theory, implementation, and applications of statistical and adaptive signal processing methods. Key topics focus on spectral estimation, signal modeling, adaptive filtering, and signal detection.

5358 Introduction to Computational Intelligence

Pre-requisite(s): Consent of instructor.

Foundational knowledge of computational intelligence and its application to engineering problems. Discriminant analysis, artificial neural networks, perception training and inversion, fuzzy logic, fuzzy inference engines, evolutionary computation, particle swarms, intelligent agents, and swarm intelligence.

5360 Linear Systems
Pre-requisite(s): ELC 4332 or equivalent.
Analysis of linear systems, including system modeling, state-variable representations, discrete-time systems, linear algebra, linear dynamic equations, stability, observability, controllability, state-feedback and state-estimators, realization, and pole placement.

5362 Optimal Control
Pre-requisite(s): ELC 5360 or equivalent.
Optimal control problems, static optimization, optimal control of discrete-time systems, the variational approach to optimal control, linear quadratic regulator problems, the maximum principle, extensions of LQR problem, time-optimal control problems, dynamic programming.

5364 Intelligent Control
Pre-requisite(s): ELC 4332 or 4335 or Graduate standing.
Introduction to intelligent control and optimization using a control-engineering approach. Topics include decision-making techniques, neural network architectures for modeling and control, system identification, fuzzy systems, evolutionary algorithms, and swarm intelligence.

5370 Introduction to Information Theory
Pre-requisite(s): ELC 4350 or instructor approval.
Topics include: information models, entropy measures, data compression, coding theory, error correcting codes, the Kraft inequality, optimal codes, Shannon coding theorem, Burg's theorem, evolutionary informatics, Kolmogorov complexity, algorithmic information theory, and Chaitin's number.

5381 Advanced Power Grid Interface Techniques
Pre-requisite(s): ELC 4332 and either ELC 4340 or ELC 4345.
Introduction to distributed power generation, power conversion topologies and their control, power factor correction circuits, harmonic concepts and power quality, modeling and control of grid-connected loads and filters, interconnection standards and control issues, and control systems for rotating machines.

5390 Research Methods and Project Formulation (Cross-listed with BME 5390 and EGR 5390)
Pre-requisite(s): Approval of student's proposed master's thesis or project advisor.
Designed for students in the process of selection of thesis or project topic. Students will gain experience in literature and/or laboratory research methods and formulation of a project appropriate for their area.

5396 Special Topics in Engineering (Cross-listed as BME 5396, EGR 5396, and ME 5396)
See EGR 5396 for course information.

5397 Special Projects in Engineering (Cross-listed as BME 5397, EGR 5397, and ME 5397)
See EGR 5397 for course information.

5V99 Master's Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Approval of student's master's thesis advisor.
Students completing a master's program with a thesis must complete six hours of ELC 5V99.

6V10 Doctoral Prospectus Research **1 to 6 sem. hrs.**
Pre-requisite(s): Instructor approval.
Supervised research for developing a dissertation prospectus that will be the subject of the preliminary exam that will admit students to candidacy. A student may repeat this course for credit with a maximum of ten total hours. Registration for this course is sufficient for achieving full-time status.

6V99 Dissertation 1 to 12 sem. hrs.
Pre-requisite(s): Consent of student's supervisory graduate committee and admission to doctoral candidacy.

Required of all doctoral candidates. In no case will fewer than 12 semester hours be accepted for a dissertation. Students may not enroll for dissertation hours until they have been officially accepted into candidacy for the doctoral degree. After initial enrollment, students must register for at least one semester hour of dissertation every semester thereafter (summer semester excluded).

ENGINEERING (EGR)

4396 Special Topics in Engineering
Pre-requisite(s): Consent of department chair.

Study of advanced topics in engineering. This course may be repeated once under a different topic.

4V97 Special Projects in Engineering 1 to 6 sem. hrs.
Pre-requisite(s): Consent of department chair.

Advanced topics and/or special project activities in engineering. Fee: $50

5001 Baylor Engineering and Research Seminar
Pre-requisite(s): Admission to Engineering graduate program.

A weekly forum for presentation by guest speakers, faculty and graduate students on current research and other topics of interest. Graduate students must enroll and attend two semesters or more as required by their advisory committee.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5302 Engineering Analysis (Cross-listed as ELC 5302 and ME 5302)
See ELC 5302 for course information.

5390 Research Methods and Project Formulation (Cross-listed as BME 5390 and ELC 5390)
See ELC 5390 for course information.

5396 Special Topics in Engineering (Cross-listed as BME 5396, ELC 5396, and ME 5396)
Pre-requisite(s): Approval of department chair.

Study of special topics in engineering. This course may be repeated for a total of four times with different topics.

5397 Special Projects in Engineering (Cross-listed as BME 5397, ELC 5397, and ME 5397)
Pre-requisite(s): Consent of department chair.

Graduate level topics and/or special project activities in engineering.

5V98 Master's Project 1 to 6 sem. hrs.
Pre-requisite(s): Approval of student's master's project advisor.

Students completing a master's program with a project must complete three or six hours of this course, as determined by the student's individual plan of study.

ENGLISH (ENG)

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5301 Old English Language

Pre-requisite(s): Graduate standing or permission of the instructor.

Introduction to the Old English language through intensive study of Old English grammar and reading of Old English texts. Required for doctoral candidates.

5302 Old English Literature

Pre-requisite(s): Graduate standing and at least one course in Old English language (ENG 5301 or equivalent) or permission of the professor.

Continuation of ENG 5301. Introduction to a wide range of Old English literary texts and the textual and critical discussion surrounding them. May be repeated one time for credit provided topic is different.

5303 Studies in Linguistics

Tools and methods for the analysis of language. Subject matter may include phonology, morphology, syntax, semantics, pragmatics and discourse, language in society, dialect and variation, or stylistics. Topic varies according to demand. May be repeated one time for credit provided topic is different.

5304 Bibliography and Research Methods (Cross-listed as AMS 5304)

Practical introduction to the nature of printing and transmission of written material; a guide to the use of the libraries for graduate-level research; approaches to purposes for graduate studies. May be repeated one time for credit provided topic is different.

5306 Literary Criticism: Seminar (Cross-listed as AMS 5306)

Issues in critical theory from Plato to the present with particular attention given to current practice and trends in literary analysis. May be repeated one time for credit provided topic is different.

5308 Independent Study in Literature (Cross-listed as AMS 5308)

Research or reading project undertaken by an individual student working under the direction of a professor. Project to concern literary topics beyond what is included in the defined seminars. Prospectus to be approved by the director of graduate studies in English. May be repeated one time for credit provided topic is different.

5309 Seminar on Curriculum and Pedagogy in English

Seminar designed for M.A. and Ph.D. students who intend to teach in higher education or secondary school as a career. While most graduate courses in the program focus directly on the contents of literary knowledge in the form of authors, genres, periods, styles, and so on, this course focuses on curriculum and pedagogy issues. May be repeated one time for credit provided topic is different. Maximum six semester hours.

5310 Rhetoric and Composition: Seminar

Issues in rhetoric from antiquity to the present, focusing on historical development and theoretical problems; contemporary studies in the production of texts and the teaching of writing. May be repeated one time for credit provided topic is different.

5312 Middle English Literature: Seminar

Study by seminar method of an aspect of Middle English literature: Chaucer, the alliterative revival, medieval drama, and romance. May be repeated one time for credit provided topic is different.

5314 Creative Writing
Workshop in creative writing and designed for thesis track and non-thesis track students actively engaged in creative writing. Course content varies according to instructor preference and expertise. May be repeated one time for credit provided topic is different. Maximum six semester hours.

5324 Sixteenth-Century English Literature: Seminar
Poetry, drama, and/or prose of a single author, or of a movement, or of a topic integral to sixteenth-century English literature. May be repeated one time for credit provided topic is different.

5330 Seventeenth-Century English Literature: Seminar
Selected works of Donne and other Metaphysical poets, Jonson and his followers, Milton, Bacon, Browne, Burton, Bunyan, and others to the Restoration Period. May be repeated one time for credit provided topic is different.

5340 Restoration and Eighteenth-Century English Literature: Seminar
Major writers, literary background, and cultural aspects of the Restoration and eighteenth century. Major emphasis varies with each offering. May be repeated one time for credit provided topic is different.

5350 Early English Romantic Literature: Seminar
One or more of the poets and essayists of the Early English Romantic period. May be repeated one time for credit provided topic is different.

5352 Later English Romantic Literature: Seminar
One or more of the poets and essayists of the Later English Romantic period. May be repeated one time for credit provided topic is different.

5361 Victorian Poetry: Seminar
Poetry of a single author or a movement or topic embracing several writers of nineteenth-century England. May be repeated once for credit provided topic is different.

5362 Victorian Prose: Seminar
Selected works of fiction and/or non-fiction from the Victorian period. Course may emphasize a single author or a movement or topic embracing several writers of nineteenth-century England. May be repeated one time for credit provided topic is different.

5364 Browning: Seminar
Several key poems with an examination of the evolution of interpretation of these poems. Major focus on The Ring and the Book: its sources, structure, autobiographical content, and interpretation. Students are advised to complete ENG 4364 before registering for ENG 5364. May be repeated one time for credit provided topic is different.

5371 Modern British Literature: Seminar
Poetry, fiction, and/or drama of a single author or a movement embracing several British authors writing between 1900 and 1940. May be repeated once for credit provided topic is different.

5372 Contemporary British Literature: Seminar
Poetry, fiction, and/or drama of a single author or a movement embracing several British authors writing after 1940. May be repeated once for credit provided topic is different.

5374 Studies in Literature
American, British, or World literature as it crosses national boundaries or treats themes or movements that do so. Topic announced for each session. May be repeated one time for credit provided topic is different. Maximum six semester hours.

5376 Religion and Literature Seminar
Pre-requisite(s): Graduate standing in the doctoral Religion and Literature concentration or consent of the instructor.

Designed to clarify the plurality of ways in which the integrative study of religion and literature may be engaged. Among the theoretical approaches to be examined, these are representative: humanist, feminist, atheist, Jewish, and Christian. The course will include at least one major theological aesthetician and two or three major literary texts that are susceptible of multiple religious readings. May be repeated one time for credit provided the topic is different.

5377 English Religious Authors: Seminar

Imaginative literature with religious concerns broadly defined, of a single author or complementary authors, writing in English. May be repeated once for credit provided topic is different.

5391 Early American Literature (Cross-listed as AMS 5391)

Poetry or prose of a single author or of a movement or topic embracing several writers of eighteenth-century America. May be repeated one time for credit provided topic is different.

5393 Nineteenth Century American Literature (Cross-listed as AMS 5393 and ENG 5390)

Poetry or prose of a single author or of a movement or topic embracing several writers of nineteenth-century America. May be repeated one time for credit provided topic is different.

5394 Modern American Literature (Cross-listed as AMS 5394)

Poetry, fiction, or drama of a single author or a movement embracing several writers from 1900-1940. May be repeated one time for credit provided topic is different.

5395 Contemporary American Literature (Cross-listed as AMS 5389)

Poetry, fiction, or drama of a single author or a movement embracing several writers from 1940 to the present. May be repeated one time for credit provided topic is different.

5396 American Studies: Seminar (Cross-listed as AMS 5396)

American studies, treating such subjects as literature, history, philosophy, psychology, theology, and education. The course focuses on examining texts as cultural documents. May be repeated one time for credit provided topic is different.

5V99 Thesis **1 to 6 sem. hrs.**

Supervised research for the master's thesis. 1-6 semester hours; maximum ten semester hours.

6374 Advanced Studies in Literature
Pre-requisite(s): Twenty-one semester hours of English graduate courses.

Specialized topics not ordinarily included in regularly scheduled graduate seminars, e.g., the Pre-Raphaelites, American Puritanism, Derridean influences. Topic announced for each semester or session.

6V10 Prospectus Research **1 to 3 sem. hrs.**
Pre-requisite(s): Completion of required course work.

Supervised research for developing and writing a Dissertation Prospectus Proposal that will be subject to review and approval by the Supervisory Committee.

6V99 Dissertation **1 to 12 sem. hrs.**

Supervised research for the doctoral dissertation. One to twelve semester hours; maximum seventeen semester hours.

ENTREPRENEURSHIP (ENT)

5329 Entrepreneurial Finance

This course examines the entrepreneurial venture process that begins with identifying an opportunity and ends with "harvesting" the value created. Much of the course is viewed from a financial perspective. The course is divided into four sections: 1) how to recognize and evaluate a venture opportunity, 2) how to secure the needed financial resource, 3) how to capture the opportunity, and 4) how to unlock the economic value created by the venture. The course relies on both "live" cases in which the entrepreneur visits the class when the case is analyzed and Harvard Business School cases.

5331 Baylor Venture Capital Fellows

Pre-requisite(s): Consent of instructor.

This course provides a unique learning opportunity for MBA students, allowing them to receive hands-on experience working with venture capital firms.

This course can be repeated for credit one time only.

5332 The Entrepreneurial Start-up: Opportunity Recognition and Venture Launch

The Entrepreneurial start-up focuses on two very important aspects in the early life of a new venture, how to identify and validate the opportunity and how to plan and gather resources for successfully launching the business. The issue of opportunity recognition is the focus of the first part of the course. The second part of the course provides the tools and skills to assemble the right team, assets and financing to successfully start the business. Throughout the course students will use actual case studies to develop the judgment it takes to turn an attractive idea into a profitable company.

5333 Creating Value through Growth and Harvest

Students examine recommended procedures for developing a systematic pattern of profitable growth, keeping the venture on course, reacting to unexpected changes, and negotiating a win-win deal structure. Then they address the process involved in harvesting or exiting the venture, dealing with such issues as exit strategies and methods.

5334 Seminar in Business Plan Case Competition

Pre-requisite(s): ENT/FIN 5329 or consent of instructor.

The students in this seminar will prepare business plans for business opportunities they believe have merit and might want to launch after graduation. One or more of the business plans developed in the course will be selected to compete in regional and national business plan competitions. In addition, the better business plans may be presented to investors that have been identified by the business school for possible funding of the opportunity. The course will be facilitated by a faculty member and a practitioner who has experience in writing business plans.

5335 Entrepreneurial Field Studies

This practicum course offers insight into the entrepreneurial process of managing and growing a business. Student teams with a faulty supervisor act as consultants to client firms facing challenges associated with growth. A process of consulting is used which emphasizes planned change management. Guest speakers from nationally recognized consulting firms present their philosophy and practice tools and serve as sounding boards for the student consultants.

5341 Technology Entrepreneurship

Technology Entrepreneurship examines the entire technology commercialization process, from concept to market. It is intended to prepare students in business, engineering, and the sciences to understand and participate effectively in the processes required for successful introduction of new technology products in the marketplace.

5342 Corporate Entrepreneurship: Initiating and Sustaining Innovation

Exploration of the nature of innovation -- its drivers, patterns, and impacts on society and organizations of all sizes and missions. Use of tools and processes in a larger organizational context where selecting the best innovation target is critical.

5354 Business Research in Latin America (cross-listed as BUS 5354)
Pre-requisite(s): Instructor approval.

Offered only as part of the Baylor in the Caribbean study abroad program, this course involves the development and exploration of business-related research questions as they apply to Latin America. Students combine insights gained from in-country experiences with research from secondary sources for their proposed projects.

5363 Seminar in Mergers and Acquisitions (Cross-listed as FIN 5363)
See FIN 5363 for course information.

5V98 Special Studies in Entrepreneurship
Pre-requisite(s): Consent of instructor.

Student may register for a maximum credit of six semester hours. Fee: $50

6310 Seminar in Strategic Management

This course involves a critical review of theory and research in the field of strategic management. The scope of the course is comprehensive, encompassing the following domains: strategic content, strategic processes, top executives, and corporate governance. Particular emphasis is placed on empirical study of strategic issues.

6320 Seminar in Entrepreneurship

This course offers a systematic overview of the research literature on entrepreneurship and its applications. The course takes an interdisciplinary approach, building on economics, management, sociology, psychology, history, and other academic disciplines.

6330 Theoretical Perspectives in Strategy and Entrepreneurship

This course exposes doctoral candidates to advanced theoretical perspectives, models, approaches, and critiques in the fields of business strategy and entrepreneurship. The course takes an interdisciplinary perspective, building on core insights from economics, sociology, psychology, political science, and other fields to develop an integrated framework for analyzing advanced topics in entrepreneurship, innovation, management, and organization.

6340 Seminar in Research Methods

This seminar prepares doctoral candidates to conduct research in the organizational and behavioral sciences. Special attention is paid to the topics of construct development and validation and the identification of the necessary conditions for establishing causal relationships. The major focus of the seminar is on methodological issues, as opposed to analytical issues.

6350 Seminar in Organization Theory

This interdisciplinary seminar introduces the major theoretical approaches and debates in organizational theory, drawing primarily on sociology and secondarily on economics and psychology, to explain how organizations form, survive and grow, interact, manage resources, and deal with internal and external issues.

6V00 Dissertation Proposal and Prospectus
Pre-requisite(s): Departmental approval required.

Research for doctoral students studying for preliminary examinations, preparing their topic proposals or writing their prospectuses in anticipation of candidacy. The course may be repeated. The course provides students full-time status.

6V98 Entrepreneurship Research Practicum 1 to 6 sem. hrs.
Pre-requisite(s): Entrepreneurship PhD students only.

Research course for PhD students in Entrepreneurship. This course is only for doctoral students who have not yet been admitted to candidacy. Students are required to coordinate with their PhD advisors and participate in activities such as literature reviews, paper writing, data collection, oral presentations, seminar participation, and professional activities.

6V99 Dissertation
Pre-requisite(s): Departmental Approval required.

Supervised research for the doctoral dissertation. A total of at least nine semester hours is required for the completion of the dissertation. Students register for dissertation hours during dissertation research and receive credit for them when the dissertation is approved.

ENVIRONMENTAL SCIENCE (ENV)

4322 Climate Anthropology (Cross-listed as ANT 4321)
See ANT 4321 for course information.

4302 Team Problem Solving in Environmental Studies

Students will contribute the skills of their specializations to analyze and to suggest a solution to a current environmental problem. May be repeated once with a change of content. Fee: $120

4304 Aquatic Chemistry
Pre-requisite(s): ENV 3387 or consent of instructor.

Concepts and issues in aquatic chemistry, including chemical equilibria of natural waters and anthropogenic impacts. Required field trips.

4307 Environmental Law (Cross-listed as PSC 4307)
Pre-requisite(s): Upper-level standing or consent of instructor.

Fundamentals of environmental protection laws in the United States, including the evolution of environmental law in the areas of case law, common law, and administrative law. Topics include air and water quality, toxic and hazardous substances, endangered species, and wetlands and coastal management issues.

4308 Air Quality Regulation

Reviews history and policy of United States, transboundary, and global air pollution and resulting environmental regulations.

4310 World Food Problems (Cross-listed as ANT 4311)
Pre-requisite(s): Upper-level standing.

A seminar approach with emphasis on the various causes of malnutrition including the ecological basis for food production, the impact of economics and politics on food production and distribution, and the consequences of malnutrition.

4318 Heavy Metals & Global Public Health
Pre-requisite(s): BIO 1305 or BIO 1405, BIO 1306 or BIO 1406, CHE 1301, and CHE 1302, and upper level standing.

Examines the impacts of natural and anthropogenic sources of metals on human health and the relationship between natural geological factors and health in humans and animals in the context of geographic significance and public health responses.

4323 The Environment and Economic Analysis (Cross-listed as AVS 4323 and ECO 4323)
Pre-requisite(s): ECO 1305 or 2306; and upper-level standing.

Economic analysis in description, analysis, and policy formulation of environmental problems such as natural resource development, ecology, energy needs, noise, water, and air pollution. Economic tools used will include social welfare analysis, externalities, and benefit cost analysis.

4325 Human Health Risk Assessment
Pre-requisite(s): ENV 3314 or concurrent enrollment in ENV 3314; or consent of instructor.

Concepts, data sources, and methodologies used in the field of human risk assessment, including environmental hazard identification, dose-response assessment, exposure assessment, risk characterization, and risk communication. Required project utilizing professional risk assessment software. Fee: $60

4327 Human Catastrophe and Cultural Response (Cross-listed as ANT 4327)
See ANT 4327 for course information.

4330 Urban Political Processes (Cross-listed as PSC 4330)
See PSC 4330 for course information.

4333 Coastal Zone Management
Pre-requisite(s): Upper-level standing.
Strategies for managing beaches, deltas, barrier islands and coastal seas, including issues in flood and storm risk, pollution mitigation, recreational development and fisheries exploitation.

4335 Applied Environmental Impact Analysis
Government regulations and increased citizen awareness relationship to the impact of plans and projects on the environment. The course includes an examination of major environmental legislation and its impact on decision making in the public sector. Legislative Acts pertinent to the development of Environmental Impact Analysis are studied. (3-0)

4340 Environmental Archaeology (Cross-listed as ANT 4340 and ARC 4340)
See ANT 4340 for course information.

4344 Fundamentals of Toxicology (Cross-listed as BIO 4344)
Pre-requisite(s): CHE 1301, 1302, 3331, BIO 1305, BIO 1306 and BIO 3422; or consent of instructor.
Basic concepts of toxicology, including historical perspectives, the disposition and metabolism of toxic substances, pharmacokinetics, target organ toxicity, non-organ directed toxicity, toxic agents, industrial toxicology, forensic toxicology, environmental toxicology, toxicity testing techniques, and risk assessment.

4345 Water Management (Cross-listed as GEO 4345)
Interdisciplinary field of water management. Scientific, technical, institutional, economic, legal, and political aspects of water management. Fee: $50

4351 Futuristics (Cross-listed as ANT 4351)
See ANT 4351 for course information.

4355 Principles of Renewable Resource Management
Theory, principles, and management of renewable resources to meet human needs. Field trips to management activities will be included. (3-0)

4362 Applied Anthropology (Cross-listed as ANT 4362)
See ANT 4362 for course information.

4365 The Environment and Energy
Pre-requisite(s): ENV 1301 and upper-level standing.
Fundamental concepts of energy: the nature of energy flows and storage, potential and kinetic energy, energy loss and reversible and irreversible processes. Renewable and non-renewable energy sources and the impact of energy consumption on problems of societal sustainability.

4369 Seminar in Anthropology (Cross-listed as ANT 4369)
See ANT 4369 for course information.

4371 Wetlands (Cross-listed as GEO 4371)
See GEO 4371 for course information.

4374 Global Soil Systems (Cross-listed as GEO 4373)
See GEO 4373 for course information.

4375 Natural Landscape Evaluation and Planning (Cross-listed as GEO 4375)
See GEO 4375 for course information.

4377 Advanced Studies in Wilderness, Parks, and Nature Reserves
Pre-requisite(s): ENV 3306 or consent of instructor.
Topics in the management of national or state parks, nature reserves or wilderness areas, such as recreational impacts, disturbance ecology, or environmental interpretation. May be conducted as an off-campus field seminar. Fee: $100

4380 Restoration Ecology (Cross-listed as BIO 4381)
Pre-requisite(s): ENV 2375 and 2376, or BIO 3303.
Principles and practices for restoring natural systems that have been degraded or destroyed. Emphasis on re-establishment of soils, plants, and animals in terrestrial and aquatic environments. Legislative, political, industrial, and regulatory perspectives considered. (3-0)

4386 Remote Sensing (Cross-listed as AVS 4386, BIO 4386, and GEO 4386)
See GEO 4386 for course information.

4389 American Environmental History (Cross-listed as HIS 4388)
See HIS 4388 for course information.

4397 Tropical Environments: Ecology and Sustainable Management
Pre-requisite(s): Consent of instructor and upper-level standing.
Off-campus field course exploring tropical ecosystems, such as rainforests and coral reefs. Investigation of past impacts of human cultures, and of sustainable practices for future environmental management. Topics may include agriculture, forestry, aquatic resources, energy production, and ecotourism. Fee: $120

4450 Applied Forest Ecology
Pre-requisite(s): ENV 1301 or BIO 1306.
Ecological analysis of forest and woodland structure, energy and nutrient cycling, population dynamics and response to disturbance. Application of concepts to sustainable forest management. Fee: $100

4485 Introduction to Geographic Information Systems (Cross-listed as AVS 4485, GEO 4485)
See GEO 4485 for course information. Fee: $50

4487 Advanced GIS Analysis (Cross-listed as AVS 4487, and GEO 4487)
See GEO 4487 for course information. Fee: $50

4680 Field School in Cultural Anthropology (Cross-listed as ANT 4680)
See ANT 4680 for course information.

4V13 Special Topics in Field and Laboratory Methodologies **1 to 3 sem. hrs.**
Pre-requisite(s): Upper-level standing or consent of instructor.
A field experience centered on a region, ecosystem type, or environmental issue. Incorporates system-specific sampling methodologies. Requires off-campus field trips. May be repeated up to a total of three credit hours when content differs. Fee: $150

4V50 Problems **1 to 3 sem. hrs.**
Advanced interdisciplinary study of the environment. Subject and hours credit mutually agreed upon by student and directing professor(s) prior to registration. May be repeated for a maximum total credit of three semester hours.

5102 Current Advances in Environmental Science
This seminar course includes applications of scientific inquiry to environmental science and development of policies that influence the quality of the environment. Graduate students attend seminars and engage the speaker on a weekly basis.

5155 Advanced In-Situ Instrumentation Techniques (Cross-listed as PHY 5155)
See PHY 5155 for course information.

5188 Advanced Laboratory Methods in Life Sciences
Co-requisite(s): ENV 5288

Advanced Laboratory Methods in Life Sciences is a course for the advanced life sciences student. Course content explores biochemical and genetic techniques via classroom lectures and discussion as well as active demonstration/participation in the laboratory. Students learn principles and techniques used to evaluate a variety of endpoints across several disciplines. Fee: $200

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5288 Concepts for Advanced Laboratory Methods in Life Sciences
Co-requisite(s): ENV 5188.

Concepts for Advanced Laboratory Methods in Life Sciences is a course for the advanced life sciences student. It explores laboratory methods via classroom lectures and discussion as well as active demonstration/participation in the laboratory. Students learn principles and techniques used to evaluate a variety of endpoints across several disciplines. Fee: $200

5300 Integrative Seminar in Environmental Studies

An in-depth interdisciplinary examination of environmental practices in six areas: the ecosphere, human ecosystems, principles and practices in areas such as the ecosphere, human ecosystems, natural resources and pollution, environment and society, methodology, and emerging themes.

5301 Global Health and Environmental Aspects of Disaster of Risk Reduction
Pre-requisite(s): Graduate standing or permission of instructor.

This course studies the global health and environmental concepts of disaster response and risk reduction. Lectures and discussions explore the practical aspects of recent disasters, disease outbreaks, and environmental incidents and the methods, strategies, and tools that could be used to mitigate future disasters.Fee: $100

5302 Foundations of Environmental Health Science (Cross-listed as PUBH 5302)

Overview of current topics in environmental health, including environmental toxicology and disease, food security and safety, risk assessment, air and water quality, waste management, emerging contaminants and diseases, public health concepts of emergency preparedness, environmental regulation, and mitigation of environmental risks.

5303 Environmental Chemical Analysis
Pre-requisite(s): ENV 3387 or CHE 3331; or consent of instructor.

Analytic chemistry techniques used in environmental science including sampling, wet chemistry, chromatography, and spectroscopic methods. Fee: $90

5310 Agricultural Ecology

Ecological basis for food production in both temperate and tropical countries with emphasis on understanding the nature of the vulnerability of agriculture to environmental disturbance and on possible mechanisms to improve the stability and sustained productivity of improve the stability and sustained productivity of agricultural systems.

5315 Research Design and Methods
Pre-requisite(s): Senior or graduate standing; or consent of instructor.

Research design and methods. Students produce a comprehensive research proposal in their major field(s) of study and submit for funding to appropriate agency or foundation.

5321 Energy Economics (Cross-listed as ECO 5321)
See ECO 5321 for course information.

5323 Research Design and Research Methods (Cross-listed as PSC 5323)
See PSC 5323 for course information.

5325 Advance Methods for Human Health Risk Assessment and Analysis
Pre-requisite(s): Successful completion of ENV 4325, graduate standing, or approval by the instructor.

This course introduces students to advanced concepts, data sources, and methodologies used in the field of human health risk assessment and provides them with an understanding of current issues in environmental sciences. Students conduct a quantitative risk assessment, which is demonstrated in the final project that includes a risk management proposal with uncertainty/sensitivity analysis.

5330 Conservation Biology (Cross-listed as BIO 5330)
See BIO 5330 for course information.

5342 Ecological Risk Assessment
Pre-requisite(s): Graduate standing or consent of instructor.

A thorough treatment of assessment procedures for quantifying hazardous effects of chemicals on the environment. Topics will include but are not limited to components of risk assessment paradigm, ecological risk assessment for contaminated sites, the precautionary principle, and other contemporary risk assessment issues.

5350 The Environment and Third World Development
This course introduces students to the field of environmental issues and Third World development with emphasis on sustainable development and ensured environmental security.

5360 Biological Invasions: Ecology and Management (Cross-listed as BIO 5360)
See BIO 5360 for course information.

5368 Integrated Energy Resource Systems (Cross-listed as AVS 5368)
A seminar approach which examines various examples of integrated energy systems combining different renewable and conventional resources.

5370 Advanced Environmental Toxicology and Chemistry
Pre-requisite(s): Two semesters each of university-level chemistry and biology or consent of instructor.

Advanced principles of environmental toxicology, environmental fate of pollutants, and risk assessment. The course will focus on contemporary topics and methodology.

5373 Advanced Environmental Biotechnology
Pre-requisite(s): Two semesters each of university-level chemistry and biology; or consent of instructor.

Special applications of biotechnology in the areas of degradation and remediation of environmental contaminants; environmental implications of genetic engineering.

5376 Advanced Urban and Regional Comprehensive Environmental Planning
Seminar which examines the application of the principles and practices of comprehensive planning at the urban and regional levels emphasizing the implications of the natural environmental characteristics of an area while addressing the social, economic, and physical environmental needs of a community.

5377 Landscape Ecology (Cross-listed as BIO 5377)
See BIO 5377 for course information.

5379 Ecosystem Management
Pre-requisite(s): Graduate standing or permission of instructor.
A seminar in the application of ecological principles to the management of terrestrial, freshwater and marine communities and ecosystems. An overview for students from all environmental specialties with an emphasis on case histories.

5387 Advanced Environmental Chemistry
Pre-requisite(s): Four semesters of university-level chemistry; or consent of instructor.
Sources and implications of chemical pollution, cost/benefit analyses, chemical implications of alternative energy sources, waste minimization, recycling, and decontamination considerations.

5391 Measurement Methods and Data Analysis for Air Pollution Research
Pre-requisite(s): CHE 1301 and 1302; or AVS 4320 and 4330; or consent of instructor.
Measurement methods, such as spectroscopy, and statistical analysis used to characterize the chemical and physical properties of air to determine pollution levels and air quality. Fee: $100

5393 Atmospheric Chemistry and Physics (Cross-listed as AVS 5393)
Pre-requisite(s): CHE 1301 and 1302; or AVS 4320 and 4330; or consent of instructor.
Chemistry and physics of the troposphere and stratosphere, including photochemistry, chemical kenetics, aerosol formation, micrometerology, atmospheric modeling, and other advanced topics.

5404 Wetland Ecology and Management (Cross-listed as BIO 5404)
See BIO 5404 for course information.

5405 Stream Ecology (Cross-listed as BIO 5405)
See BIO 5405 for course information.

5413 Advanced Biological Data Analysis (Cross-listed as BIO 5413)
See BIO 5413 for course information.

5V52 Special Topics in Environmental Analysis 1 to 12 sem. hrs.
The course may be repeated depending on the combination of semester hours up to a maximum of twelve semester hours.

5V90 Graduate Environmental Practicum 1 to 3 sem. hrs.
Pre-requisite(s): Consent of instructor.
A practicum supervised by an environmental professional. May be salaried or volunteer. Requires one hundred fifty to one hundred sixty hours of work per semester hour. Students are required to complete three hours of ENV 5V90 for their degree requirements.

5V98 Graduate Research
Pre-requisite(s): Graduate standing.
Required of all graduate students. For research credit associated with graduate research. Credit will be given for the amount of work done. May be repeated for credit through 45 hours.

5V99 Research for Master's Thesis 1 to 6 sem. hrs.
The course is required to be repeated depending on the combination of semester hours up to a minimum of six semester hours.

6V98 Dissertation Proposal and Prospectus Research
Pre-requisite(s): Graduate standing.
For research credit, once coursework is completed, and prior to admission to candidacy for an advanced degree. May be repeated for credit up to 6 hours.

6V99 Dissertation **1 to 9 sem. hrs.**

Research, data analysis, writing, and oral defense of an approved doctoral dissertation on a research topic in Environmental Science. Student must have been Admitted to Candidacy before registering for dissertation hours.

FAMILY AND CONSUMER SCIENCES (FCS)

4367 Family Transitions, Stress, and Resilience

Pre-requisite(s): Upper level standing or consent of the instructor.

Current theory and models seeking to understand family transitions, stress, coping, adaptation, and resilience.

5365 Cancer Biology (cross-listed as BIO 5409)

See BIO 5409 for course description.

5V99 Thesis **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of instructor.

Supervised research for and writing and defense of the thesis.

FILM AND DIGITAL MEDIA (FDM)

4313 Diffusion of Innovations

Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

An introduction to old and emerging theories which explain the spread of innovative ideas and technologies among members of a society, emphasizing the role of communication processes and the special problems for diffusion in communication technology.

4314 Digital Media Technologies

Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

Analysis of the technical foundations of communication media, the interrelationships among the various media technologies, and the impact of these technologies on media management, content, distribution, and consumption.

4340 Media and Society

Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

Roles of the media in society and their relationship with other societal institutions. Impacts of the media upon society, responsibilities of the media, and restraints imposed upon them.

4341 Electronic Culture

Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

An examination of the issues at the intersection of modern media technology, philosophy, and contemporary culture.

4342 Art and the Moving Image

Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

An examination of the cinema as an art form in the context of other artistic media (such as painting, music, etc.).

4343 Film and Video Aesthetics: Theory and Criticism
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

The artistic potential of motion picture and television production, including major film theories, film and video criticism, and visual aesthetics. Dramatic narrative (fiction), documentary (non-fiction), and non-narrative subjects will be analyzed.

4347 Communication and Culture
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

An examination of the reciprocal functions of communication and urban culture as they continue to shape and define each other. Specific areas of inquiry vary each semester. May be repeated once with a different topic (maximum six semester hours).

4361 Audio Production
Pre-requisite(s): FDM 3361 or consent of instructor. Not open to pre-Film and Digital Media students.

Advanced audio techniques for media productions, technical and conceptual aspects of sound design. Emphasis on sound/image relationships in film and video, and the interface between traditional analog and digital audio technologies. Includes recording, editing, and mixing of audio sources in the creation of original sound tracks. Fee: $110

4362 Short Film Production
Pre-requisite(s): FDM 3361. Not open to pre-Film and Digital Media majors.

Advanced short narrative digital cinema production with emphasis on storytelling, theme, and mise-en-scene. Fee: $115

4363 Advanced Digital Production
Pre-requisite(s): FDM 3361, FDM 4365, and consent of instructor. Not open to pre-Film and Digital Media majors.

Develops proficiency in producing, directing, and editing of advanced digital content using single camera and multi-camera studio techniques. Covers pre-visualization, visual effects compositing, digital audio, and postproduction. Emphasis on bringing ideas from conception to realization in a professional setting. Fee: $170

4364 Interactive Media
Pre-requisite(s): FDM 3361 or consent of instructor. Not open to Pre-Film and Digital Media students.

Interactive media elements and authoring systems, emphasizing the integration of computer technology in the development of interactive media messages. Fee: $115

4365 Lighting and Cinematography
Pre-requisite(s): FDM 3361 or consent of instructor. Not open to Pre-Film and Digital Media students.

Advanced film and video production with emphasis on the techniques, equipment, and theories involved in lighting and cinematography. Emphasis on the role of the cinematographer or director of photography.

4366 Post Production
Pre-requisite(s): FDM 3361 or consent of instructor. Not open to Pre-Film and Digital Media students.

Advanced film and video production with emphasis on the techniques, equipment, and theories involved in editing film and video. Emphasis on the use of computer-based non-linear editing systems. Fee: $110

4367 Film and Video Direction
Pre-requisite(s): FDM 3361 or consent of instructor. Not open to Pre-Film and Digital Media students.

In-depth investigation into the history, theory, and basic concepts of film and video direction; script preparation; story-boarding; blocking actors and staging the camera; sound; and editing. Projects include directing and shooting short videos. Fee: $85

4369 Producing
Pre-requisite(s): Upper level standing or permission of instructor. Not open to Pre-Film and Digital Media students.

Current film and television industry practices, including analysis of literary material, industry structure and economics, pitching, deal-making, and distribution.

4373 Advanced Screenwriting
Pre-requisite(s): FDM 3373 or permission of instructor. Not open to Pre-Film and Digital Media students.

Workshop course for advanced writers of narrative fiction screenplays emphasizing discussion of student work.

4380 Topics in Media History
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

In-depth investigation of important historical eras in the development of various media, for example, cinema, television, radio, and gaming. May be repeated twice under different topic not to exceed nine credit hours.

4381 Topics in Media Management and Technology
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

Examines media management issues and the impact of technological innovations on a wide range of media industries including broadcasting, Internet, telecommunication, cable, satellite, video game, and digital cinema. May be repeated twice under different topics, not to exceed nine credit hours.

4382 Topics in Media Storytelling
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

Examines a selected topic in film, television, radio/audio, games, or other form of digital media storytelling. May be repeated twice under different topics, not to exceed nine credit hours.

4384 Topics in National Media
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

An aesthetic, cultural, and/or historical examination of a selected national mass medium, for example, Japanese Cinema, British Television, or French New Wave Cinema. Focuses on directors, films/programs, movements, and cultural contests of national media. May be repeated twice under different topics not to exceed nine credit hours.

4388 Topics in Media Production
Pre-requisite(s): FDM 3361 or consent of instructor. Not open to Pre-Film and Digital Media students.

Advanced media production with emphasis on one particular aspect of production. Topics covered may include cinematography, experimental film or video collaborative projects, documentary, studio drama, narrative, and other topics. May be repeated twice under different topics not to exceed nine credit hours. Fee: $160

4396 Topics in Media Genres
Pre-requisite(s): Upper-level standing or consent of instructor. Not open to Pre-Film and Digital Media students.

An analysis of major media genres (in film, television, gaming, and other media). Methodological issues in genre criticism will also be addressed. May be repeated twice under different topics not to exceed nine credit hours.

4397 Topics in Contemporary Cinema
Pre-requisite(s): Upper-level standing. Not open to Pre-Film and Digital Media students.

An academic examination of current cinema. Topics covered may include contemporary world cinema, contemporary American cinema, artists/directors, philosophy, history and other topics. May be repeated once with a different topic.

4V03 Internship in Electronic and Film Media 1 to 3 sem. hrs.
Pre-requisite(s): Undergraduate: fifteen hours in major; graduate: consent of graduate director. Not open to Pre-Film and Digital Media students.

Designed to fit the needs and interests of the individual student. Interns may select activities in a broadcast station or network, wire service, film production hours, corporate communications department, advertising agency, or in other appropriate organizations. Internships must be approved by the division director (undergraduate) or graduate director (graduate) and are carried out under the supervision of the division director. May be repeated for a total of six semester hours provided the professional setting is different. Graduate students will be limited to three hours credit.

4V98 Electronic and Film Media Workshop 3 to 6 sem. hrs.
Pre-requisite(s): Consent of instructor. Not open to Pre-Film and Digital Media students.

A directed project to a detailed individual or group radio, television, or film production including preproduction, research and concept development, production, post production, and planning for distribution. May be repeated once in a different semester for a total of six semester hours. Fee: $125

5303 Internship in Film & Digital Media
Pre-requisite(s): Consent of instructor.

Provides graduate students the opportunity for application of film & digital media skills and knowledge carried out under the supervision of a professional employer in a media-related organization.

5336 Seminar in Film and Electronic Media

Selected topics in the film or electronic media. Topics may be chosen from the following: mass communication theory, film or broadcasting history, media effects, media regulation, new communication technologies, and political communication. May be repeated once with a different topic.

5346 Seminar in Corporate Telecommunication

Selected topics in corporate telecommunication. Topics may be chosen from the following: telecommunication management, training and development, diffusion of innovations, and impact analysis. May be repeated once with a different topic.

5356 Seminar in Media Aesthetics and Criticism

Selected topics in media aesthetic criticism. Topics may be chosen from the following: film theory, semiotic analysis, visual literacy, and approaches to film criticism (i.e., cinema). May be repeated once with a different topic.

5366 Graduate Production Workshop
Pre-requisite(s): Consent of instructor.

Advanced production-oriented workshop with emphasis on enabling students to practice their craft and work towards completion of festival-worthy productions. Particular emphasis on preproduction, research and concept development, production, and post-production. May be repeated once in a different semester for a total of six semester hours. Fee: $125

5376 Contemporary Film Theory

Major issues and concepts that have been taken up by film theorists and critics in the years following World War II, with particular concentration on cultural studies, ideological criticism, race, gender, politics, spectatorship, and new digital technologies.

5V35 Problems in Film and Digital Media **1 to 6 sem. hrs.**

Designed to give individual students opportunities for additional work in their area of concentration in film and digital media. May be repeated in a different semester for up to a total of six semester hours.

5V90 Professional Paper or Project in Film & Digital Media **1 to 3 sem. hrs.**

Satisfies the non-thesis option for the Master of Communication Studies. Under the direction of a supervising professor, a student will select a problem or topic in film and digital media and will write a substantial paper or produce a substantial project for submission to the faculty. Maximum three credit hours.

5V99 Thesis **1 to 6 sem. hrs.**

Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of FDM 5V99 are required.

FINANCE (FIN)

5161 Corporate Finance-Planning

Pre-requisite(s): Admission to MBA program.

An introductory financial perspective to (1) why a publicly- traded firm exists and (2) what is the optimal approach for managing a publicly-traded firm. Comparisons are made between how privately-held firms and public-sector institutions are managed.

5162 Corporate Finance-Implementation

Pre-requisite(s): FIN 5161.

This one-hour module builds on the principles of optimal project selection introduced in FIN 5161. Usage of the Capital Asset Pricing Model for determining project rates is demonstrated. Both internal financing decisions (dividend decisions) and external financing decisions (debt vs. equity) are introduced.

5163 Financial Control

Pre-requisite(s): FIN 5162.

The concluding module on strategic Corporate Financial Management, exploring optimal strategies for financing the firm's projects. The theoretical linkage between the modern option pricing model, efficient capital markets, agency theory, and the theory of the firm is developed.

5186 Practicum in Small-Cap Investing II

Pre-requisite(s): Minimum grade of B- in FIN 5285.

This course gives students valuable hands-on experience researching, analyzing, and managing a portfolio of small-cap stocks. The level of security research and valuation analysis mirrors that experienced working in industry. Students are required to produce stock research reports and present their recommendations to the other analysts managing the investment fund.

5203 Business Foundations - Finance

Corequisite(s): BL 5104

This course is required for MBA and MSIS students who do not have an undergraduate degree in business from an AACSB-accredited institution. It provides students with a foundation in finance which is expected of all business graduate students.

5220 Private Equity Investing

Pre-requisite(s): Admission to the Executive MBA program.

The central focus of the course is to gain an understanding of the financing of entrepreneurial ventures, including ways investors identify and commit the necessary resources to create and finance ventures. To accomplish these objectives the course addresses specific skills, concepts, and know-how relevant for attracting private equity financing to an entrepreneurial venture.

5260 Financial Decision Making
Pre-requisite(s): Admission to the Executive MBA program.

A study of how firms create value for stockholders through long-term financial decisions, principally asset acquisition/divestiture decisions and debt/equity funding decisions. Specific topics include economic profit and cash flow, the time value of money, risk and return, options, agency, efficient markets, capital budgeting decision criteria, capital structure theory, and dividend policy theory.

5263 Managing for Value Creation
Pre-requisite(s): Admission to Executive MBA program.

In this course we construct simulation models for use in evaluating uncertain project outcomes; utilize the method of comparables and discounted cash flow to estimate the intrinsic worth of a firm; evaluate the real option components of risky investment projects; evaluate firm performance in terms of shareholder value created; analyze the shareholder wealth consequences of corporate restructuring activities including mergers, leveraged buyouts, leveraged recapitalizations and initial public offerings; and discuss the ethical implications of corporate restructuring activities.

5285 Practicum in Small-Cap Investing I
Pre-requisite(s): A select number of students will be admitted into the class through an application process. FIN 5365 or equivalent coursework/experience is expected before applying.

This course gives students valuable hands-on experience researching, analyzing, and managing a portfolio of small capitalization (small-cap) stocks by managing the fund. The level of security research and valuation analysis mirrors the experience working in the industry.

5329 Entrepreneurial Finance

Examines the intriguing process of financing the pursuit of opportunity and growth without regard to assets controlled currently. The major focus is on start-up or acquisition and the initial stages of growth. There is an emphasis on high-growth firms, and the central objective is to gain an understanding of how entrepreneurs obtain and use financial resources. The course also examines how value is created.

5330 Seminar in Real Estate Valuation

Valuation concepts and techniques necessary to appraise real estate. Topics include theoretical valuation models, regression-based models, the cost approach, market feasibility studies, and urban-growth models. Case studies require application of statistical techniques. Fee: $50

5331 Seminar in International Finance

A study of international financial management. Principal topics include issues in international business and finance; basic concepts, types, and issues of international financial markets; the mechanics of foreign exchange (FX) dealings and the effect of exchange rate fluctuations on corporate operations; currency derivatives and the implementation of FX risk hedging techniques; and short- and long-term financing decisions and risk management. With a focus on the enhancement of analytical skills based on the tools and theory of international finance, this course will promote critical thinking skills of the student.

5332 Seminar in Employee Benefit Planning

The rationale, design, implementation, and evaluation of employee benefit plans. Emphasis on employer-sponsored plans to provide benefits for death, medical and dental expenses, disability, and retirement; insurance and self-insurance funding arrangements; the taxation of employee benefits; legal requirements; integration with public programs and individually purchased insurance; labor union influences; and contemporary problems and issues. Consideration of new types of employee benefits, as well as such traditional benefits as paid vacations, sick leave, educational assistance, and other aspects of total compensation. Case studies are used to illustrate the process of balancing employer objectives, employee needs and desires and cost considerations. Fee: $50

5333 Foreign Exchange Markets and International Monetary Institutions (Cross-listed as ECO 5333)

See ECO 5333 for course information.

5335 Seminar in Integrated Business Risk Management

A study of business risk management, recognizing the relationship between risk management and the overall goals of the firm, through an integrated approach that combines the concepts and tools from both the insurance and the financial risk management disciplines. Emphasis is placed on the identification, evaluation, and management of corporate risks, defined broadly to include both operating and financial risks. Specific topics include traditional hedging strategies as well as techniques such as leveraging, post-loss financing, contingent financing, and diversification.

5360 Seminar in Corporate Finance (Cross-listed as ECO 5360)

Pre-requisite(s): Admission to the MACC or MTAX program, or consent of instructor.

A study of how firms create value for stockholders through long-term financial decisions, principally asset acquisition/divestiture decisions and debt/equity funding decisions. Specific topics include economic profit and cash flow, the time value of money, risk and return, options, agency, efficient markets, capital budgeting decision criteria, capital structure theory, and dividend policy theory.

5362 Seminar in Corporate Short-term Financial Management (Cross-listed as ECO 5362)

This course covers the short-term financial management functions and responsibilities typical of a Corporate Treasurer. Areas covered include cash and liquidity positioning, credit extension and collections, payables management, bank relations, short-term investing and borrowing, and management of interest rate and foreign exchange risks, all with a focus on current business practices. Lectures and readings are reinforced with individual and group projects and cases. The class will also provide partial preparation for students wishing to take the Certified Treasury Professional (CTP) exam.

5363 Seminar in Mergers and Acquisitions (Cross-listed as ENT 5363)

The merger and acquisition phenomenon, both domestic and international. The course focuses on the economic rationale for a merger from the perspective of the various "stakeholders," particularly from the view of shareholders. Significant attention is given to valuing a merger prospect as well as to determining how the "deal" is structured financially. Lectures are supplemented with group projects and cases. Fee: $50

5365 Investment Management (Cross-listed as ECO 5365)

Theory and practice of portfolio investment with emphasis on stocks, bonds, and portfolio management. Major topics include portfolio theory, performance evaluation, market efficiency, equity and bond management strategies, the use of derivative securities in portfolio management, and mutual funds. Current readings and cases supplement the text.

5367 Seminar in Financial Planning

Personal financial planning, incorporating material from investments, insurance, retirement benefits, taxation, and estate planning into a coordinated financial planning process. Case analysis is used to demonstrate the complexities involved in solving financial planning situations. Formulation of financial plans and counseling techniques are also examined.

5368 Seminar in Financial Markets (Cross-listed as ECO 5368)

U.S. money and capital markets, including international money markets, financial institutions, fixed-income analysis and management, bank funds management, options, futures, options on futures, investment banking, and mergers and acquisitions. Special emphasis is given to the management of interest rate risk in financial institutions. Fee: $50

5370 Management of Financial Institutions (Cross-listed as ECO 5370)

A study of the major issues involved in managing financial institutions. Principal topics include the role of financial institutions as intermediaries between providers and users of investment funds; financial performance of such institutions; loan management, commercial credit analysis, and loan pricing; liquidity and reserve management; investment management; capital structure, liability management, and the cost of funds; and asset/liability management. The regulatory environment for financial institutions is also examined. Lectures and readings are supplemented with group projects and presentations.

5380 Healthcare Finance (Cross-listed as HPA 5380)
See HPA 5380 for course information.

5381 Practicum in Portfolio Management
Pre-requisite(s): FIN 5365 or equivalent, and consent of instructor.
This practicum gives students valuable hands-on experience in securities research, valuation of risky assets, and asset allocation by managing the Philip M. Dorr and Alumni Endowed Investment Fund. Through readings and student-prepared research reports students develop skills in evaluating economic, industry, and firm data; integrating such data into securities analysis; and communicating their research results to others.

5460 Fundamentals of Applied Business Finance
An introductory course in the theory and principles of finance, which include planning and controlling functions (time value of money, pro forma budgeting, ratio analysis), balance sheet management (working capital budgeting, debt & equity financing), and cost management (cost classification allocation, break even & variance analysis), among other topics. This is an applied course that focuses less on the theoretical (textbook) concepts and more on practical tools that will be useful in the student's professional endeavors.

5V97 Special Studies in Real Estate **1 to 6 sem. hrs.**
This course may be taken for one to six semester hours of credit.

5V98 Special Studies in Finance **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor.
This course may be taken for one to six semester hours of credit. Fee: $50

5V99 Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor. Fee: $50

FORENSIC SCIENCE (FORS)

4355 Forensic Anthropology (Cross-listed as ANT 4355)
See ANT 4355 for course information.

FRENCH (FRE)

5370 French for Graduate Students I
Reading of intermediate-level French texts. No previous language experience required. Limited to graduate students or to undergraduates by petition. Does not count toward foreign language requirement for undergraduate students.

5371 French for Graduate Students II
Pre-requisite(s): FRE 5370 or consent of instructor.
Continuation of FRE 5370. Reading of intermediate-level French texts. No previous language experience required. Limited to graduate students or to undergraduates by petition. Does not count toward foreign language requirement for undergraduate students.

GEOLOGY (GEO)

4312 Oceanography

Physical, chemical, biological, and geological aspects of the oceans with special emphasis on the direct and indirect relationships of humans to the oceans. Such topics as mining the sea and its floor, farming the seas, and influence of the oceans on weather are included. Field trips and laboratory exercises. May not be taken for credit if GEO 1402 has been taken. Fee: $50

4313 Astronomy

A brief history of astronomy developments followed by a survey of the dimensions, motions, and interrelationships of bodies in our solar system. Additional emphasis is given to galaxies, stellar evolution, and cosmology. (2-1) Fee: $50

4314 Meteorology

Pre-requisite(s): Upper-level standing or consent of instructor.

Composition of the atmosphere, atmospheric processes, weather disturbances, and climate elements and controls. Emphasis is placed on climate classification and measurements of human inputs into the atmosphere. Fee: $50

4322 Global Biogeochemical Cycles

Pre-requisite(s): CHE 1301, 1302, 1101, 1102; and BIO 1403; and GEO 1405 and 3427.

The chemistry of the earth's surface. Emphasis on the dynamic chemical and biological reactions on land, in the oceans, and in the atmosphere and their influence upon the global budgets and cycling of carbon, nitrogen, oxygen, and sulfur. Includes field trips.

4325 Economic Mineral Deposits

Pre-requisite(s): GEO 3427 and 3445.

Non-hydrocarbon economic mineral deposits. Origin and migration of ore-bearing fluids; mineralogy and geometry of ore bodies; relations of ore deposits to magnetism and tectonics. Field trip to Central Texas mining district. Fee: $50

4328 Sedimentary Petrology

Pre-requisite(s): GEO 3427 and 3435 or consent of instructor.

Microscopic and field characteristics of sedimentary rocks. Emphasis on interpretation of depositional and diagenetic environments and relationships between geometry of rock bodies and sedimentary processes. Fee: $50

4331 Evolutionary History of Plants

Pre-requisite(s): GEO 1406, or BIO 1305 and 1306; and consent of instructor.

The evolutionary history of plants as studied through the fossil record, including preservation, plant morphology and anatomy, and techniques used to reconstruct paleoenvironment and paleoecology. Weekly labs, with one weekend field trip. Fee: $50

4335 Volcanology

Pre-requisite(s): Consent of instructor.

Analysis of volcanic ejecta. Mechanisms of lava and pyroclastic eruptions. Geomorphological analysis of volcanic land forms. History of volcanological studies and case studies of well-known volcanoes. Field trips. Fee: $50

4336 Analytical Techniques in Geochemistry

Pre-requisite(s): GEO 3427.

Principles and practice of X-ray fluorescence and electron probe analysis of geologic materials. Includes extensive laboratory work. (2-2) Fee: $50

4337 Paleoecology
Pre-requisite(s): GEO 3435 or consent of instructor.
Relationship of fossil plants and animals to their physical and biological environment. Examination of principles of paleosynecology and paleoautecology; data gathering, analysis, and techniques of interpretation. (2-2) Fee: $50

4339 Advanced Marine Field Studies (Cross-listed as BIO 4339)
Pre-requisite(s): GEO 3341 or 5333 or BIO 3341.
Continuation of GEO 3341/5333. Field examination of marine environments. Individual research projects emphasize biology and geology of carbonate depositional regimes. Fee: $50

4340 Geomorphology
Pre-requisite(s): Upper-level standing.
Development and modification of land-surface forms by atmospheric, fluvial, glacial, mass-wasting, volcanic, and tectonic agents. Emphasis is placed on the spatial aspects of landscape evolution. Fee: $50

4341 Introduction to Hydrology
Pre-requisite(s): Consent of instructor.
Basic applied techniques in surface and ground water hydrology. Surface water hydrology will incorporate analysis of precipitation records, runoff processes, and calculation of flood hazard. Ground water hydrology will emphasize hydrogeology techniques, including simple models of ground water movement. Fee: $75

4345 Water Management (Cross-listed as ENV 4345)
See ENV 4345 for course information.

4346 Hydrogeology
Pre-requisite(s): GEO 3342 and 3445.
Hydrogeology (ground water hydrology) for geologists and engineers. Topics to be covered include evaporation and precipitation, soil moisture, principles of ground water flow, regional ground water flow, geology of ground water occurrence, flow to wells, ground water chemistry, and ground water development and management. (2-1) Fee: $75

4348 Geoarchaeology (Cross-listed as ANT 4348)
Pre-requisite(s): Upper-level standing or consent of instructor.
Concepts and methods of the geosciences applied to solving archaeological problems. Emphasis on stratigraphy, soils, climate, dating techniques, site formation, and site preservation related to both New World and Old-World archaeology. Fee: $50

4371 Wetlands (Cross-listed as ENV 4371)
Pre-requisite(s): Upper-level standing or consent of instructor.
Theory and application of the wetland concepts: classification, hydrology, biochemistry, soils, vegetation, construction, regulation, and delineation. Field lab. Fee: $50

4373 Global Soil Systems (Cross-listed as ENV 4374)
Fundamentals of soil genesis, classification, geomorphology, ecosystems, and environmental interpretation. Includes the role of soil biogeochemical cycles in past, current, and future global change issues. Field lab. Fee: $50

4375 Natural Landscape Evaluation and Planning (Cross-listed as ENV 4375)
Recognition of natural features that affect human uses. Evaluation of natural landscapes on a scale from complete preservation to full development. Experience in urban landscapes. Includes one or more Saturday field trips.

4386 Remote Sensing (Cross-listed as AVS 4386, BIO 4386, ENV 4386)
Pre-requisite(s): Consent of instructor.
Physical mechanisms of surface and atmospheric materials absorption, transmittance,

reflection, and emittance of light measured by various remote sensing platforms. Survey various applications related to earth science, ecology, meteorology, and environmental science. Fee: $50

4389 Quaternary Geology
Pre-requisite(s): GEOG 1404, GEO 1405, 1406, or 1408; or consent of instructor; and upper-level standing.

An examination through morphologic, stratigraphic, and biogeochemical proxy data of the nature of earth environments, focusing on the three most important components: Quaternary stratigraphies, Quaternary chronologies, and Quaternary environmental proxies and their interpretation. Fee: $50

4453 Advanced Three-Dimensional Seismic Interpretation
Pre-requisite(s): GEO 4458 or consent of instructor.

Techniques used to extract geological information from three-dimensional seismic reflection data. Laboratory emphasizing interpretation of real data sets, integration of other geologic and geophysical data, and construction of subsurface maps and sections. Fee: $50

4455 Introduction to Seismology
Pre-requisite(s): PHY 1420, MTH 2321, and upper-level standing or consent of instructor.

Theory of wave propagation in the Earth, earthquake mechanics, Earth structure, interpretation of seismograms, faults, seismotectonics, earthquake locations, magnitudes, and focal mechanisms. Fee: $50

4457 Geophysical Exploration I
Pre-requisite(s): GEO 3342 and 3445 and consent of instructor.

Exploration geophysics, using gravity, magnetics, heat flow, telluric currents, resistivity, and other methods of remote sensing of hidden geological phenomena exclusive of seismic exploration. Laboratory work will emphasize geological interpretation of geophysical data. Fee: $50

4458 Geophysical Exploration II
Pre-requisite(s): GEO 3342 and 3445; and consent of instructor.

Exploration geophysics, using latest seismic techniques and well-log analyses, with emphasis on petroleum exploration. Fee: $60

4459 Engineering Geology
Pre-requisite(s): Consent of instructor.

Soil and rock mechanics. Analysis of geotechnical problems in the field and lab, report preparation, and computer evaluation of geotechnical problems. (3-4) Fee: $50

4485 Introduction to Geographic Information Systems (Cross-listed as AVS 4485, ENV 4485)

The course covers the use of GIS to acquire primary geographic data, solve geographic problems, automate geographic analysis, and render explanations for geographic patterns and trends. Students will use the latest GIS software and data layers in a lab section. Fee $50.

4487 Advanced GIS Analysis (Cross-listed as AVS 4487, ENV 4487)

Principles and techniques for geospatial data collection, manipulation, modeling, visualization, and analysis. Emphasis is placed on current raster modeling techniques, spatial statistical analysis methods, and using GIS as a predictive tool for environmental research. Fee: $50

5050 Geology Technical Sessions

A forum for: (a) outside speakers, (b) presentation of student research, (c) discussion of current geologic and geophysical literature, and (d) guidance in thesis preparation. May be repeated as required by the department. M.S. and M.A. students must attend at least four semesters. Ph.D. candidates must attend while in residence.

5110 History of Geology
Pre-requisite(s): Consent of the department.
Evolution of geological thought. Required, or its equivalent, of all M.S., M.A., and Ph.D. candidates. Fee: $50

5252 Seismic Stratigraphy
Interpretation of seismic data for the purpose of inferring stratigraphic changes and depositional environments. Fee: $50

5308 Advanced Studies in Earth Science
Pre-requisite(s): Consent of instructor
Special topics in earth science. May be repeated once with change of content. Fee: $50

5314 Advanced Topics in Paleoclimatology
Special topics in paleoclimatology, including discussions of climate change events in earth history and methods for reconstructing ancient climates including paleoclimate proxies and general circulation models. May be repeated once with change of topic. Fee: $50

5315 Clastic/Carbonate Depositional Systems
Pre-requisite(s): GEO 4328 and 3342.
Criteria for the recognition of clastic and carbonate depositional environments. Fee: $50

5318 Advanced Studies in Geophysics
Pre-requisite(s): Consent of instructor.
Special topics in geophysics. May be repeated with change of content. Fee: $50

5320 Geochemistry
Pre-requisite(s): GEO 3342, 3445 and CHE 1302.
Advanced standing in geology. Application of isotope geochemistry, thermodynamics, and phase equilibrium studies to the solution of geological problems. Fee: $50

5321 Isotope Geochemistry
Pre-requisite(s): Consent of instructor.
Theory and application of stable and radioactive isotopes in geology with particular emphasis on the use of stable isotopes in solving environmental and hydrogeologic problems. Fee: $50

5322 Organic Geochemistry
Pre-requisite(s): CHE 1301 and 1101, 1302 and 1102.
Investigate the chemical composition of organic matter in soils, sediments, and petroleum source rocks. Interpretation of biomarkers and molecular proxies. The course includes an intensive review of the requisite organic chemistry concepts and nomenclature.

5325 Advanced Studies in Geochemistry-Petrology
Pre-requisite(s): Consent of instructor.
Special topics in geochemistry-petrology. May be repeated with change of content. Fee: $50

5329 Igneous Petrology
Pre-requisite(s): GEO 3427 and graduate standing.
Intensive examination of igneous rocks. Format and subject material will vary from year to year but will include descriptive and genetic aspects of igneous rocks and their relationships to tectonic settings. Laboratory and field trips. Fee: $50

5331 Field Geology for Earth Scientists I
Pre-requisite(s): Consent of instructor.
Field experience in the American West. Designed with exercises to acquaint graduate earth science majors with the fundamentals of field geology. Offered in the field during summer sessions for three hours of credit. Fee: $125

5332 Field Geology for Earth Scientists II
Pre-requisite(s): Consent of instructor.
Continuation of GEO 5331. Offered in the field during summer sessions for three hours of credit. Fee: $125

5333 Modern/Ancient Depositional Environments I
Pre-requisite(s): Consent of instructor.
Field study of depositional systems and facies. Course participants will examine modern depositional environments varying from fluvial, deltaic, beach, and near shore systems to modern barrier and fringing reefs along the Gulf and Atlantic coasts and in the Caribbean. These depositional environments will be used to interpret ancient sedimentary facies examined in the field during the last portion of the course. Offered in the field during summer session for three hours of credit. Fee: $125

5334 Modern/Ancient Depositional Environments II
Pre-requisite(s): Consent of instructor.
Continuation of GEO 5333. Offered in the field during the summer session for three hours of credit. Fee: $125

5335 Principles of Micropaleontology
Pre-requisite(s): GEO 3435.
Taxonomy, morphology, evolution, paleoecology, and stratigraphic occurrence of important microfossils. Independent field and laboratory problems may be required. (1-4) Fee: $50

5337 Advanced Studies in Remote Sensing Geomorphology
Pre-requisite(s): Consent of instructor.
Special topics in remote sensing and geomorphology. May be repeated with change of content. Fee: $50

5338 Advanced Studies in Paleontology
Pre-requisite(s): Consent of instructor.
Special topics in paleontology. May be repeated with change of content. Fee: $50

5339 Sandstone Petrology
Pre-requisite(s): GEO 4328 and graduate standing.
Petrography of clastic sedimentary rocks. Includes mineralogical study, provenance analysis, and diagenetic interpretation. Field trips. Fee: $50

5340 Paleopedology
Pre-requisite(s): Undergraduate mineralogy, stratigraphy, and general chemistry; or consent of instructor.
Field, microscopic, and geochemical analysis of fossil soils (paleosols) and comparison with modern analog soils; interpretation of changes in paleoweathering processes, paleoclimate, and paleoatmospheric chemistry over 4.6 billion years of earth history based on paleosols. Fee: $50

5341 Cordilleran Tectonics
Pre-requisite(s): GEO 3445 and consent of instructor.
Geologic history of the North American Cordillera from Precambrian to present, based on analysis of stratigraphic, structural, paleomagnetic, and paleobiogeographic constraints. Fee: $50

5342 Micromorphology of Soils and Paleosols
Pre-requisite(s): Undergraduate mineralogy, optical mineralogy, or consent of instructor.
The description, interpretation, and measurement of components, features, and fabrics in soils and paleosols, at the microscopic level. Fee: $50

5343 Advanced Field Sequence Stratigraphy
Concepts of facies analysis and spatial prediction are presented within a sequence stratigraphic context. The course is conducted as a three-week field excursion to various locations within the

southwestern USA. The course emphasizes both outcrop and subsurface problem solving and is supplemented by extensive literature review. Fee: $200

5344 Field Structural Geology I

Instruction in advanced and specialized methods of structural analysis applied to a variety of problems in structural geology. Both local and regional structural relationships will be studied. Location of field study areas will be determined by instructor. Fee: $125

5345 Advanced Sequence Stratigraphic Concepts

Pre-requisite(s): GEO 3342 or equivalent transfer credit.

Instruction in the controls on sediment accumulation and distribution through time, and strategies for local and regional cyclostratigraphic correlation and associated stratal classification and interpretation. Fee: $50

5347 Advanced Hydrogeology

Pre-requisite(s): GEO 4346 or consent of instructor.

Analytical techniques and concepts necessary for hydrogeologic research and problem solving. Areas of emphasis will include field methods, well hydraulics, and computer models of ground water systems. Occasional field trips will be required as part of the laboratory. Fee: $50

5348 Applied Ground Water Modeling

Pre-requisite(s): GEO 5347.

Lectures on the theory of analytical and numerical models applied to hydrogeological research. Laboratory exercises will involve solving hydrogeological problems, using the models discussed in lecture. Fee: $50

5349 Urban Geology

Interrelationships between geological processes and urban development. Case histories and applied field projects will be examined in surrounding urban areas. Fee: $50

5350 Geostatistics

Advanced topics in spatial statistics. Knowledge of basic statistics is expected (e.g., calculation of mean, variance, and covariance). Fundamentals of variograms. Methodologies for best linear unbiased estimates with and without drift of the mean value. Major elements and applications of Kriging and coKriging algorithms.

5368 Advanced Studies in Sedimentary Geology

Pre-requisite(s): Consent of instructor.

Special topics in sedimentary geology. May be repeated once with change of content. Fee: $50

5369 Advanced Studies in Petroleum Geology

Pre-requisite(s): Consent of instructor.

Special topics in petroleum geology. May be repeated with change of content. Fee: $50

5377 Advanced Studies in Structural Geology-Tectonics

Pre-requisite(s): Consent of instructor.

Special topics in structural geology-tectonics. May be repeated with change of content. Fee: $50

5378 Advanced Studies in Hydrogeology

Pre-requisite(s): Consent of instructor.

Special topics in hydrogeology. May be repeated with change of content. Fee: $50

5388 Advanced Studies in Hydrology-Engineering Geology

Pre-requisite(s): Consent of instructor.

Special topics in hydrology-engineering geology. May be repeated with change of content. Fee: $50

5389 Earth System Science
Pre-requisite(s): Geology, geography, biology, archaeology, or environmental studies graduate students only; or consent of instructor.

The emphasis of this course is placed on climate changes and the associated environmental variations of different timescales and their forcing mechanisms (including human impacts). Defining the current climatic dynamics and predicting the future trends, based on the changing patterns of different timescales, are the concluding parts of this course. Fee: $50

5398 Advanced Studies in Environmental-Urban Geology
Pre-requisite(s): Consent of instructor.

Special topics in environmental-urban geology. May be repeated once with change of content. Fee: $50

5457 Gravity, Magnetic, and Electrical Exploration

Theory and applications of gravitational, magnetic, and electrical techniques to subsurface exploration. Fee: $50

5458 Seismic Exploration

Seismic refraction and reflection techniques and their application to determining Earth structure. Fee: $50

5459 Seismic Data Analysis
Pre-requisite(s): GEO 4455 (Introduction to Seismology) or consent of instructor.

Topics chosen from earthquake location, focal mechanism computation, surface wave dispersion measurement, 1D inversion techniques, regional tomographic inversion, receiver functions, ray theory in spherical geometry, seismic attenuation, seismic anisotropy, seismic focusing, reflected phases, stacking, and interpretations of seismic results in light of other geophysical constraints. Fee: $50

5465 Petroleum Geology
Pre-requisite(s): GEO 3442 and 3445

Origin, migration, and accumulation of petroleum. Exploration and production methods for hydrocarbon recovery. Fee: $50

5656 Application of Geophysics to Environmental Engineering Problems
Pre-requisite(s): Graduate standing.

A field course in which seismic, gravity, magnetic, electrical, electromagnetic, well logging and ground penetrating radar techniques are used to solve problems associated with waste disposal, groundwater, and engineering characterizations. Fee: $125

5V90 Special Problems in Geology **1 to 5 sem. hrs.**
Pre-requisite(s): Staff approval required.

Individual course in which students solve a geologic problem and submit a written report. Staff approval required. Fee: $50

5V99 Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Staff consent required.

Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of GEO 5V99 are required.

6V99 Dissertation **1 to 12 sem. hrs.**
Pre-requisite(s): Staff consent required.

Required of all doctoral candidates. In no case will less than twelve semester hours be accepted for a dissertation. Students may not enroll for dissertation hours until they have been officially accepted into candidacy for the Ph.D. degree. After initial enrollment, students must enroll for at least one semester hour of dissertation every semester (summer semester excluded).

GERMAN (GER)

5370 German for Graduate Students I

Reading of intermediate-level German texts. No previous language experience required. Limited to graduate students or to undergraduates by petition. Does not count toward foreign language requirement for undergraduate students.

5371 German for Graduate Students II

Pre-requisite(s): GER 5370 or consent of instructor.

Continuation of GER 5370. Reading of intermediate-level German texts. No previous language experience required. Limited to graduate students or to undergraduates by petition. Does not count toward foreign language requirement for undergraduate students.

GERONTOLOGY (GRT)

4393 Sociology of Aging (Cross-listed as SWO 4393 and SOC 4393)

See SWO 4393 for course information.

4395 Aging and Mental Health (Cross-listed as SWO 4395 and SOC 4395)

See SWO 4395 for course information.

5351 Nutrition and Aging (Cross-listed as NUTR 5351)

See NUTR 5351 for course information.

GREAT TEXTS (GTX)

4V99 Special Topics in Great Texts **1 to 3 sem. hrs.**

Pre-requisite(s): Upper-level standing or consent of instructor.

Research projects to be undertaken by students or by classes under the direct supervision of the professor. Course may be repeated twice with a different topic of study.

GREEK (GKB)

4308 Greek Prose Composition (Cross-listed as GKC 4308)

See GKC 4308 for course information.

5317 Seminar in New Testament Greek (Cross-listed as REL 5317)

See REL 5317 for course information.

GREEK (GKC)

4301 Readings from Greek Literature

Pre-requisite(s): Consent of instructor.

Readings from Greek authors including either Classical authors or portions of the New Testament, and related background texts. With content changed, this course may be repeated up to a total of nine semester hours.

4305 Plato: Selected Writings
Pre-requisite(s): GKC 2310 and 2320 or consent of instructor.
Selected readings in Greek from the writings of Plato. With content changed, this course may be repeated up to a total of six semester hours.

4306 Aristotle: Selected Writings
Pre-requisite(s): GKC 2310 and 2320 or consent of instructor.
Selected readings in Greek from the writings of Aristotle. With content changed, this course may be repeated up to a total of six semester hours.

4307 Readings in Attic Oratory
Pre-requisite(s): GKC 2310 and 2320.
Selections from representative Greek orators, such as Antiphon, Andocides, Lysias, Isocrates and Isaeus.

4308 Greek Prose Composition (Cross-listed as GKB 4308)
Pre-requisite(s): GKC 2310 and 2320, or GKB 2310 and 2320.
Translation of English text into classical Greek.

4309 The Gods of the Greeks
Pre-requisite(s): GKC 2310 and 2320 or consent of instructor; and upper-level standing.
Selected readings in Greek from writings (e.g., Hesiod's Theogony and the Homeric Hymns) dealing with the gods of the Greeks.

4310 Stoics and Epicureans: Reading the Ancient Sources
Pre-requisite(s): GKC 2320 or consent of instructor.
Selected readings in Greek dealing with the Stoic and Epicurean philosophers and their respective philosophical systems.

5301 Greek Poetry
Representative works of ancient Greek poetry. May be taken five times, provided topics change.

5302 Greek Prose
Representative works of ancient Greek prose. May be taken five times, provided topics change.

5321 Greek Grammar for Reading Knowledge
Intensive study of Greek inflection and syntax. Helps fulfill graduate language proficiency requirement.

5322 Greek Prose for Reading Knowledge
Pre-requisite(s): GKC 5321.
Readings from Greek prose authors; review of syntax and inflection. Helps fulfill graduate language proficiency requirement.

HEALTH EDUCATION (HED)

5377 Principles and Philosophy in Health, Human Performance and Recreation
Bases of principles, the evolution of principles and philosophies, and the interpretation and application of principles to program development and conduct.

5V74 Professional Literature Seminar in Health, Human Performance and Recreation (Cross-listed as HP 5V74 and RLS 5V74) 1 to 6 sem. hrs.
See HP 5V74 for course information.

HEALTH SERVICES RESEARCH (HSR)

6220 Legal and Ethical Issues in Health Service Research
Pre-requisite(s): Enrollment in PhD program in Health Services Research or consent of instructor.

Legal and ethical principles related to conducting health services research and their implications. Health services research stages: design, funding and proposals, execution of health and health care delivery-related projects (including recruitment of study subjects, data acquisition) under Institutional Review Board approval and legal compliance. Production of meaningful results and their dissemination to stakeholders in the health care arena.

6310 Epidemiology and Evidence-Based Medicine in Health Services Research
Pre-requisite(s): Enrollment in PhD Program in Health Services Research or consent of instructor.

Epidemiologic principles and techniques relevant to the design and analysis of health services research epidemiologic studies. Epidemiologic concepts, methods and related basic biostatistical approaches required to conduct robust health services research.

6330 Economic Evaluation: Decision Analysis in Health Services Research
Pre-requisite(s): Enrollment in PhD program in Health Services Research or consent of instructor.

Application of economic evaluation methods when conducting health services research (HSR), including cost-effectiveness analysis (CEA), cost-benefit analysis (CBA), and cost-utility analysis (CUA). Economic evaluation, emphasizing identification of health care costs and outcomes measures, data sources, understanding of utility theory, quality of life measures, Bayes' Theorem, ROC curves, and development of Markov and simulation models in HSR.

6340 Experimental and Quasi-Experimental Design in Health Services Research
Pre-requisite(s): HSR 6330 or consent of instructor.

Experimental and quasi-experimental designs in health services research; randomization of treatments/interventions; explicit and implicit treatment. Internal validity and external validity. Application to real-world research with appropriate critique of articles.

6V00 Dissertation Proposal and Prospectus
Pre-requisite(s): Permission of Director of Health Services Research PhD program.

Research for doctoral students preparing their topic proposal or writing their prospectus in anticipation of candidacy.

6V90 Research Practicum in Health Services Research
Pre-requisite(s): Health Services Research PhD students only, and permission of instructor.

Research course for PhD students in Health Services Research. Must be taken twice as part of degree requirements. Only for doctoral students who have not yet been admitted to candidacy. Initiation and completion of an applied research project addressing a specific issue of relevance to a healthcare organization or an issue identified by the student's faculty research advisor.

6V98 Special Studies in Health Services Research
Pre-requisite(s): Permission of Director of Health Services Research PhD program.

Specialized study for PhD students in Health Services Research. May be taken more than once provided the content differs substantially from that of any prior offering of the course that the student has taken.

6V99 Dissertation
Pre-requisite(s): Permission of Director of Health Services Research PhD program.

Supervised research for the doctoral dissertation.

HEALTHCARE POLICY AND ADMINISTRATION (HPA)

5001 Executive Leadership in Healthcare Administration I
Pre-requisite(s): Enrollment in either MBA-Healthcare Administration Program or PhD Program in Health Services Research.
Presentation and discussion of leadership issues in healthcare administration. Fee: $50

5002 Executive Leadership in Healthcare Administration II
Pre-requisite(s): Enrollment in either MBA-Healthcare Administration Program or PhD Program in Health Services Research.
Presentation and discussion of leadership issues in healthcare administration. Fee: $50

5003 Executive Leadership in Healthcare Administration III
Pre-requisite(s): Enrollment in either MBA-Healthcare Administration Program or PhD Program in Health Services Research.
Presentation and discussion of leadership issues in healthcare administration.
Fee: $50

5105 Marketing for Healthcare Professionals
Co-requisite(s): MKT 5210.
Healthcare organizations face marketing challenges more complex than those faced by businesses in other industries. Patients are often physically and emotionally vulnerable, and frequently must make important decisions with incomplete information. Providers' performance outcomes depend on patient engagement, yet patients often grapple with conflicting goals. Third party pay structures distort pricing. Government is actively involved.

5120 Principles and Methods of Healthcare Delivery System Research
Pre-requisite(s): HPA 5310.
This course will prepare students for selection by a leading healthcare organization for a paid six-seven-month internship. Students will be provided guidance to help them successfully apply MBA core concepts in the dynamic healthcare industry environment. Students will also be afforded the opportunity to participate in an American College of Healthcare Executives (ACHE) competition with other university students and attend the annual ACHE educational conference in Chicago. Fee: $1000

5121 Current Issues in Healthcare Administration
Pre-requisite(s): HPA 5V90.
Current Issues in Healthcare Administration is designed to expose students to major US healthcare initiatives through a series of seminars led by leading healthcare executives. The Healthcare Administrative Residency will be a focus of discussion with students using site-specific information to evaluate health system strategies. Fee: $50

5125 Contemporary Issues in Healthcare
This course is designed to expose students to major contemporary US healthcare issues, initiatives, and reforms through a series of seminars.

5126 Social Issues in Healthcare Administration
Pre-requisite(s): HPA 5310.
Concepts and processes of social issues most directly applicable to the work of a healthcare executive. Speakers, field experiences, projects, readings and in-class discussions expose students to a variety of social and public health issues including end-of-life care, abuse, chaplaincy, long-term care, and disaster planning.

5130 Legal Issues in Healthcare
A study of the legal and regulatory environment related to healthcare law, including an introduction to the legal system, tort law, and liability of healthcare institutions. Covers relevant

topics such as fraud, antitrust, consent, federal reimbursement programs, medical records, and confidentiality with an analysis of relevant case law.

5150 Aligning IT Healthcare Enterprises

This course examines the evolution and past and current roles of technology (IT) in healthcare organizations, current trends in healthcare, and best practices to insure firms' ability to maximize the value achieved from IT investments.

5220 Healthcare Law: Application and Strategy

This course is a study of the application of healthcare related laws to managerial decisions and the relationship between legal and business strategy. It is designed to provide students with sufficient understanding to identify and manage legal and ethical issues in the healthcare industry.

5230 Healthcare Operations

A survey of medical operations and systems, designed for MBA executive students expanding their career and knowledge of operational management in healthcare organizations. Students will gain a basic understanding of the various healthcare models in the United States and their organizational financing, executive management, corporate oversight, and governance.

5250 Analysis of Healthcare Economic Conditions

Students will examine the health care delivery system and its implications for medical practice, education, research, and policy. Economic perspectives will be applied to public policy in health and medical care.

5280 Healthcare Financial Management

This course extends financial management principles such as time value analysis, risk & return, debt & equity financing, cost of capital, and capital budgeting to a healthcare context. Healthcare-specific topics will be the central themes of the course. The course will utilize a combination of learning techniques such as lectures and discussions.

5295 Healthcare Policy and Future Directions

The capstone course for the Executive MBA Healthcare Administration Specialization. Its objective is to amalgamate concepts students were taught throughout the program by exposing them to economic concepts as they apply to national healthcare policy issues.

5310 Healthcare Administration

Pre-requisite(s): Admission to MBA program.

A survey of the United States healthcare system, designed for MBA students pursuing careers in healthcare administration. Students will gain a basic understanding of the various healthcare models in the United States, their organization financing, executive management, and oversight. Students will also be challenged by healthcare executives in a series of leadership seminars -- one or more of which will take place in the context of visits to major health institutions in the United States. Fee: $800

5320 Marketing Strategy for Healthcare Professionals

Healthcare organizations face marketing challenges more complex than those faced by businesses in most other industries. This course explores ways that marketing frameworks can help healthcare leaders improve quality and access to care while reducing costs. Broad introduction to marketing concepts and decision making in the context of healthcare as well as other industries.

5330 Healthcare Law and Ethics

Pre-requisite(s): Admission to MBA program.

A study of the legal and regulatory environment related to healthcare law, including an introduction to the legal system, tort law, and liability of healthcare institutions for administrators or executives. Covers additional reimbursement programs, medical records, and confidentiality relevant topics such as fraud, antitrust, consent, federal reimbursement programs, medical records, and confidentiality with an analysis of relevant case law. It will also help students prepare to enter their

internship with the ethical and legal knowledge necessary to perform safely in an active healthcare organization.

5350 Health Economics (Cross-listed as ECO 5350)
See ECO 5350 for course information.

5367 Managerial Epidemiology (Cross-listed as STA 5367)
This course presents the basic principles of epidemiology with particular emphasis on applications in healthcare management. Topics include specific tools of epidemiology used for purposes of planning, monitoring, and evaluating population health. These include identification and of disease, measures of incidence and prevalence, study designs, confidence intervals, p-values, statistical interaction, causal inference, and survival analysis. Methods for managing the health of populations using an understanding of the factors that influence population health are discussed. Strategies that health care organizations and systems can use to control these factors are also considered.

5380 Healthcare Finance (Cross-listed as FIN 5380)
Pre-requisite(s): FIN 5161.
This course extends financial principles to healthcare markets, including accounting statements for healthcare institutions as sources of information, and analysis of third party payment systems as sources of funds. Decision making tools through spreadsheet analysis is emphasized.

5395 U.S. Healthcare Directions
Pre-requisite(s): HPA 5V90.
U.S. Healthcare Directions is the capstone course for the MBA Healthcare Administration Specialization. Its focus is to appraise and evaluate concepts students were taught in both the didactic and residency elements of the program and interpret them in support of the great issues of healthcare policy. Special focus is given to explaining, justifying, and summarizing principles of efficient policy intervention and relating them to national healthcare policy.

5V90 Healthcare Administrative Internship 1 to 9 sem. hrs.
Pre-requisite(s): Admission to MBA program; HPA 5120 and 5310.
Students will be afforded the opportunity for selection by a leading United States healthcare organization for a paid six-seven-month internship. Under the guidance of a practicing healthcare executive preceptor, students will apply knowledge gained in their MBA core studies and begin work on a major paper which will contribute to the body of knowledge for health systems.

HEBREW (HEB)

5309 Selected Documents from the Hebrew Scriptures (Cross-listed as REL 5309)
Pre-requisite(s): HEB 3301; or equivalent.
Exegesis of selected portions of the Hebrew scriptures with careful attention given to grammar, syntax, history, and theology. The course may be taken up to three times when content differs.

HISTORY (HIS)

4305 Modern China (Cross-listed as AST 4305)
Pre-requisite(s): Nine semester hours of history or consent of instructor.
A history of China from 1700 to the present that considers cultural, economic, literary, political, social, and religious developments. Emphasis will be given to the late imperial state, the Chinese heritage, decline, conflict with the West, revolution, and modernization.

4312 Modern Middle East History
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Political, religious, intellectual and social transformations in the Middle East during the nineteenth and twentieth centuries.

4313 War and Peace in the Middle East
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The interaction of policy, military force, and society in the waging of war and the quest for peace and security in the Middle East.

4316 The African Diaspora
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The history of peoples of African descent in the Diaspora worldwide.

4322 Ancient Greece
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Culture and institutions of Archaic and Classical Greece to 323 B.C.

4324 Ancient Rome
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Roman Republic and the rise and fall of the Empire to 565 A.D.

4325 The Vikings
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Focuses on Viking life, culture, trade, and migrations from AD 790 to 1100. Includes methods and applications of interdisciplinary research, particularly emphasizing the potential of archaeology to make contributions to historical studies.

4326 Early Medieval Europe, c. 300-1000
Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.
Emergence of medieval civilization through the blending of Roman, Christian, and Germanic institutions, customs, and beliefs.

4327 High Middle Ages, c. 1000-1450
Pre-requisite(s): Nine semester hours of history or consent of instructor.
A study of the flowering of medieval civilization, with emphasis on the medieval church and the origins of the modern state.

4328 Medieval Britain
Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.
Medieval British history, emphasizing the development of parliament and the common law; the medieval church in the British Isles; the social impact of warfare; the demographic impact of famine and plague in England and Britain.

4329 The Renaissance and Reformation
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The political, economic, intellectual, artistic, and religious upheavals in Europe from the thirteenth through the sixteenth centuries and the resulting social, political, religious, and cultural changes.

4330 Medieval Mediterranean World
Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.
The Medieval Mediterranean as a global region, highlighting the various connections and cultural hybridities that linked peoples of Europe, Africa, and "Asia" (now called the Middle East).

4331 European Expansion, 1400-1800
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The development and maintenance of permanent contacts by Europeans with other peoples and cultures around the world between the late Middle Ages and the turn of the 19th century.

4332 Early Modern Europe
Pre-requisite(s): Nine semester hours of history or consent of instructor.
A history of Europe from the age of absolutism to the enlightenment. Emphasis will be upon the major political, economic, social, cultural, scientific, and intellectual developments of the seventeenth and eighteenth centuries.

4333 French Revolution and Napoleon
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Background and history of the French Revolution; relatively brief consideration of the effects of the Revolution and Napoleon upon Europe.

4336 Europe since World War I
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Problems of peace making and international organization; rise of Fascism and Communism; background and history of World War II.

4337 Europe from 1815 to 1914
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Political, social, and economic development of the European nations from the Congress of Vienna to the outbreak of the First World War; the rise of liberalism and growth of nationalism; imperialism and the development of international rivalry.

4338 Cultural and Intellectual History of Europe through the Seventeenth Century
Pre-requisite(s): Nine semester hours of history or consent of instructor.
History of ideas and their social and economic background from Classical Greece through the Baroque period. Course includes Greek and Roman philosophy, Early Christianity and Scholasticism, the Renaissance, the Reformation, the Scientific Revolution, and the idea of a mechanistic universe. Considerable emphasis on literature; some attention to art and music.

4339 Cultural and Intellectual History of Modern Europe
Pre-requisite(s): Nine semester hours of history or consent of instructor.
History of ideas and their social and economic background from the Enlightenment to the present. Course includes study of Enlightenment philosophy (Reason, Nature, God, and Man), Romanticism, Democratic theory and Marxism, Idealism, Darwinism, Fascism, and Existentialism. Considerable emphasis on literature; some attention to art and music.

4340 Special Topics in History
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Study in a specialized area of history not covered by regular course offerings. May be repeated once for credit provided topic is different.

4341 Tudor-Stuart Britain
Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.
The history of Britain under the Tudor and Stuart dynasties.

4343 France since 1815
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Major topics in French history from Waterloo to the present day, including the Bourbon Restoration, the revolutions of 1830 and 1848, the Second Empire, republicanism, colonialism, the world wars, and Gaullism.

4345 Britain in the Nineteenth Century
Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.

The political, social, and economic history of Britain from the end of the Napoleonic War to the beginning of the First World War.

4346 Britain in the Twentieth Century
Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.

The political, social, and economic history of Britain from the beginning of the First World War to the end of the first Blair government.

4350 The History of Gender in Latin America (Cross-listed as LAS 4351)
Pre-requisite(s): Pre-requisite(s): Nine semester hours of history or consent of instructor; and upper-level standing.

The history of the construction of gender and gender relations from pre-Columbian societies to contemporary Latin America. Special emphasis will be given to the creation of archetypes and the contrast between legal codes and realities across time, race, class and regional divides.

4354 Religion and War in U.S. History
Pre-requisite(s): Nine semester hours of history or consent of instructor.

The dynamic relationship between religion and war throughout American history. Coverage stresses, but extends beyond, the Christian faith and traditions.

4357 Inter-American Relations
Pre-requisite(s): Nine semester hours of history or consent of instructor.

A history of the evolution of Inter-American relations from colonization to the contemporary development of regional economic blocs. Topics will include relations among the American colonies, efforts at unification after independence, the expanding role of the United States in hemispheric relations and the Latin-American reaction, and the evolution of regionalism in the hemisphere.

4362 American Colonial History
Pre-requisite(s): Nine semester hours of history or consent of instructor.

The settlement, growth, and development of Anglo-American colonies in North America. Topics include models of colonization, the development of American individualism, the creating of Atlantic trading systems, the establishment of colonial, political elites and hierarchies, and the social circumstances of women, blacks, and Indians.

4363 American Revolution and Constitution
Pre-requisite(s): Nine semester hours of history or consent of instructor.

The creation of an American nation out of thirteen colonies. Topics include the social, economic, political, and ideological roots of the colonists' resistance to imperial power, the decisions for revolution and independence, the fighting of the Revolutionary War, the rise and fall of the Confederation, and the drafting and ratification of the Constitution.

4365 The Early Republic, 1789-1860
Pre-requisite(s): Nine semester hours of history or consent of instructor.

An overview of the challenges related to creating the new nation of the United States including political, diplomatic, social, economic, and cultural issues and controversies.

4366 American Legal History to 1877
Pre-requisite(s): Nine semester hours of history or consent of instructor.

A survey of legal and constitutional documents, ideas, cases, and debates, in American history from the colonial era to 1877.

4368 Civil War and Reconstruction
Pre-requisite(s): Nine semester hours of history or consent of instructor.

Causes, military operations, and aftermath of the American Civil War.

4369 Religion in America, 1877-Present
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Religion in America from the end of Reconstruction to the present. Special attention devoted to religion's intersection with culture and politics and to the growth of religious pluralism in America.

4371 United States, 1877-1920
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Major economic, social, and political developments in the United States within the prescribed chronological limits, with secondary emphasis on the rise of the United States as a world power and its involvement in World War I. Primary emphasis given to industrialization, the farmer revolt, the Progressive Movement, and the ramifications of these events in politics and society.

4374 United States since 1920
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Continuation of HIS 4371 with emphasis on the post-Progressive decade, the Great Depression, the New Deal, and domestic developments since the New Deal. Of secondary emphasis is the coming of World War II and the consequent rise and development of the Cold War.

4375 The American Civil Rights Movement
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The origins, major events, and legacy of the struggle to gain full equality for African Americans in the century following the American Civil War. Emphasis on the philosophies and strategies employed to realize full citizenship rights for blacks, individual and institutional leadership, the participation of women, the role of religion, and the impact of this social justice movement on the South, the United States, and the world. (Graduate students may not receive credit for both HIS 4375 and HIS 5375.)

4377 History of the American Woman, 1600-1865
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Women's history in America from the colonial period to the end of the Civil War, emphasizing the changing roles of women and their contribution to and participation in American society.

4378 History of the American Woman Since 1865
Pre-requisite(s): Nine semester hours of history or consent of instructor.
A social, political, and economic survey of women in the United States from the end of the Civil War to the present, emphasizing the women's movement and its influence on American society.

4379 The Cold War (Cross-listed as SEES 4379)
Pre-requisite(s): Nine semester hours of history or consent of instructor.
History of global conflict between the United States and the Soviet Union from 1941 to 1991 including cultural, social, economic, political, and religious aspects.

4380 The American West
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The frontier in American history from early colonial times to the end of the nineteenth century, with emphasis on the significance of the frontier in American history and historiography.

4383 History of the South
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Southern culture with three topics in the ante-bellum period and three topics in the post-bellum period.

4385 The United States in the 1960s
Pre-requisite(s): Nine semester hours of history or consent of instructor.
The political, economic, social, cultural, and diplomatic development of the United States in the 1960s.

4386 The City in American History
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Emergence, expansion, and impact of urban growth in America from colonial times to the present. Emphasis given to the mechanics of city building, the social, economic, political, and cultural dimensions of urban development and the changing image of the city in the minds of the American people.

4388 American Environmental History (Cross-listed as ENV 4389).
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Investigation of the physical, social, cultural, and economic relationships between humans and their environment in America from pre-contact to the present.

4392 American Foreign Relations since 1919
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Role of the United States as a great power, with emphasis upon the changing attitudes toward world affairs.

4395 History of American Thought, 1630-1859
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Enduring beliefs about and attitudes toward the world and themselves held by Americans. Emphasis on patterns of beliefs as bases for assurance and commitment. From Puritans through transcendentalists.

4396 History of American Thought, 1859 to Present
Pre-requisite(s): Nine semester hours of history or consent of instructor.
Beliefs Americans have relied on to define and comprehend the world and themselves. Emphasis on what Americans needed and were able to believe in their search for assurance from the naturalism of the Gilded Age to the personal experiential quest of the present.

5320 Seminar in European History
May be taken five times provided topics change.

5348 Independent Study in European History
Pre-requisite(s): Graduate standing and consent of instructor.
A tutorial course for M.A. and Ph.D. students in history. The course is designed for intensive study of a period or topic in European history. The student and professor in the student's field of interest will jointly develop a student program. Students may take up to fifteen hours provided topics change.

5350 Seminar in Latin American History
Emphasizes critical reading skills using topics and literature related to Latin American history. May be taken up to two times for credit toward the master's degree provided different topics are examined.

5360 Seminar in United States History (Cross-listed as AMS 5360)
May be taken five times provided topics change.

5365 Seminar in Public History (Cross-listed as AMS 5365)
Field of public history, with emphasis on practical applications of historical methodology and the work of historians outside academia.

5367 Seminar in Oral History (Cross-listed as AMS 5367)
Literature and methods of recent United States oral history, with emphasis on the philosophy behind the oral history movement and the personal involvement of the student in the gathering of oral memoirs.

5369 The Historian's Craft

Introduction to the history profession focusing on the philosophy of history, the methodology of history, and the craft of writing and teaching history.

5370 Advanced Graduate Research and Writing (Cross-listed as AMS 5370)

Seminar for first-year students focusing on historical research skills, independent learning, critical thinking, and effective paper presentations.

5371 Religion in the American South (Cross-listed as AMS 5371)

Religion in the American South from the colonial period to the present, with emphasis on readings and primary research.

5388 Independent Study in American History

Pre-requisite(s): Graduate standing and consent of instructor.

A tutorial course for M.A. and Ph.D. students in history. The course is designed for intensive study of a period or topic in American history. The student and professor in the student's field of interest will jointly develop a study program. Students may take as many as five times, provided topics change.

5390 Archival Research in History

This course prepares advanced graduate students to work as professional historians in the archives, including the mechanics of the archives (applications, finding resources, paleography), grant writing, introduction to digital research, and production of a thesis or dissertation prospectus or chapter based on archival work.

5393 Seminar in Global History

Pre-requisite(s): Graduate Standing.

Global history is defined as the history of the non-western world, including Latin America. The seminar will focus on a Global topic--i.e. Latin America, the Muslim world, Asia, Africa, or any other specific non-western area. The course will consist of readings and research within one of the Global fields of history. May be taken five times provided topics change.

5V99 Thesis **1 to 6 sem. hrs.**

6V85 Preliminary Readings **1 to 6 sem. hrs.**

Pre-requisite(s): Completion of course work for the Ph.D.

Independent readings for Ph.D. preliminary qualifying examinations. Preliminary exams allow a student to move to candidacy. A student may repeat this course up to four times.

6V99 Dissertation **1 to 12 sem. hrs.**

Pre-requisite(s): HIS 6V85 and completion of course work for Ph.D.

Supervised research for doctoral dissertation.

HUMAN PERFORMANCE (HP)

5110 Clinical Education

Pre-requisite(s): A "C" or better in HP 5302.

Students gain hands-on experience in athletic training through the completion of clinical education hours. Students are exposed to a variety of healthcare settings and patient populations. Additionally, students' entry-level clinical skills are assessed in accordance with accreditation standards.

5201 Administrative Topics in Athletic Training

Pre-requisite(s): A "C" or better in HP 5304.

Students obtain a foundational understanding of local, state, federal, and institutional/

organizational laws and regulations pertaining to the delivery of healthcare services. Students apply business principles to the management of financial resources, strategic planning, physical facilities, and sources of risk related to athletic training.

5301 Introduction to Patient Care
Pre-requisite(s): Acceptance into the Masters of Athletic Training program.

Introduction to the profession of athletic training. Students learn important concepts of patient care related to cultural competence, ethical practice, risk management, and documentation. Additionally, students learn how lifestyle choices can affect patient outcomes. Fee: $75

5304 Concepts in Injury Management
Pre-requisite(s): A "C" or better in HP 5402.

Students obtain a foundational understanding of the evaluative procedures related to select general medical conditions and acute conditions, including triaging those that are life-threatening or otherwise emergent. Students are taught to use a variety of techniques to manage acute conditions appropriately.

5305 Advanced Patient Care
Pre-requisite(s): A "C" or better in HP 5304.

Students obtain a foundational understanding of a variety of contemporary therapy techniques used for patient care. Students develop and implement intervention strategies for improving or maintaining a patient's health and quality of life.

5306 Research Project in Athletic Training
Pre-requisite(s): Athletic Training Program Director approval.

Research project to fulfill the degree requirements of the Master of Athletic Training program. Course must be taken twice for a total of six hours.

5307 Interdisciplinary Approach to Healthcare
Pre-requisite(s): A "C" or better in HP 5305.

This course provides students with the theoretical foundation for the application of public health and mental health principles used to establish best practices in patient care. Students also learn concepts related to working within an interdisciplinary healthcare team to evaluate, treat, and support patients with a variety of healthcare concerns.

5308 Professional Preparation and Current Topics in AT
Pre-requisite(s): A "C" or better in HP 5201.

In this course students are prepared for the BOC exam through a comprehensive review of the athletic training domains. Students are also prepared for a transition to practice by learning issues related to professional development and state/federal healthcare regulations.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5302 Evaluation and Diagnosis in Athletic Training I
Pre-requisite(s): Admission into the Master of Athletic Training program.

Foundational understanding of the evaluative procedures related to the face and distal extremities. Perform a complete physical exam of a patient to formulate a clinical diagnosis and treatment plan that is relevant to specific areas of the human body.

5303 Therapeutic Interventions I
Pre-requisite(s): HP 5301 with a grade of C or higher.

Theoretical foundation for the application of therapeutic modalities and therapeutic exercise to establish best practices in patient care. Concepts related to practice patterns, quality assurance, and cost-effective healthcare.

5320 Nutritional Biochemistry

Advanced study of the biochemistry of nutrition related to macronutrient and micronutrient synthesis and metabolism. Biochemical structures and pathways involved in conducting nutrition research will be studied.

5322 Exercise, Nutrition, and Endocrinology

The study of the relationship between exercise, nutrition and the endocrine system and how this relationship affects exercise performance and good health. The influence of hormonal functions on fluid regulation, immunology, substrate utilization, stress responses, biological rhythms and physical performance will be studied. Fee: $50

5324 Muscle Physiology and Metabolism

Advanced study of the microstructure, function, and metabolism of human muscle with attention to molecular, histochemical, and biochemical assessment methodology used to assess the effects of exercise, training, and/or nutritional interventions on muscle physiology and biochemistry.

5326 Macronutrients, Micronutrients, Exercise and Health

Advanced study of the roles of carbohydrate, fat, protein, vitamins, and minerals on exercise, performance, and health. The course focuses on how dietary manipulation of macronutrients and micronutrients affects resting and exercise metabolism, disease prevention, and/or disease management.

5328 Physiology of Exercise I: Neuromuscular Aspects

Neuromuscular physiology, its relationship to exercise, muscle physiology, energy production, and nerve transmission. (Laboratory fee required) Fee: $50

5330 Physiology of Exercise II: Cardiopulmonary Aspects

Circulatory-respiratory physiology, its relationship to exercise, emphasizing oxygen uptake, stress testing, and exercise prescription. (Laboratory fee required.) Fee: $50

5331 Laboratory Skills in Exercise Physiology

Laboratory experience with tests and measures commonly employed in human performance research laboratories. The selected lab tests are designed not only to reinforce the basic principles learned in the lecture courses but also to teach the basic principles and skills of measurement and evaluation in the field of exercise physiology. Practical experiences include cardiovascular tests, ECG, blood analysis techniques, body composition, electromyography, and respiratory tests. (Laboratory fee required.) Fee: $50

5332 Prevention and Rehabilitation of Leisure-Related Sport Injuries

Nutritional and physiological principles in the prevention of and the rehabilitation of leisure-sport injuries, including cardiac rehabilitation. Fee: $50

5333 Exercise Testing and Prescription

Pre-requisite(s): Six semester hours of graduate exercise physiology.

Exercise testing and prescription that emphasizes the necessary preparation for certification by the American College of Sports Medicine. (Laboratory fee required.) Fee: $50

5334 Pedagogy & Physical Education

In this course students develop an understanding of the tools of inquiry of physical education/coaching; the ability to design, deliver and evaluate a variety of instructional strategies and processes that incorporate learning resources, materials, technologies, and state and national standards appropriate to physical education/coaching; the ability to assess student learning in physical education/coaching; and the ability to apply this knowledge, skills, and attitudes to real life situations and experiences.

5335 Sport Pedagogy

This course examines the development and application of the research conducted in physical education and coaching settings.

5340 Biochemistry in Exercise Science

An advanced overview of the role of exercise and training on metabolic pathways, energy production/regulation, signaling, muscle excitation-contraction, metabolism and adaptation focusing on how various biochemical markers can be assessed at rest, during, and following exercise using various biochemical assays and techniques. (Laboratory fee required.) Fee: $50

5348 Psychology of Physical Activity

The study of the theoretical foundations and research base for physical activity behavior change and exercise adherence. Innovative methods for affecting attitudes, knowledge, and behavior regarding exercise initiation and adherence in individuals and groups will be discussed.

5352 Principles of Exercise and Sport Nutrition

The advanced study of the interrelationships between nutrition and health. Particular attention will be given to the role nutrition plays as a means to enhance health and performance in sport.

5353 Obesity and Weight Management

Advanced study of obesity including the medical, emotional and psychological conditions that involve weight problems. Effective and age-appropriate weight management techniques will be investigated in terms of the life cycle stage. Current theories, methods, and techniques related to weight loss, weight management, and conducting obesity research will be studied.

5354 Methods of Strength and Conditioning

Physiological responses and adaptations associated with strength training are covered in conjunction with laboratory demonstrations and specific practical experiences. Mechanical and force/torque/work/power relationships are emphasized in laboratory demonstrations including isokinetic dynamometry, free weights, resistance machines and fundamental Olympic lifts. Fee: $50

5355 Power Speed Agility Quickness Training

The purpose of this course is to address physiological responses and adaptations associated with power, plyometrics, speed and agility which are covered in conjunction with laboratory demonstrations and specific practical experiences based on available scientific research. Practical mastery as well as theoretical understanding is required.

5356 Periodized Program Models of Strength Training and Conditioning

Pre-requisite(s): HP 5354.

The purpose of this course is to study current scientific principles and procedures relating to periodized strength training and conditioning. Emphasis will be placed on many aspects of periodized training which include but are not limited to the background/history, concepts, variations, and application of periodization models.

5357 Exercise Programming for Individuals with Chronic Diseases and Disabilities

A study of the pathophysiology of common heart diseases and other ambulatory sensitive conditions with the concentration in design, implementation and administration of a multidimensional therapeutic exercise prescription approach.

5358 Environmental Physiology

The study of physiological regulation during exercise in stressful environments. The ability of the body to maintain optimal health and fitness during work or exercise in the following conditions will be investigated: heat, high altitude, humidity, air pollution, cold, wind-chill, variations in day length, air ions and hyperbaric conditions.

5363 Manual Therapies in Orthopedic Rehabilitation

A course for athletic trainers on advanced manual techniques in sports medicine: proprioceptive neuromuscular facilitation, joint mobilization, therapeutic massage, myofascial manipulation, muscle energy techniques, and strain/counterstrain techniques are included.

5368 Motor Skill Learning and Performance
Pre-requisite(s): Graduate standing.
The study of the processes and variables that influence skill acquisition and the mechanisms which are involved in performing coordinated movements. Topics will include principles of human movement behavior, motor learning, motor programs and system dynamics. Fee: $50

5370 Sport Psychology
Study and application of psychological principles which influence behavior, enhance skill acquisition, and maximize sport performance of athletes, coaches, and others involved in sport.

5377 Issues and Trends in Human Performance and Sport Management
Investigation of current issues and trends in the fields of Human Performance and Sport Management and how these issues and trends may impact the future.

5379 Research Methods in Health, Human Performance, and Recreation (Cross-listed as PUBH 5379 and RLS 5379)
Developmental theory, investigation and gathering of data, statistical analysis and evaluation, and research reporting as these relate to research in health, human performance, and recreation.

5384 Biomechanics of Human Movement
Pre-requisite(s): HP 4384.
Review of current research on the biomechanics of human movement. Practical experience in the methods of biomechanical research. (Laboratory fee required.) Fee: $50

5397 Christianity, Ethics and Research with Human Participants
An examination of ethical issues of conduct surrounding research involving human participants in Kinesiology, Exercise Nutrition, and Health Promotion. Ethical principles will be examined from secular constructs and Christian perspectives.

5401 Evaluation and Diagnosis in Athletic Training II
Pre-requisite(s): HP 5302 with a grade of C or higher.
Foundational understanding of the evaluative procedures related to the pelvis, shoulder, knee and elbow. Students develop an understanding of specific areas of general medicine. Students learn to perform a complete physical exam of a patient to formulate a clinical diagnosis and treatment plan that is relevant to specific areas of the human body.

5402 Evaluation and Diagnosis in Athletic Training III
Pre-requisite(s): HP 5401 with a grade of C or better.
Foundational understanding of the evaluative procedures related to the head and spine. Instruction on the procedures used to evaluate, treat, and manage brain injuries. General medical conditions related to the respiratory, cardiovascular, and neurological systems are also reviewed.

5403 Therapeutic Interventions II
Pre-requisite(s): HP 5303 with a grade of C or higher.
Students obtain a foundational understanding of the application of therapeutic modalities and therapeutic exercise related to the practice of athletic training. Students learn to use a variety of techniques to create an effective treatment plan for diverse patient populations.

5V65 Research Seminar **1 to 6 sem. hrs.**
Provides an opportunity for students and doctoral program faculty to discuss current research in kinesiology, exercise nutrition, and health promotion as well as various professional issues (e.g., grant writing, research funding, employment opportunities, teaching techniques, tenure process, presentation methods, etc.) The seminar also provides an opportunity for students to make research proposals and/or presentations.

5V70 Special Topics in Health, Human Performance, and Recreation (Cross-listed as PUBH 5V70 and RLS 5V70) 1 to 6 sem. hrs.

Opportunities for intensive, in-depth study of areas of health, human performance, or recreation of special professional interest and need to the student. Supervision and support will be given by selected resource persons.

5V74 Professional Literature Seminar in Health, Human Performance and Recreation (Cross-listed as HED 5V74 and RLS 5V74) 1 to 6 sem. hrs.

Supervised readings in health, human performance, and recreation. May be repeated once.

5V75 Seminar in HHPR (Cross-listed as PUBH 5V75 and RLS 5V75) 1 to 3 sem. hrs.

5V90 Internship (Cross-listed as RLS 5V90) 1 to 6 sem. hrs.

Full-time experience in an agency, corporation, or hospital for on the job training in a professional field. Minimum requirement -- 400 clock hours; and consent of advisor.

5V94 Practicum in HHPR (Cross-listed as RLS 5V94) 1 to 3 sem. hrs.

Part-time experience in an agency, corporation, or hospital for exposure to various professional areas of employment. May be taken twice. May not be taken if HHPR 5690 is taken. Minimum requirement - 200 clock hours and consent of adviser.

5V99 Thesis (Cross-listed as PUBH 5V99 and RLS 5V99) 1 to 6 sem. hrs.

Credit received when thesis approved. A total of six hours will be required.

6000 Doctoral Research Seminar

Provides an opportunity for doctoral students to present and discuss current research in Kinesiology, Exercise Nutrition, and Health Promotion and to help enhance their research development.

6300 Research Methods in Kinesiology, Exercise Nutrition and Health Promotion

Pre-requisite(s): Doctoral graduate student standing or consent of instructor.

This course provides a comprehensive overview of existing and emerging research methods and techniques involved in conducting doctoral research in Kinesiology, Exercise Nutrition, and Health Promotion.

6V70 Directed Research in Kinesiology, Exercise Nutrition and Health Promotion 1 to 6 sem. hrs.

Pre-requisite(s): Doctoral graduate student standing or consent of instructor.

This course provides students with an opportunity to participate in individualized research within the department, university, and/or various collaborative clinical research centers conducting research on specific areas within Kinesiology, Exercise Nutrition and/or Health Promotion. A total of 15 hours of directed research is required for the program.

6V99 Dissertation 1 to 9 sem. hrs.

Supervised research for the completion of the doctoral dissertation and doctoral degree.

INFORMATION SECURITY (ISEC)

5305 Seminar in Information Security Foundations

Pre-requisite(s): Graduate standing.

Covers fundamental concepts in information security through providing students with a common body of knowledge in key information security knowledge domains. Coverage of these knowledge domains prepares entry-level professionals in both technical and non-technical disciplines

with the key skills and concepts needed to contribute to the information security posture of their organization.

5310 Cyber Security Human Factors: Ethics, Integrity, Practices, Policies, and Procedures
Pre-requisite(s): Graduate standing.

This course explores the areas of ethics and integrity to assure that the practices, policies, and procedures are in place in an organization to secure the firm's information. Fee: $50

5320 Cyber Security Technology Factors
Pre-requisite(s): ISEC 5305 or equivalent.

This course provides a roadmap of the paths available to organizations for deploying various security devices and tools. The course goes beyond the narrow technical view and offers a full context for the deployment of security technologies. Six key areas of network security will be covered, with each section covering a tool that will play a part in a company's overall information assurance program.

5330 Cybersecurity Policy and Planning
Pre-requisite(s): Graduate standing.

This course examines how the information security function is best managed from an organizational perspective. The class will cover a variety of topics to help students understand some of the best practices for how the security function should operate within the context of the overall organization.

5340 Cyber Warfare, Threats, Vulnerabilities and Countermeasures
Pre-requisite(s): Graduate standing.

This course presents material relevant to understanding the various types of information security risks faced by organizations. Students are also exposed to concepts for developing a corporate security plan designed to mitigate these various information security risks and cyber-attacks.

INTERNATIONAL BUSINESS (INB)

5333 Global Business Development

A study of the international dimensions of American enterprise and the background of the international environment. Includes international trade concepts, cultural dynamics, business customs, multinational markets, development markets, and influence of political, legal, and geographic factors on international marketing.

JOURNALISM (JOU)

4305 Gender, Race & Media
Pre-requisite(s): Upper-level standing or consent of the instructor.

Theory, critical analysis techniques and personal experiences with race, gender and class. Examination of the link between media representations, institutional practices and how closely these images reflect more objective measures of reality.

4315 Strategic Communications Research
Pre-requisite(s): JOU 3367.

Continued research and development of advertising materials, including strategic planning, budgeting and media allocation, testing and evaluation.

4320 Advertising Management
Pre-requisite(s): JOU 4315.
Structures and procedures for effectively managing advertising production and functions within media and agency environments.

4325 Advanced Editing
Pre-requisite(s): JOU 3325 for journalism undergraduates.
Continued development of editing skills through exploration of advanced techniques in newspaper layout and design. Individual project required. Use of Macintosh computer to design information graphics and news pages. Fee: $50

4330 News Media and American Society
Pre-requisite(s): Upper-level standing or consent of instructor.
Philosophical examination and evaluation of the interaction between society and news media in the United States.

4340 Writing and Editing for On-Line Media
Pre-requisite(s): JOU 2303 and 3325.
Technical skills, writing and editing for web-based mass communication. Students will learn the coding language, some image manipulation and writing hypertext information for web-based mass media and public relations and apply this learning in a project. Fee: $50

4350 Mass Media and Popular Culture
Pre-requisite(s): Upper-level standing or consent of instructor.
Examination and evaluation of the roles of the mass media in promoting popular culture, including how media practitioners are portrayed.

4359 History of Photography
Pre-requisite(s): Upper-level standing.
Photography since its appearance in 1839: people, ideas, and technologies that shaped the history of photography; the cultural and artistic environments in which photographs have been taken; and the major genres of photography, including portraiture, documentary, art-photography and photojournalism.

4360 Documentary Explorations
Pre-requisite(s): Upper-level standing.
The theory and, selectively, the practice of written, photographed and filmed documentary, oral history, and participant-observer anthropology. Students will undertake projects involving fieldwork. Fee: $50

4368 Advanced Public Relations
Pre-requisite(s): JOU 2303 and 3367; and upper-level standing.
Researching, planning, implementation and evaluation of public relations campaigns and programs. Includes a public relations internship. Fee: $50

4371 Public Relations Media Programming
Pre-requisite(s): JOU 3367 and 4368.
Planning and production of programming for public relations events, meetings and campaigns. Students compose presentations that mix media to achieve stated public relations objectives.

4380 Law and Ethics of Journalism
Pre-requisite(s): Upper-level standing or consent of instructor.
Rights and privileges of the news media and their social and legal responsibilities under the principles of common law and the constitution. Includes an overview of the American judicial system and the role of the journalist in reporting civil and criminal matters.

4398 Public Affairs Reporting
Pre-requisite(s): JOU 2303.
Problems in reporting local, state, and national governmental affairs, including obligations and responsibilities of the reporter and of the media. Actual practice under field conditions.

4669 Documentary Summer Field School
Pre-requisite(s): Upper-level standing.
Course centers on documentary fieldwork during a residency of up to three weeks. Methodologies may include oral history, participant observation, documentary photography and documentary radio. Fee: $50

4V80 Radford Seminar **1 to 6 sem. hrs.**
Pre-requisite(s): Upper-level standing.
Advanced writing specialization in specific journalistic disciplines. May be repeated up to a total of six semester hours provided topic is different.

4V95 Special Studies **1 to 3 sem. hrs.**
Pre-requisite(s): JOU 2303 and upper-level standing.
Individual study with faculty guidance of some vital area in the field of communication. May be repeated once with change in content.

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5310 Research Methods in Mass Communication (Cross-listed as AMS 5310)
Pre-requisite(s): Graduate standing.
Intensive study of and practice in research methods used in the study of mass communication, including content analysis, survey research, experimental designs, historical and qualitative methods. Classic and current research in mass communication will be reviewed.

5320 Theory of Mass Communication (Cross-listed as AMS 5320)
Pre-requisite(s): Consent of director of graduate studies.
To study the origins of, evidence for, and applications of various mass communication theories; to study the logic, problems and techniques of theory building; to study the societal implications of mass media research; to extend theoretical assumptions.

5350 Seminar in Mass Communication (Cross-listed as AMS 5350)
Pre-requisite(s): JOU 5310 or AMS 5310.
Research seminar in selected areas of mass communication. May be repeated when topic changes.

5388 Master's Project
Pre-requisite(s): Journalism graduate faculty approval.
Research, writing, and defense of a publication-quality journalistic series.

5389 Practicum in Journalism
Pre-requisite(s): JOU 1355, 2325 or equivalent.
Practica will be satisfied at publication, public relations, television, radio, other program-approved sites, depending upon the specialization pursued by the student. If the student has at least a half-time position at a media outlet for at least one semester during the program of study, the position may count as the practicum with previous approval of the graduate director.

5V01 International Journalism Internship **1 to 12 sem. hrs.**
One semester spent within the student's international area specialization and devoted

to university work at a non-American institution, to employment with a U. S. or non-U.S. news organization, to independent study, or to a combination of all three; to an association with Christian mission posts, with public relations and advertising agencies, or with a wide range of foreign-based American firms. Subject to approval of the director of graduate studies.

5V90 Independent Study in Mass Communication (Cross-listed as AMS 5V90)
1 to 3 sem. hrs.

A conference course for graduate journalism students in which students work under the tutelage of a graduate faculty member. Major research project and extensive required readings chosen from an area of the student's major interest. Written report submitted for publication required. The course is designed for intensive study of a topic jointly agreed upon by the professor and graduate student and subject to the approval of the director of graduate studies.

5V99 Master's Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Journalism graduate faculty approval.

Writing and defense of faculty-approved Master of Arts in Journalism thesis.

LATIN (LAT)

4309 Virgil
Pre-requisite(s): LAT 2310 and 2320.

Translation from Latin into English of selections from the works of Virgil, especially the Eclogues, Georgics, and/or Aeneid.

4310 Augustus: Reading the Ancient Sources
Pre-requisite(s): LAT 2310 and 2320; or consent of instructor.

Readings in Latin on the life and times of the Roman emperor Augustus.

4V01 Readings from Latin Literature **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.

Latin authors to be read are selected to meet the needs of the student. With content changed, this course may be repeated up to a total of nine semester hours.

5301 Latin Poetry
Representative works of Latin poetry. May be taken five times, provided topics change.

5302 Latin Prose
Representative works of Latin prose. May be taken five times, provided topics change.

5303 Latin Paleography
Introduction to manuscript studies and Latin scripts from Roman through Humanistic times.

5321 Latin Grammar for Reading Knowledge
Intensive study of Latin inflection and syntax. Helps fulfill graduate language proficiency requirement.

5322 Latin Prose and Poetry for Reading Knowledge
Readings from Latin prose and poetic authors; review of syntax and inflection. Helps fulfill graduate language proficiency requirement.

LATIN AMERICAN STUDIES (LAS)

4350 Latin American Studies Seminar
An interdisciplinary seminar to focus on topics related to Mexico, Argentina, Brazil, Central America, and developing Latin American nations. This course can be taken more than once since its content is different every year.

4351 The History of Gender in Latin America (Cross-listed as HIS 4350)
See HIS 4350 for course information.

4364 Traditional Music and Culture in Latin America (Cross-listed as MUS 4364)
See MUS 4364 for course information.

4390 Advanced Reading and Research in Latin American Studies
Advanced reading and research in Latin American studies. The content and methodology of this course should be approved by the Latin American Studies Committee.

LIBRARY SCIENCE (LS)

4320 Young People's Literature
Reading and reacting to print and non-print media relevant to interests and problems of adolescents. Attention to interest and maturity levels, developmental values, curriculum uses, discrimination of literary tastes, and the dynamic significance of literature for young people.

MANAGEMENT (MGT)

5131 Operations Strategy: Concepts and Fundamentals
This module introduces a framework for defining a company's operating system and evaluating its operations strategy and provides an overview of key diagnostic and analytical tools for identifying, framing, and solving strategic operating issues.

5132 Operations Strategy: Structuring the Operating System
This module covers key tools for resolving the challenges of operational networks, setting capacity levels and allocating capacity within the network, and establishing a strategy for operational improvement, and examines the key issues that a firm faces in establishing its operations strategy.

5133 Operations Strategy: Managing Operational Focus
This module provides frameworks for decisions on how firms should approach the execution of fundamental changes in their operating systems and addresses how various processes and systems are designed and managed in a way that builds superior and rapidly improving performance. Particular attention is placed on ways to balance the competing objectives of operational focus and growth.

5136 Human Resources Management
Pre-requisite(s): Admission to the Executive MBA program.
Participants learn to manage people to gain competitive advantage through issues in human resource management. A basic understanding of human resources functions is developed that enhances the ability of participants to work effectively with others and enhances their ability to understand how human resources is a fully integrated system linked to organizational performance. Fee: $50

5184 Negotiations: Power and Influence
Pre-requisite(s): Admission to Executive MBA program.

This course focuses on the structure of the negotiation and brings in the impact of power, influence, and politics in organizations. Students will participate in class discussions, simulations, and role play, as well as being exposed to the latest research in the area of negotiation.

5186 Strategic Planning
Pre-requisite(s): Admission to MBA program.

Discovery of how businesses and corporations develop their strategic plan using a framework for how companies approach customers, competitors, and employees. Throughout this course, students will seek to identify issues and problems facing companies in the development of their plans in domestic and international arenas. In addition, the various components of a strategic plan will be studied by using examples of companies that succeeded or failed.

5187 Strategy Implementation
Pre-requisite(s): MGT 5186.

Insight into putting the strategic plan into action. Students will build upon the ideas discussed in MGT 5186 and will assess the effectiveness of the strategy implementation in companies recognized in domestic and international markets. In contrast, companies that have not implemented their strategies will also be assessed.

5188 Strategic Control
Pre-requisite(s): MGT 5187.

Development of an understanding pertaining to company's competence in maintaining high performance, and their adaptation to the dynamics of their industries.

5191 Leading Organizational Change for High Performance
Pre-requisite(s): Admission to Executive MBA program.

This course is intended to help managers and leaders better understand and diagnose behavior in organizations. They can apply this information in an ethical manner to influence positive organizational change.

5211 Leading with Integrity
Pre-requisite(s): Admissions to Executive MBA Program.

This course is intended to help managers and leaders better understand the theories of leadership by utilizing leadership development tools, models of ethical decision making, and organizationally-relevant applied projects.

5284 Negotiations: Maximizing Multi-Party Outcomes
Pre-requisite(s): Admission to Executive MBA program.

Enhances individual effectiveness in the workplace and marketplace through the development of negotiating skills and advanced understanding of negotiation when there are more than two parties. Emphasis is on practical application of theory through a variety of skill-building exercises. Topics include distributive and integrative bargaining tactics, leverage, framing, and cognitive biases, within a multi-party setting, and team negotiations.

5307 Global Strategic Management II
Co-requisite(s): MGT 5406.

Global strategic management II provides the opportunity to observe and engage the course material from MGT 5406 for the purpose of increasing depth of knowledge of strategic management. This course is the study-abroad part of the curriculum.

5310 Management of Organizational Behavior

Management of Organizational Behavior enhances students' knowledge regarding behavioral science concepts relevant to the study of organizational and managerial behavior. The design of the course is active learning through developing skills as a manager, role play, and an extensive hands-on organizational analysis project with local organizations. Topics examined include, but are not limited

to, leadership, motivation, teams, talent development, individual differences, global issues, ethics, and organizational change. The framework used is one of organizational development as students are prepared to manage human capital effectively.

5320 Manufacturing and Service Operations

Examines various tools, techniques, and concepts that are linked with successful operations practices in today's firms. Manufacturing resource planning, just-in-time concepts, and synchronous manufacturing philosophies for the firm are emphasized. In addition, the critical role of quality assurance for firms in both manufacturing and service industries is evaluated. Experiential and computer-based simulation exercises are employed to sharpen students' abilities to identify and solve problems. Sharpens students' abilities to identify and solve problems.

5325 International Management

Strategies and strategic responses of individual firms operating internationally. The evolution of global industries, global competition, and global strategies is emphasized throughout. A major portion of the course is devoted to case analysis of U.S. and foreign firms.

5330 Management Decision Models

Application of analytical models and computer simulation to managerial problems in various functional areas. Topics examined include mathematical programming, network analysis, decision theory, waiting line validation, and implementation of computer simulation models. Fee: $50

5331 Project Management (Cross-listed as MIS 5331)

This course covers issues important in effective project management. It considers project planning, budgeting, evaluation, and auditing. It also examines methods for monitoring projects, analyzing risk, and allocating resources. [This course also prepares students for the Certified Associate in Project Management and Project Management Professional certification exams.]

5336 Seminar in Human Resource Management (Cross-listed as SOC 6350)

Subjects discussed are: changing equal employment opportunity laws and case rulings, recruitment, selection methods, total compensation systems, performance evaluation, and organizational justice. Emphasis throughout is on practical application of the theory for organizational effectiveness.

5337 Management of Employee Relations

Analysis of union-management relations in both private and public sectors. Subjects include negotiation techniques and strategies, discipline and discharge, discrimination, sexual harassment, labor contract interpretation, EAP programs, safety, management rights, seniority systems, working conditions, and others. Role playing, negotiations simulation, and analysis of arbitration cases are used. Research paper required. Fee: $50

5340 Negotiation and Conflict Resolution

Enhances individual effectiveness in the workplace and marketplace through the development of negotiating skills and advanced understanding of negotiation and persuasion. Emphasis is on practical application of theory through a variety of skill-building exercises. Topics include distributive and integrative bargaining tactics, team and multiparty negotiations, leverage, framing, and cognitive biases.

5350 Organizational Design and Development

Fundamentals of designing/redesigning an organization. Major issues include: designing individual jobs and subunits, handling interdependencies among jobs and subunits through coordination and control techniques, dealing with resistance to change, and promoting flexibility. Creating/maintaining a high level of organizational effectiveness is the overarching theme. Students interested in general management, management consulting, and positions in organization development departments would benefit in particular from the course. Fee: $50

5385 Strategic Management and Business Policy

A case problem and discussion seminar focused on developing and sustaining a competitive advantage in dynamic environments. The course examines how firms analyze external forces such as local and global trends, technological change, and competition as well as their own firm's position to compete effectively and create value for stakeholders. Both individual and group projects are emphasized. Fee: $50

5402 Negotiation

This class enhances critical thinking skills, particularly in the context of group interactions and negotiation. It focuses on understanding the theory and practice of negotiation in a variety of settings. Students learn to develop skills experientially and analogically and to understand negotiation in useful analytical frameworks.

5406 Global Strategic Management I

Co-requisite(s): MGT 5307.

Global Strategic Management provides the opportunity to extend the work completed in previous courses for the purpose of analyzing the problems and issues encountered by executives of the global enterprise.

5410 Managing for Higher Performance

This course teaches students to connect organizational behavior theory with current management practice to implement improved management skills in current and future careers.

5420 Operations Management

This course develops skills in describing and understanding operating processes and measuring and analyzing those processes, and the ability to develop and evaluate plans for positively changing those operating processes within the context of the entire organization and in harmony with the firm's strategic mission.

5485 Strategic Management and Business Policy

This course provides students with an opportunity to understand strategic management in organizations in a variety of industries by studying competition, resources, capabilities, innovation, alliances, mergers, acquisitions, and company structures.

5630 Integrative Executive Decision Making

Pre-requisite(s): Acceptance into the executive MBA program.

Integration of operational analysis with other functional areas. Computer models simulate the effects of various strategies on manufacturing plants, information flow environments, and distribution systems. The first half of the course focuses on individual skill development for use in the second half analyzing and solving core problems within the student's company. Fee: $50

5V98 Special Studies in Management **1 to 6 sem. hrs.**

This course may be taken for one to six semester hours of credit.

5V99 Thesis **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of instructor. Fee: $50

6310 Doctoral Seminar in Organizational Behavior

Pre-requisite(s): Doctoral student standing.

This course takes a holistic view to understand how the behaviors, attitudes, and emotions of individuals affect and are affected by the organizational context. Psychological theories of human behavior are reviewed in order to examine the mechanisms driving human behavior within organizational contexts at the individual, group, and organizational levels.

MANAGEMENT INFORMATION SYSTEMS (MIS)

5145 Excel Modeling Fundamentals
Pre-requisite(s): Admission to graduate business program.

This course provides students with essential spreadsheet (Excel) modeling skills in preparation for coursework in graduate business programs. Special attention is given to navigating the Excel environment, formatting and basic functions, data analysis, charts, and modeling best practices. Fee: $50.

5151 Technical Foundations of Information Systems

Part one of this course provides an overview to examine the role of information technology (IT) in business organizations, its impacts, and potential for enhancing a firm's competitive positioning. Part two exposes students to the four underlying technical elements of IT infrastructure: hardware, software, databases, and networks. This technology overview provides students with basic literacy in technology concepts to enable effective communication with technical specialists in the business environment.

5152 Aligning IT with the Business Enterprise
Pre-requisite(s): MIS 5151.

The business literature abounds with examples of information technology (IT) project failures. Most often, such failures are due to poor alignment between firms' business and IT strategies. This course examines the causes of such failures and provides a framework of best practices to insure firms' ability to maximize the value achieved from IT investments.

5153 Managing the IT Resource
Pre-requisite(s): MIS 5152.

Part one of this course examines principles and practices related to effective systems development practices from the standpoint of a non-technical manager. We begin the section with a discussion of the systems development life cycle (SDLC) and augment this with a discussion of emerging systems development trends and practices as well as an examination of traditional systems development methodologies. Part two of the course examines various IT risk management and security issues.

5301 Seminar in Object-Oriented Business Programming

Students will survey object-oriented concepts currently used in the development of business applications. Emphasis will be placed on programming logic, data structures, and program analysis.

5310 Business Telecommunication and Networking

The use of telecommunications to network and integrate various information technology platforms. Beginning with the media and hardware used in digital communications, the course moves through the ISO model to the presentation and application layers. Hands-on projects are utilized throughout the course to illustrate how various network operating systems are implemented and to provide training on the more popular platforms.

5315 NET Systems Development
Pre-requisite(s): MIS 5301.

Presents current technological solutions to business information needs. The course focuses on tools available to IS professionals to develop business applications that can run on networks and client/server systems. Emphasis will be placed on "NET" development of client/server systems.

5316 Development of Object-Oriented Business Systems
Co-requisite(s): MIS 5301.

The objective of the course is to present a total client-server approach to development. The thin-client portion of the course is directed towards browser hosted data collection and presentation using JavaScript. The course presents fundamental JavaScript control syntax, function definition and HTML form processing. The server-side concentrates on PHP for server processing with languages like PERL and C added to the course as time allows.

5317 Seminar in Java Development
Pre-requisite(s): MIS 5301.

Seminar in client-side application development using the Java programming language. Topics include object-oriented design, essential language syntax, and developing user, file, and Internet interfaces for business systems to support e-commerce initiatives.

5319 Development of Mobile Applications

Study of applications development in a cross-platform mobile computing environment.

5325 Information Systems for Management

Emphasizes the importance of information and information technology in managing firms today. The case-oriented course includes topics such as information technology types and trends, the assessment and management of information systems projects, and the relationship of technology to organizational strategy, structure, controls, and effectiveness.

5330 Global Dimensions of Information Systems

As business becomes more global in nature, information systems and technology will become increasingly important to the successful management of business enterprises. This course will examine the international business environment and how information systems and technology can be utilized in that environment. Specific topics to be covered include international standards, problems with transnational flows of data and information, international standards, telecommunications and global connectivity, strategic planning to gain global competitive advantage, and human resources related to global information systems.

5331 Project Management (Cross-listed as MGT 5331)
See MGT 5331 for course information.

5335 Information Systems Analysis and Design

To acquaint students with the concepts, problems, and possible solutions for all stages of the systems development life cycle. Emphasis on object-oriented analysis and design techniques. Topics include modeling with UML, the role of the IS professional in the development of successful systems, and project management.

5340 Database Management Systems
Pre-requisite(s): MIS 5335.

The use of database techniques to represent and manipulate data in the development of information systems. Includes rationale and objectives of the database approach; conceptual data modeling; logical database design; mapping logical design to the relational data model; physical design and implementation of databases; manipulating information in databases; database administration; and connecting applications to databases, including web-enabled applications.

5341 Advanced Database Management
Pre-requisite(s): MIS 5340 or consent of instructor.

This course will cover advanced topics in database design and implementation, including the storage, access, and management of business information to facilitate decision-making. Topics may include advanced SQL commands, application data access using PL/SQL and/or ASP, advanced topics in database systems such as XML and data warehouses, and database administration topics. A technical presentation may be required. Fee: $50

5342 Business Intelligence

Business Intelligence (BI) is the discovery of patterns and relationships hidden in large volumes of data. This hands-on course is designed to provide practical analytic skills that may be applied in almost any workplace. The course explores the analytical techniques for making intelligent business decisions in data-rich organizations. A key component of the course is the use of BI software tools with techniques such as correlation analysis, data visualization, linear regression, classification, and clustering to address common problems in marketing, customer relationship management, risk management, finance, and operations.

5343 Seminar in Data Visualization

Covers basic theories of cognition and data visualization, including how data types influence the decision to use a particular representation, when to use various chart types, how to structure data visualizations, and visualization evaluation. Emphasis on ethical use of visualizations.

5345 Decision Making Using Excel

This computer applications course provides students with advanced data analysis and modeling skills necessary for manipulating, sharing, and presenting data to support business decision making. Major topics include basic statistical concepts in Excel, complex queries, importing external data, data cleansing, pivot tables, macros, text manipulation, multiple applications linking, simulation modeling, decision making under uncertainty, and special topics.

5346 Data Warehousing

Pre-requisite(s): MIS 5340 or consent of instructor.

This course focuses on data warehouses as a component of business intelligence. The course will cover techniques for designing, implementing, and analyzing data in data warehouses using a hands-on approach. The course also discusses managerial and ethical issues in implementing data warehouses.

5347 Text Analytics

Pre-requisite(s): QBA 5131 or consent of instructor.

Text Analytics analyzes unstructured responses such as those from open-ended surveys, blogs, and online communities, to identify underlying themes and sentiment that are not immediately apparent. This analysis discipline has current application in market research, intelligence and security, healthcare and life science, recruiting, and legal compliance. The course gives particular attention to developing a process for using text analytics technology to yield valid and reliable results.

5355 Management of Information Systems

Pre-requisite(s): Admission to MS/IS program.

Future information systems leaders and managers focus on understanding the issues involved in deploying information systems in organizations, the evaluation and adoption of emerging information and communication technologies (ICTs), the strategic role of the IS function, and the relationship of IS with the overall enterprise. Course coverage includes in-depth analysis of current issues in the field of information systems.

5375 Business Process Planning

Co-requisite(s): MIS 5325 or 5355.

This course explores the history of Business Process Reengineering/Redesign, the use of BPR in today's business environment, and how BPR can enable changes inherent in moving to Enterprise Resource Planning, E-Commerce and Customer Relationship Management. The course involves students in the analysis of real business processes from case studies and local businesses. CASE tools are used to develop both "as is" and "to be" business scenarios for understanding the change process.

5450 Management of Information Systems

This course deepens student's understanding and appreciation of the strategic role that information technology plays in organizations and provides key concepts for effectively planning, building, deploying, and managing information resources in enterprise environments. The course is relevant for students seeking career opportunities in IT management or consulting and individuals aspiring to a career in general (non-IT) management.

5V95 Internship in Information Systems **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of instructor.

Provides students with a carefully directed real-world learning experience. A project developed jointly by the sponsoring company and faculty provides experience in various IS functions and business activities.

5V98 Special Studies in Information Systems **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Offered on demand for one to six semester hours of credit.

5V99 Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of MIS 5V99 are required. Fee: $50

6310 Foundations in Information Systems Research
A seminar covering key classical information systems readings and theoretical perspectives designed to help students critically think and constructively criticize research papers in the field.

6320 Quantitative Methods in Information Systems Research
This course is designed to provide doctoral level students with an introduction to the major methodological issues and techniques associated with quantitative research. Emphasis is given to the techniques that are most commonly used in information systems research.

6325 Quantitative Methods: Survey Research Using PLS Analysis
This course focuses on the understanding and use of Partial Least Squares (PLS) methodology in IS research contexts. PLS is used by students to simulate path analysis procedures using data gathered by the professor. Requirements of the course include learning the fundamental statistical foundations underlying structural equations modeling and soft modeling and survey methods. This course provides direction for the successful completion of an independent research project using PLS that will be submitted to an IS conference and/or journal.

6330 Theoretical Perspectives in Information Systems Research
A seminar designed to provide doctoral students across different disciplines a broad introduction to key management, organizational, and behavioral research issues, and challenges in topics of information technology (IT). The course is designed for both information systems (IS) and non-IS Ph.D. students.

6340 Qualitative Methods in Information Systems Research
A seminar designed to provide doctoral level students with an introduction to the major methodological issues and techniques associated with qualitative research. Emphasis is given to case research strategies, both positivist and interpretive, but the course will also discuss action research.

6345 Qualitative Methods: Collecting and Analyzing Case Study Data
The course covers the conceptual foundations of the qualitative research process that includes gaining access to a field site, conducting interviews, writing field notes, coding and analyzing data using a qualitative analysis software tool, and writing research results. Additionally, students will have the opportunity to code and analyze real-world data using a qualitative data analysis tool.

6350 Conducting Effective Literature reviews: A Doctoral Seminar for pre-Dissertation Students
A course to help doctoral students learn to write theory-building literature reviews. Doctoral students taking this class will read and discuss a variety of review papers published primarily in MIS quarterly, but also in several other journals from management literature.

6370 Contemporary Issues in Information Systems Research
This course aims to help doctoral students gain exposure to the latest in IS research. The emphasis will be given on the research published in the highest quality IS journals over the past year as well as research appearing in the top conferences in the past year.

6372 Seminar in Group Communication and Decision-making
This course is designed to provide the participant with a basis for developing a rich understanding concerning the nature of information systems in support of group communication and

decision-making within the organization. The primary focus involves the interaction of these systems with the behavioral systems within the firm.

6374 Organization Theory and its Application in Information Systems Research

A seminar designed to acquaint students with the theories used to examine phenomena related to the introduction, adoption, use, and exploitation of information systems in organizations. The bulk of the material covered will be at the organizational level of analysis.

6380 Ethics in Contemporary Topics in Information Systems

This doctoral seminar examines ethical issues and dilemmas in contemporary and emerging topics within information systems. The course takes an interdisciplinary approach to eight areas related to information systems.

6398 Research Apprenticeship I

Pre-requisite(s): Completion of first year of Ph.D. program.

Students are assigned to a research mentor to facilitate understanding of the research process with the goal of producing a manuscript suitable for submission to a conference proceedings or journal article.

6399 Research Apprenticeship II

Pre-requisite(s): MIS 6398; completion of second year of Ph.D. program.

Students are assigned to a research mentor to facilitate understanding of the research process with the goal of producing a manuscript suitable for submission to a conference proceedings or journal article.

6V98 Special Studies in Information Systems **1 to 6 sem. hrs.**

Specialized study for PhD students in Information Systems. Special studies are offered on demand and may count for one to six semester credit hours. They may be taken more than once provided the title and content substantially differ from prior special studies courses.

6V99 Dissertation **1 to 12 sem. hrs.**

Pre-requisite(s): Completion of coursework and comprehensive exam.

Supervised research for the doctoral dissertation.

MARKETING (MKT)

4360 Customer Analytics

Pre-requisite(s): MKT 3330 or QBA 3305; only open to BBA students; BBA students must be admitted to the Business School in order to take this course.

This course will enable students to: apply basic skills in data manipulation and visualization using various software packages, analyze customer data with the help of different statistical tools and techniques and use the findings from data analyses to make managerially relevant marketing decisions anchored in Customer Analytics.

5111 Seminar in Marketing Administration-Planning

Pre-requisite(s): Admission to MBA program.

Taught from the perspective of a mid-to upper-level marketing manager. Students will develop an understanding of marketing strategy and its role in today's complex business environment. Topics include an overview of the marketing planning process with an emphasis on target market selection and marketing plan development and the strategic aspects of marketing management.

5112 Seminar in Marketing Administration-Implementing

Pre-requisite(s): MKT 5111.

Presentation of the strategies and tactics involved in a marketing program from the perspective of a mid-to upper-level marketing manager. The course content assumes a basic understanding of

marketing principles while using lectures, readings, and case analyses. Product, pricing, promotion and distribution issues will be discussed with an emphasis on the interrelationships between marketing decisions. Marketing ethics and social responsibility and their importance in marketing decision-making will also be discussed.

5113 Seminar in Marketing Administration-Adapting
Pre-requisite(s): MKT 5112.

This seminar will be taught from the perspective of a mid-to upper-level marketing manager using lectures, readings, and case analyses presenting a variety of topics involving the adaptation of current marketing practices in differing situations. Topics will include interfunctional relationships, international marketing, total quality management, and the assessment of marketing expenditures.

5210 Decision Based Marketing
Co-requisite(s): HPA 5105.

This course will confront the challenge of designing and implementing a successful combination of marketing variables to make informed decisions about the firm's strategy in its target markets. The course also addresses the importance of companies being market-driven and customer-focused as well as presenting current marketing management practices. As decision makers, the students will learn to implement analytic perspectives, decision models, and marketing concepts to assist with decisions involving communications strategies, product offering, pricing, and distribution channels.

5310 Seminar in Marketing Strategy
Pre-requisite(s): MKT 3305.

Role of marketing decision making in achieving corporate objectives; planning and implementing the marketing program; product research and development, distribution problems, promotional strategies, and pricing analysis. Attention will be given to the new marketing application of quantitative methods and the behavioral sciences.

5315 Seminar in Comparative Marketing
Pre-requisite(s): MKT 3305.

Marketing structures, functions, and institutions in different national environments. Emphasis is placed on the manner in which different economic systems condition and shape the nature of marketing. Fee: $50

5325 Seminar in Marketing Research
Pre-requisite(s): MKT 3305.

First-hand experience with real-life marketing research problems, including such areas as research design, sampling, experimental design, parametric and nonparametric data analysis techniques, and computer statistical programs.

5330 Marketing Communications
Pre-requisite(s): BUS 5602 or equivalent.

Statistical techniques and their applicability to business decision making. Topical coverage includes multiple regression, analysis of variance, factor analysis, discriminant analysis, cluster analysis, and multidimensional scaling. Fee: $50

5335 Business to Business Marketing
Pre-requisite(s): BUS 5602 or equivalent.

Marketing by firms to organizations rather than to households. Negotiation strategies are emphasized along with management of relationships, purchasing, distribution channels, and distribution logistics. Fee: $50

5340 Product Strategy
Pre-requisite(s): BUS 5902 or equivalent.

New product development, management of existing products, product elimination decisions, and pricing at all stages of the life of a product. Emphasis is placed on decision making as it applies to product and pricing strategy and tactics. Fee: $50

5341 Theory and Practice in Customer Relationship

The understanding of systems, dependencies, variability, and interrelationships--including the ability to manage systems--is an essential element in customer relationship management (CRM). Therefore, the organization and the supply chain as interrelated systems is the starting point for this course. From that foundation, students will move into assessing measurements, the tools for analyzing an organization's current business processes and flows, and the means for integrating these into customer management initiatives. The "nuts-and-bolts" issues in the course address new customer data collection, using CRM for customer acquisition and retention, call management, segmenting the customer base, and creating a customer-driven web site. Behavioral changes as well as the impact of organizational policies on the ability to provide a satisfying customer experience will be examined.

5345 Seminar in Consumer Behavior

Pre-requisite(s): MKT 5310.

The role of consumer behavior in marketing strategy is emphasized. The course builds on foundations from a variety of disciplines including psychology, sociology, cultural anthropology, economics, and semiotics. Fee: $50

5398 Directed Studies in Marketing

Special topics in marketing of interest for individual students. May be repeated twice with change of topic.

5410 Strategic Marketing Planning

This MBA marketing strategy course provides participants the opportunity to develop a better understanding of marketing strategy and its role in today's complex business environment. The course covers the decisions in a well-integrated marketing program, demonstrates the importance of marketing strategy and the interrelationships between the marketing unit and other functional units, covers the essential elements of marketing analysis, and emphasizes the major components of a marketing plan.

5440 Strategic Brand Management

This MBA marketing course provides participants the opportunity to develop a better understanding of branding strategy and its role in today's complex business environment. The course covers the leading theories, models, and other tools to make better branding decisions, and how to plan and evaluate branding strategies. It also provides a forum for students to apply these principles.

5460 Marketing Analytics

Students learn how to use data analytics to guide business decisions that will build value for customers and corporations. The course explores the leading theories, models, and techniques underlying marketing analytics.

5V95 Internship in Marketing **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of instructor.

Practical marketing work under supervision in an approved commercial or industrial firm. This course may be taken for three to six semester hours of credit. Consent of major adviser required. Fee: $50

5V99 Thesis **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of instructor. Fee: $50

MATHEMATICS (MTH)

4314 Abstract Algebra

Pre-requisite(s): A grade of C or above in MTH 2311 and MTH 3312; or consent of instructor.

Fundamentals of group, ring, and field theory. Topics include permutation groups, group and ring homomorphisms, direct products of groups and rings, quotient objects, integral domains, field of quotients, polynomial rings, unique factorization domains, extension fields, and finite fields.

4322 Numerical Analysis (Cross-listed as CSI 4322)
Pre-requisite(s): A grade of C or above in MTH 2321.
Numerical evaluation of derivatives and integrals, solution of algebraic and differential equations, and approximation theory.

4326 Advanced Calculus I
Pre-requisite(s): A grade of C or above in MTH 2321 and MTH 3323 or consent of instructor.
The real and complex number systems, basic topology, numerical sequences and series, continuity, differentiation, integration, sequences and series of functions.

4327 Advanced Calculus II
Pre-requisite(s): A grade of C or above in MTH 4326.
Line and surface integrals, Green, Gauss, Stokes theorems with applications, Fourier series and integrals, functions defined by integrals, introduction to complex functions.

4328 Numerical Linear Algebra (Cross-listed as CSI 4328)
Pre-requisite(s): A grade of C or above in MTH 2311 and 3324.
Numerical methods for solution of linear equations, eigenvalue problems, and least squares problems, including sparse matrix techniques with applications to partial equations.

4329 Theory of Functions of a Complex Variable
Pre-requisite(s): A grade of C or above in MTH 2321.
Number systems: the complex plane; fractions, powers, and roots; analytic functions; elementary functions; complex integration; power series; mapping by elementary functions; calculus of residues.

5310 Advanced Abstract Algebra I
Pre-requisite(s): MTH 4314 and consent of the instructor.
Finite groups, Sylow theorems, nilpotent and solvable groups, principal ideal domains, unique factorization domains, and sub rings to algebraic number fields.

5311 Advanced Abstract Algebra II
Pre-requisite(s): MTH 5310.
Field theory, Galois theory, modules, finitely generated modules, principal ideal domains, homological methods, and Wedderburn-Artin theorems.

5316 Linear Algebra and Matrix Theory
Pre-requisite(s): MTH 3312.
Matrix calculus, eigenvalues and eigenvectors, canonical forms, orthogonal and unitary transformations, and quadratic forms. Applications of these concepts. A course project is required and will be specified by the professor at the beginning of the course.

5323 Theory of Functions of Real Variables I
Pre-requisite(s): MTH 4327.
Borel sets, measure and measurable sets, measurable functions, and the Lebesque integral.

5324 Theory of Functions of Real Variables II
Pre-requisite(s): MTH 5323.
Function spaces, abstract measure, and differentiation.

5325 Theory of Differential Equations
Pre-requisite(s): MTH 3325 and 5323.
Initial value problems for ordinary differential equations: existence, uniqueness, continuous dependence, stability analysis, oscillation theory, general linear systems, phase plane analysis, limit cycles and periodic solutions. Topics of current interest in dynamical systems.

5326 Theory of Partial Differential Equations
Pre-requisite(s): MTH 5324 and 5325.

Linear and quasilinear first order equations; shocks, characteristics, the Cauchy problem, elliptic, hyperbolic, and parabolic equations, maximum principles, Dirichlet problem, operators, Sobolev spaces, distributions.

5330 Topology
Pre-requisite(s): Graduate standing.

Topological spaces, continuous functions, metric spaces, connectedness, compactness, separation axioms, Tychenoff theorem, fundamental group, covering spaces, metrization theorems.

5331 Algebraic Topology I
Pre-requisite(s): MTH 5330.

Homology theory, simplicial complexes, topological invariance, relative homology, Eilenberg-Steenrod axioms, singular homology, CW complexes.

5332 Algebraic Topology II
Pre-requisite(s): MTH 5331.

Cohomology theory, homology with coefficients, homological algebra, kunneth theorem, duality in manifolds.

5340 Differential Geometry
Pre-requisite(s): MTH 4327, 5316, and 5330.

Differentiable manifolds, submanifolds, vector fields, tensor fields, integration on manifolds, Riemannian geometry.

5345 Functional Analysis
Pre-requisite(s): MTH 5324.

Banach spaces, Hilbert spaces, linear operators, and spectral theory.

5350 Complex Analysis

Comoplex numbers, complex functions, analytic functions, linear fractional transformations, complex integration, Cauchy's formula, residues, harmonic functions, series and product expansions, gamma function, Riemann mapping theorem, Dirichlet problem, analytic continuation.

5351 Applications of Complex Analysis
Pre-requisite(s): MTH 5350.

Poisson summation, Mellin transformation, zeta function of Riemann, special functions, zeta functions associated with ezjen value problems, heat kernel, asymptotic expansion of the heat kernel, metamorphic structure of zeta functions, theta functions, elliptic functions.

5360 Applied Mathematics I
Pre-requisite(s): Graduate standing.

Dynamical systems (discrete and continuous), linear and nonlinear systems theory, transform methods, control theory and optimization, calculus of variations, stability theory.

5361 Applied Mathematics II
Pre-requisite(s): Graduate standing.

Eigenvalue theory, projections for linear equations, iteration and multilevel methods, fast Fourier Transforms, approximations of differential equations, grid adaptation and numerical stability, weak solutions and Sobolev space, wavelets.

5375 Linear Programming
Pre-requisite(s): MTH 2311 and FORTRAN, or consent of instructor.

Introduction to the theory and applications of linear programming, including the simplex algorithm, duality, sensitivity programming, including the simplex algorithm, duality, sensitivity analysis, parametric linear programming, integer programming, with applications to transportation

and allocation problems and game theory. A course project is required and will be specified by the professor at the beginning of the course.

5376 Nonlinear Programming

Theory and algorithms for the optimization of unconstrained problems including gradient and Quasi-Newton methods; and constrained problems to include feasible direction methods, Lagrange multipliers, and Kuhn-Tucker conditions. Students must have a knowledge of linear algebra, third-semester calculus, and FORTRAN.

5380 Statistical Methods for Research

Pre-requisite(s): For graduate students from various disciplines.

Introduction to the more common statistical concepts and methods. Emphasis is placed on proper applications of statistical tools. Topics include: interval estimation, tests of hypotheses, linear regression and correlation, categorical data analysis, design of experiments and analysis of variance, and the use of computer packages.

5390 Special Problems in Mathematics

Project course for the project option in the M.S. degree.

5V91 Special Topics in Algebra for Graduates **1 to 3 sem. hrs.**

May be repeated for credit up to 18 hours.

5V92 Special Topics in Analysis for Graduates **1 to 3 sem. hrs.**

May be repeated for credit up to 18 hours.

5V93 Special Topics in Mathematics for Education Students **1 to 3 sem. hrs.**

Pre-requisite(s): Consent of departmental chair and the course instructor.

May be repeated for credit for a maximum of nine semester hours if under different topics.

5V95 Special Topics in Topology-Geometry **1 to 3 sem. hrs.**

May be repeated for credit for a maximum of 9 semester hours.

6310 Commutative Rings and Modules

Pre-requisite(s): MTH 5311.

Noetherian rings, quotient rings, primary decomposition, integral dependence and valuations, Dedekind domains, and discrete valuation rings, completions, dimension theory.

6311 Non-Commutative Rings and Modules

Pre-requisite(s): MTH 6310.

Semi-simple rings and modules, radicals, chain conditions, decomposition of modules, Goldie's theorem, density and Morita theory.

6312 Abelian Group Theory

Pre-requisite(s): MTH 5311.

An introduction to the fundamental theory of torsion, torsion-free, and mixed abelian groups.

6315 Homological Algebra

Pre-requisite(s): MTH 5311 or consent of instructor.

Categories, chain complexes, homology and cohomology, and derived functors. Detailed examination of Ext, Tor, adjoint functors, and direct and inverse limits for categories of modules. Kunneth formula and universal coefficient theorems. Cohomology of groups.

6322 Approximation Theory

Pre-requisite(s): MTH 4322 and 4328.

Approximation of real functions including polynomial and rational interpolation, orthogonal polynomials, Chebysher approximation, the fast Fourier transform, splines, wavelets, and tensor product interpolation.

6325 Numerical Solutions of Partial Differential Equations
Pre-requisite(s): MTH 4322 and 4328.
Finite difference and finite element methods for elliptic, parabolic, and hyperbolic problems in partial differential equations.

6340 Compact Lie Groups
Pre-requisite(s): MTH 5310 and 5340.
Compact Lie groups, Lie algebras, representation theory, orthogonality relations, Peter Weyl theorem, structure theory, roots, Weyl character formula.

6341 Lie Algebras
Pre-requisite(s): MTH 5310 and 5316.
Lie algebras, semisimple Lie algebras, root systems, conjugecy theorems, classification theorem, representation theory, Chevalley algebras.

6342 Semisimple Lie Groups
Pre-requisite(s): MTH 6340 and 6341.
Structure theory for noncompact groups, induced representations, tempered representations, Langland's classification of irreducible admissible representations.

6350 Set and Model Theory
Pre-requisite(s): MTH 5311.
Propositional and predicate calculus, Loewenheim-Skolem theorems, properties of ultraproducts, model completeness, Goedel's completeness/incompleteness proofs, infinitary language, axioms of set theory, ordinal and cardinals arithmetic, models of set theory and large cardinals.

6V13 Advanced Topics in Algebra **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
May be repeated for credit up to 18 hours.

6V23 Advanced Topics in Analysis **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
May be repeated for credit up to 18 hours.

6V24 Advanced Topics in Applied Mathematics **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
May be repeated for credit up to 18 hours.

6V28 Advanced Topics in Numerical Analysis **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
May be repeated for credit up to 18 hours.

6V30 Advanced Topics in Topology **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
Topology is the study of abstract mathematical spaces with the ultimate goal of finding invariants that are preserved under continuous transformation. This course is intended for doctoral candidates with a strong interest in topology. May be repeated for credit.

6V43 Advanced Topics in Representation Theory **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.
May be repeated for credit up to 18 hours.

6V99 Dissertation **1 to 12 sem. hrs.**
Supervised research for the doctoral dissertation.

MECHANICAL ENGINEERING (ME)

4330 Introduction to Robotics (Cross-listed as ELC 4330)
See ELC 4330 for course information.

4346 Introduction to Aeronautics
Pre-requisite(s): Upper division admission.
Introduces the applied science of atmospheric flight. The course teaches about airplanes and how they fly from a design and application perspective. Included are topics in fluid dynamics, airfoil and wing theory, aircraft performance, stability, and aircraft design.

4347 Analysis and Design of Propulsion Systems
Pre-requisite(s): ME 3321 and 3345.
Introduction to compressible flow, including flows with simple area change, heat addition, friction, and shock waves. Analysis, parametric design, and performance of ramjets, turbojets, turbofans, and turboprops. Introduction to the operating principles of major engine components. Introduction to rockets. (3-0)

4377 Solar Energy (Cross-listed as ELC 4377)
See ELC 4377 for course information.

4382 Selection of Materials and Manufacturing Processes in Design
Pre-requisite(s): ME 3320 (or equivalent), ME 3322 (or equivalent), and ME 3323 (or equivalent).
Systematic approach for selection of materials and manufacturing process in design that balances performance requirements with cost of materials and manufacturing. Material properties, manufacturing processes and types of materials. Advanced computer software and case studies are used to illustrate application of principles. (3-0) Fee: $50

4396 Special Topics in Mechanical Engineering
Pre-requisite(s): Consent of Department Chair.
Study of advanced topics in mechanical engineering. This course may be repeated once under a different topic.

4V97 Special Projects in Mechanical Engineering 1 to 6 sem. hrs.
Pre-requisite(s): Consent of department chair.
Advanced topics and/or special project activities in Mechanical Engineering.

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5302 Engineering Analysis (Cross-listed as EGR 5302 and ELC 5302)
See ELC 5302 for course information.

5323 Introduction to Finite Element Methods
Introductory course on the theory and techniques of finite element analysis for numerical solutions of partial differential equations beginning from energy concepts and foundational constitutive equations. Numerical implementations and solutions are demonstrated by user-created code using modern computer technologies.

5324 Advanced Dynamics
Pre-requisite(s): Graduate standing in Engineering.
An advanced study of the mechanical dynamics of systems involving multiple, interconnected rigid bodies. Topics include mathematical expressions of body kinematics, various methods to derive dynamic equations of motion, three-dimensional inertial properties, and dynamic motion constraints.

5325 Advanced Finite Element Methods
Pre-requisite(s): ME 3321 (or equivalent), 4324 (or equivalent), and 4345 (or equivalent).

Advanced analysis of the finite element theory with emphasis on non-linear applications for thermal and fluidic applications. Course will formulate the finite element form from several classes of constitutive equations, discuss solution methods, and construct and implement algorithms for solving the finite element form. (3-0) Fee: $100

5338 Experimental Methods in Heat Transfer and Fluid Flow
Pre-requisite(s): ME 4335 or consent of instructor.

Consideration of experimental methods including experiment planning and design, error and uncertainty analysis, temperature measurement (in fluids and solids), flow rate measurement, flow visualization, and advanced data analysis;
selected experiments conducted. Fee: $150

5340 Intermediate Fluid Mechanics
Pre-requisite(s): ME 3321.

Introduction to vectors and tensors, deformation and stress in fluids, kinematics of fluid flows, conservation laws, Navier-Stokes equations, energy equation, introduction to computational fluid dynamics (CFD), introduction to vorticity dynamics and selected topics in compressible fluid flow.

5341 Intermediate Heat Transfer
Pre-requisite(s): ME 4345 (or equivalent).

Study of conduction, convection, and radiation. Steady and transient one - and multi-dimensional heat transfer with emphasis on analytical methods, numerical techniques, and approximate solutions.

5342 Inviscid Flows
Pre-requisite(s): ME 5340 or concurrent enrollment.

Introduction to the dynamics of inviscid, incompressible fluids; vector representation theorems; vorticity transport theorem; solution methods to steady and unsteady, two-dimensional, axisymetric and three-dimensional flows; computational methods for inviscid flows; and forces and moments on bodies in two-dimensional flows.

5343 Computational Fluid Dynamics
Pre-requisite(s): ME 3321.

Study of numerical methods tailored to solve thermo-fluids governing equations. Classification of partial differential equation (PDE). Finite difference method. Basic concepts of discretization, consistency, and stability. Applications of numerical methods to selected model PDE. Numerical methods for inviscid flow, boundary-layer flow, and the Navier-Stokes equations. Applications include supersonic compressible and subsonic incompressible flows. Turbulence modeling. Finite volume method. Completion of ME 3321 Fluid Mechanics or equivalent recommended. (3-0)

5344 Viscoelasticity

The Theory of Viscoelasticity is fundamental in the study of time rate dependent materials, with specific emphasis on applications to engineering systems with plastics and materials with polymeric behavior.

5347 Analysis and Design of Propulsion Systems
Pre-requisite(s): ME 3321, 3345.

Introduction to compressible flow, including flows with simple area change, heat addition, friction, and shock waves. Analysis, parametric design, and performance of ramjets, turbojets, turbofans, and turboprops. Introduction to the operating principles of major engine components. Introduction to rockets.

5348 Wind Energy

This course presents fundamentals about wind turbines, both commercial and residential. Included are topics in aerodynamics, structures, power generation, control economics, environments, noise, and design.

5351 Intermediate Numerical Methods
Pre-requisite(s): MTH 2311 and 3326

Introduction to engineering computational methods for design, from theory to algorithm to implementation. Topics will include: roots of equations, optimization, linear systems, integration and differentiation, curve-fitting, and systems of ordinary differential equations.

5352 Theory of Elasticity
Pre-requisite(s): ME 3320, 3321, and MTH 3326.

The Theory of Elasticity is fundamental to the study of linear and non-linear solid mechanics. This course introduces the foundations of elasticity for a deformable body, including the concept of deformation and stress using tensor calculus.

5353 Continuum Mechanics
Pre-requisite(s): ME 3320 and Graduate standing.

Introductory course into the mechanics of a continuous medium. Topics include the foundational concepts of stress, strain, and constitutive relationships presented in Cartesian tensor notation. Studies will focus on both solid and fluid mechanics.

5360 Renewable Energy Devices

Educates graduate students from engineering disciplines in the design and applications of various renewable energy sources, materials, and devices. Introduces the basic concepts, principles, potentials, and limitations of several energy conversion and storage devices with a particular focus on solar cells, fuel cells, batteries, and supercapacitors.

5365 Properties and Processing of Electronic Materials

Study of the design and applications of conventional and advanced electronic materials ranging from typical Si and electroceramics to complex oxides and conducting polymers. Fundamental issues controlling their properties, processing, and reliability are addressed. In addition, a variety of thin film deposition techniques such as dc/rf magnetron sputtering, thermal/e-beam evaporation, and chemical vapor deposition are covered.

5382 Mechanical Behavior of Polymers and Polymeric Composites
Pre-requisite(s): ME 3320 or equivalent and ME 3322 or equivalent.

Elastic and viscoelastic behavior of polymers and polymeric composites, predicting long-term behavior from short-term tests using

time-temperature-superposition; relating chemical structure to mechanical properties for thermosets, thermoplastics, and semi-crystalline plastics; relating processing to mechanical properties; and predicting stiffness and strength from properties of fibers and polymeric matrices. Fee: $50

5383 Deformation and Fracture in Metals
Pre-requisite(s): ME 3320 or equivalent and ME 3322 or equivalent.

This course introduces students to advanced theories of deformation and fracture that limit lifetimes in service of components and structures made of metals and alloys. Fracture mechanics are introduced as a tool in the life prediction of components that develop cracks before catastrophic failure. Plastic collapse, creep, fatigue, and environmental stress cracking are covered. Failure analysis methodology and tools are introduced and illustrated.

5385 Failure Analysis: Theory and Practice
Pre-requisite(s): ME 3322.

Introduction to basic failure theories and their application to the analysis of component and system failure in service; methodology of systematic failure analysis of actual service failures; introduction to tools used in failure analysis; case studies used extensively for teaching and assignments.

5396 Special Topics in Engineering (Cross-listed as BME 5396, EGR 5396, and ELC 5396)
See EGR 5396 for course information.

5397 Special Topics in Engineering (Cross-listed as BME 5397, EGR 5397, and ELC 5397)
See EGR 5397 for course information.

5V99 Master's Thesis **1 to 6 sem. hrs.**
Students completing a master's program with a thesis must complete six hours of ME 5V99.

6V97 Engineering Research **1 to 12 sem. hrs.**
Pre-requisite(s): Consent of student's supervisory graduate committee and admission to doctoral candidacy.

Doctoral students may enroll in up to 12 semester hours of engineering research hours prior to taking the preliminary exam and being accepted into candidacy for the doctoral degree. These engineering research hours will count toward the degree.

6V99 Dissertation **1 to 6 sem. hrs.**
Required of all doctoral candidates. In no case will fewer than 12 semester hours be accepted for a dissertation. Students may not enroll for doctoral research hours until they have been officially accepted into candidacy for the doctoral degree. After initial enrollment, students must register for at least one semester hour of doctoral research every term thereafter (summer term excluded).

MEDICAL HUMANITIES (MH)

4372 End-of-Life Care & Bereavement
This course critically analyzes how healthcare professionals are involved in the dying experience with patients, families, and communities. Topics include causes of death, trauma, spirituality in grief, complicated bereavement, hospice and palliative care, physician-assisted dying, futile treatment at the end of life, and cross-cultural sensitivities.

MIDDLE EAST STUDIES (MES)

4378 Religion & Politics in the Middle East
Pre-requisite(s): Upper-level standing.

An examination of the relationship between religion and politics in select countries of the Middle East.

MODERN LANGUAGES AND CULTURES (MLC)

4376 Asian Literature in Translation (Cross-listed as AST 4376)
See AST 4376 for course information.

MUSEUM STUDIES (MST)

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5301 The Museum: History, Philosophy, Prospects

This course provides an overview of museums, the museum profession, and the field of museum studies. Students learn the defining characteristics of different types of museums, how museums have evolved over time, how museums have dealt with subjects that have proven controversial, and recent trends towards greater inclusiveness and respect for other cultures.

5304 Collections Management

Pre-requisite(s): Credit or concurrent enrollment in MST 5301.

This course examines the intellectual, physical, legal, financial, social, and ethical challenges of preserving and providing access to museum collections. Through lectures, readings, hands-on activities, and field trips, students explore the theory and practice of collections management and learn how to utilize available resources for collections care in any museum regardless of size. Fee: $50

5309 Museum Education

Pre-requisite(s): Credit or concurrent enrollment in MST 5301.

This course examines both directed/formal education and free-choice/informal learning opportunities in museums and how we effectively serve learners of all ages and learning style. An in-depth consideration of the development of programs includes assessment and needs of target audiences, presentation techniques and content selection and organization, logistics, and implementation and evaluation.

5311 Issues in Museum Administration

Pre-requisite(s): Credit or concurrent enrollment in MST 5301.

This course provides an overview of museum and non-profit administration issues, including governance, working with a board of trustees, budgetary planning, fund raising, accreditation by the American Association of Museums, and museum ethics. Students gain practical experience in writing grants and preparing a conference-level presentation covering a museum administration issue.

5312 Outreach and Community Relations

Pre-requisite(s): MST 5301.

This course provides hands-on experience in researching, creating, and executing strategies in advertising, public relations, marketing, and development/fundraising. Students explore the development of outreach techniques in the United States and create a finished marketing plan for a museum/archive/library partner institution as part of the course.

5318 Ethical Issues in Museum Collections Management

Examines the ethical issues behind the media headlines about museum collections, including such matters as the sale of collections and the patrimony of antiquities, and exploring case studies such as the return of Nazi-looted art or the repatriation of Native American collections.

5323 Historic Preservation

This course examines historic preservation, and the parallel development of historic house museums and historic villages, from early patriotic and volunteer-based efforts such as Mount Vernon, to the development of preservation professionals at Colonial Williamsburg and elsewhere, and ultimately to modern preservation organizations and preservation law as found at the national, state, and local levels. Fee: $50

5324 Archival Arrangement and Description

Introduction to the intellectual and physical organization of archival materials in all media and formats. Students examine the core principles and standards underlying the processes of arrangement and description and their application to different types of archival collections. Students put archival theory into practice, processing a small archival collection. Fee: $50

5326 Archival Technology and Digital Collections Management
Pre-requisite(s): MST 5324.

This course examines the evolution of technology in archives and museums with an emphasis on digitization, cataloging, metadata generation, and creation of contextual information. Students create a new, online-accessible digital collection derived from archival resources using technology resources of the Riley Digitization Center in the University Library system.

5327 Museum Special Topics Seminar

Seminar in which students identify subjects of particular interest within the broad field of museum study and demonstrate the rules, standards, and practices of the topic. Topics are selected on the basis of expressed interest by both students and faculty members. Maximum nine semester hours.

5328 American Material Culture

The material remains of the past provide a window into American social, cultural, and political life. Students will learn to interpret museum objects through study of the artifacts themselves through related artifacts and landscapes, and through other forms of evidence that expose their deeper meanings, including probate inventories, letters, diaries, newspapers, books, and maps. Fee: $50

5329 American Decorative Arts

This course examines American decorative arts from the seventeenth century to the mid-twentieth century, particularly furniture, silver, ceramics, glass, textiles, prints, and paintings, with emphasis on the perspectives of maker and user, the influence of Britain and other cultures, differences among regions, differences between urban and rural, and differences over time. Fee: $50

5331 Design and Management of Museum Exhibits

This course considers the public dimension of exhibit design, the needs and interests of varied audiences, different learning styles, and the best interpretive approaches. Classroom theory is combined with in-the-field application, with a particular focus on exhibit planning, teamwork and management, design elements, lighting, interpretation of objects and ideas, labels, and evaluation. Fee: $50

5333 Issues in Preservation Management
Pre-requisite(s): MST 5304.

Examines the causes of deterioration in museum collections, protective storage, collections care in use, disaster preparedness, policy development, needs assessment, funding, and preservation planning. Fee: $50

5340 Capstone: Major Issues in Museum Administration

This course is designed for the fourth semester graduate student who will soon be entering the museum job market or pursuing further graduate study. It provides students, whether they intend to pursue careers as administrators, curators, or educators with a review of the most important museum "basics," emphasizing current and projected trends in the field.

5V40 Independent Studies in Museums **1 to 4 sem. hrs.**
Pre-requisite(s): Approval of the professor and student's graduate committee required.

Students identify an individual research project related to the student's area of interest. Students formulate project objectives, develop working parameters, construct a project design, and demonstrate an ability to complete a project and describe project results. Maximum six semester hours.

5V97 Master's Internship **3 to 6 sem. hrs.**

Supervised professional work in a museum or related organization, with six semester hours required for graduation.

5V98 Professional Project **1 to 6 sem. hrs.**

Supervised preparation of a professional project, with six semester hours required for graduation.

5V99 Thesis **1 to 6 sem. hrs.**

Supervised preparation of the master's thesis, with six semester hours required for graduation.

MUSIC (MUS)

MUSIC ACADEMIC STUDIES (MUS)

4110 Advanced Jazz Improvisation

Pre-requisite(s): MUS 3310 or consent of instructor.

This course is an in-depth study of modern jazz improvisational techniques. May be repeated for credit.

4203 Electronic Studio

Pre-requisite(s): Junior standing or consent of instructor.

Fundamentals of tape recording, musique concrete techniques, and the synthesizer. Includes practical studio work and creative projects. One to two hours lecture/demonstration per week; two to three hours of individual work in the studio per week.

4204 Advanced Orchestration

Pre-requisite(s): MUS 3306.

Study of problems in orchestration beyond the general topics addressed in MUS 3306.

4208 Jazz Theory

Pre-requisite(s): MUS 1101 and 1301; and consent of instructor.

This course is an in-depth study of the harmonic and melodic basis of jazz, including the use of modes and extensions in jazz improvisation and composition, and reharmonization and analysis of performers' improvised solos. Students will develop skills in ear training and practical jazz music.

4236 Performer Wellness

Pre-requisite(s): Upper-level standing.

This course is designed to address music wellness issues and help musicians adopt a healthy approach to performance that will allow them to perform at their best. Regular performance practice will be integrated with relaxation techniques such as stretching, deep breathing, imagery, and progressive relaxation. Practice and memorization techniques to assist with performance preparation will also be covered.

4274 Congregational Song

The study of congregational music used in corporate worship. The course includes the historical development of congregational song and the analysis of its literary, scriptural, musical, and theological content.

4301 Advanced Analysis

Pre-requisite(s): MUS 3301.

Investigation of specialized topics in music analysis, with focus on a particular analytical approach or repertoire.

4304 Counterpoint

Pre-requisite(s): MUS 2102 and 2302.

Principles of modal and harmonic counterpoint.

4305 Advanced Counterpoint

Pre-requisite(s): MUS 4304.

A continuation of MUS 4304. Advanced work in specialized areas of counterpoint.

4307 Advanced Composition I
Pre-requisite(s): MUS 3304.
Continuation of MUS 3308.

4308 Advanced Composition II
Continuation of MUS 4307. Includes a recital of original works.

4320 Seminar in American Music
This seminar focuses on interpreting and understanding primary sources, both written and musical (scores), related to the various styles and approaches to the creation of American music.

4325 Opera Literature
This course examines opera from its origins in the late sixteenth century to the present. Students will learn about opera's musical and literary conventions, its development, and how operas reflect the musical and cultural values of their areas. The scores to be studied are coordinated with recorded and audio/visual examples, as well as with relevant readings from books and periodicals. Class discussion, presentations, essays, listening tests, and a final project are part of the course.

4326 American Folk Music
Folk and tribal music in the United States. Specific topics include: music of native Americans, oral tradition music of European immigrants, oral tradition music created in America, African and African-American music, the Latin American musical influence, and ethnomusicology as a discipline of study. Current and historical topics will be included. Students will participate in field research projects.

4342 American Musical Theater
Important historical, cultural, musical and production moments in the century-long narrative of the American musical theatre. Specific topics may vary from year to year. The course is designed for upper-level music majors; theatre majors and other students should consult with instructors before enrolling.

4345 History of Classical Music in the United States
Pre-requisite(s): Upper-level standing or consent of instructor.
This course introduces both music majors and non-music majors to the often-overlooked contributions of creative Americans to the field of "classical" music from the beginning of the United States' existence to the present time.

4360 Ethnographic and Analytical Methods in Ethnomusicology (Cross-listed as ANT 4361)
Pre-requisite(s): Junior standing or above.
Introduction to analytical methods, ethnography, and fieldwork techniques in ethnomusicology in order to equip students with practical tools to conduct ethnographical research and fieldwork.

4361 Traditional Music and Culture in Africa
Pre-requisite(s): Junior standing and above.
Analysis of specific African musical traditions within their cultural, geographical, historical, and social contexts as points of departure for analyzing and understanding broader patterns and dynamics of human activity.

4362 Traditional Music and Culture in Asia (Cross-listed with AST 4362)
Pre-requisite(s): Junior standing and above.
Analysis of specific Asian musical traditions within their cultural, geographical, historical, and social contexts as points of departure for analyzing and understanding broader patterns and dynamics of human activity.

4363 Traditional Music and Culture in Europe (Cross-listed as SEES 4363)
Pre-requisite(s): Junior standing and above.
Analysis of specific European musical traditions within their cultural, geographical, historical, and social contexts as points of departure for analyzing and understanding broader patterns and dynamics of human activity.

4364 Traditional Music and Culture in Latin America (Cross-listed as LAS 4364)
Pre-requisite(s): Junior standing or above.

Analysis of specific Latin American musical traditions within their cultural, geographical, historical, and social contexts as points of departure for analyzing and understanding broader patterns and dynamics of human activity.

4365 Music and Identity in Texas Culture

Analysis of specific Texas musical traditions within their cultural, historical, and social contexts as points of departure for analyzing broader patterns and dynamics of human activity reinforcing identity.

4366 Performance Practices in World Music
Pre-requisite(s): Junior level standing and consent of instructor.

Academic approach to a variety of performance practice techniques used in traditional and urban musical genres around the world.

4373 Worship in the Church

A study of the music in worship from biblical times to the present. Includes strengthening worship leadership and planning skills and thereby connecting the principles and practice of music making in worship to the broader life of the Church in a local context.

4374 The Song of the Church (cross-listed as THEO 7397)

A survey of vocal music in the Christian church, with particular emphasis upon the literary, scriptural, theological, musical, historical, and performance background of congregational song, and an introduction to selected standard sacred choral literature.

4V09 Advanced Electronic Studio 1 to 3 sem. hrs.
Pre-requisite(s): MUS 4203 and consent of instructor.

A continuation of MUS 4203. Material covered includes fixed and interactive electroacoustic music; linear and non-linear computer music composition; study of electronic music literature. At least one substantial creative project will be completed. Course may be repeated for credit.

5010 Academic Division Colloquium

This course is oriented to the development and practical application of the student's critical thinking process through lectures and presentations related to the academic field in music.

5011 Graduate Music History Review

A remedial course for incoming graduate students who show multiple deficiencies on the Music History diagnostic exam. All major periods will be covered, but the course will focus on the specific needs of the students enrolled. Students who pass this course may enroll for any graduate level music history course.

5037 Church Music Forum

Graduate enrollment in Church Music Forum (see MUS 1007, Undergraduate catalog, for description).

5100 Music Theory Review

Review of part writing, ear training, analysis, and keyboard procedures. Required of graduate students who show deficiencies in theory on the graduate entrance test. Does not count as degree credit.

5113 Internship in Music

This course provides graduate music students an opportunity to apply what they have been learning in the classroom to practice in their field of study.

5141 Performance Document
Writing of a document to accompany the M.M. student's recital. The document will give historical background and analysis of works performed. Document must be completed before recital is given.

5201 Pedagogy of Theory
Survey of materials and methods for teaching theory at high school and college levels.

5207 Graduate Composition I
Master's level instruction in composition in twentieth-century idioms through the creation of original pieces, supplemented by analysis and pertinent auxiliary exercises.

5208 Graduate Composition II
Continuation of MUS 5207.

5209 Graduation Composition III
Continuation of MUS 5208.

5240 Music and Worship in the Church (Cross-listed as THEO 7290)
Pre-requisite(s): MUS 3273 or consent of instructor.
A seminar focusing on understanding, preparing for, and practicing Christian worship in the church, with particular emphasis upon the role(s) of music.

5241 Congregational Song (Cross-listed as THEO 7291)
Pre-requisite(s): MUS 3274 or consent of instructor.
A seminar emphasizing student research on contemporary hymnody, the practice of congregational song, and selected aspects of the history of the church's song.

5242 Seminar in Music Ministry (Cross-listed as THEO 7292)
A study of the philosophy and various administrative and ministerial aspects of music in the church, including principles of organization and pastoral care.

5243 Church Music Ministry (cross-listed as THEO 7298)
An intensive review course for students who do not have an undergraduate church music degree. Topics include age group ministries, church music administration, and philosophy of church music.

5244 History of American Church Music (Cross-listed as THEO 7294)
A survey of church music practices and literature in the U.S.A. from 1560 to the present.

5245 Turning Points in Church Music (Cross-listed as THEO 7295)
A study of major turning points in the history of church music including analysis and application to current issues.

5246 Comparative Liturgies (Cross-listed with THEO 7296)
A study of Christian worship from various historical periods and cultures, with particular emphasis upon the role(s) of music in the formative Western liturgies.

5247 Choral/Vocal Music Ministries in the Church (Cross-listed as THEO 7293)
A seminar on various types of church vocal ensembles, including rehearsal techniques, organization, recruitment, and the use of these groups in enhancing the spiritual life of the church and community.

5248 Worship Leadership Practicum (cross-listed with THEO 7299)
Develops the understanding and functional skill set required to design and lead worship effectively.

5301 History of Music Theory
Theorists and theoretical tracts from the ancient Greeks to the present day.

5302 Analytical Techniques
Pre-requisite(s): Passing score on the Graduate Music Theory Diagnostic Exam or passing grade in MUS 5100.
A survey and application of analytical approaches and techniques currently employed in the study of music. Required of all graduate students.

5319 Foundations and Trends in Ethnomusicology
Pre-requisite(s): MUS 5320.
History, philosophies, and issues concerning the discipline of ethnomusicology as illustrated in significant selected literature. Advanced research procedures are applied to a selected topic.

5320 Research Methods and Bibliography
Resources, research procedures, and writing techniques for music scholarship.

5321 Seminar in The Middle Ages
Pre-requisite(s): MUS 5320.
Selected topics on medieval music in historical and cultural context.

5322 Seminar in The Renaissance Era
Pre-requisite(s): MUS 5320.
Selected topics on renaissance music in historical and cultural context.

5323 Seminar in The Baroque Era
Pre-requisite(s): MUS 5320.
Selected topics on baroque music in historical and cultural context.

5325 Seminar in The Classic Era
Pre-requisite(s): MUS 5320.
Selected topics on music of the long eighteenth century in historical and cultural context.

5326 Seminar in The Romantic Era
Pre-requisite(s): MUS 5320.
Selected topics on music of the long nineteenth century in historical and cultural context.

5328 Seminar in Music of World War I to the Present
Pre-requisite(s): MUS 5320
Selected topics on music from WWI to the present in historical and cultural context.

5329 Foundations and Trends in Musicology
Pre-requisite(s): MUS 5320.
History, philosophies, and issues concerning the discipline of musicology as illustrated in significant selected literature. Advanced research procedures are applied to a selected topic.

5355 Analysis Seminar
Intensive structural and harmonic analysis of a selected composer or period. The course may be repeated once for credit.

6341 Introduction to Research in Church Music
An introduction to the methodology of scholarly research and writing in church music. A study of bibliography, research technology, and methods of research, specifically as they relate to church music.

6342 Research in Congregational Song
A study of the history, philosophy, theology, and practice of congregational song. Major components of this study will include reliance upon primary sources as well as study of key persons.

6343 Research in Church Music History

An in-depth study of selected significant developments, movements, and people in the history of church music. Congregational song, which is covered in Music 6342, will be largely excluded from this course.

6344 Research in Church Music Philosophy

An exploration and evaluation of the goals, motivations, responsibilities, and parameters affecting the use of music in congregational settings. Congregational song, which is covered in Music 6342, will be largely excluded from this course.

6345 Research in Christian Worship

Provides in-depth study of the history, philosophy, and practice of liturgy and worship, with particular attention to the role of music.

6346 Research in Music Ministry

A seminar that addresses various components of music ministry and their history, relationship to traditional pastoral ministry, relationship to current worship practices, and future in the life and work of local congregations.

6347 Research in Sacred Choral Music

A study of the repertory, functions, and performing forces of sacred choral music in various genres and periods of musical and church history.

6348 Professional Development and Teaching Practicum

A course that assists church music professionals in gaining information and skills for launching effective careers in teaching or church music ministry. Subjects may include securing a position, understanding higher education, various approaches to research resulting in publication and scholarly presentation, curriculum and course design, teaching effectiveness, and college music administration.

6V10 Doctoral Performance Document 1 to 3 sem. hrs.

Writing of a document to accompany the D.M.A. student's second recital. The document will give historical background and analysis of works performed. Document must be completed before recital is given.

6V99 Dissertation

Research, data analysis, writing, and oral/written defense of an approved doctoral dissertation. At least nine hours of MUS 6V99 are required.

5345 Leadership for Ministry (Cross-listed as LEAD 7301)

A survey of leadership theory and practice including biblical, historical, and contemporary perspectives.

6V07 Composition

Doctoral level instruction in composition in modern idioms through the creation of original musical works, analysis, and auxiliary exercises. Normally taken for three credit hours; taken for two credit hours when enrolled concurrently in MUS 5170 Graduate Recital or with advisor approval.

MUSIC CONDUCTING (MUS)

4259 Fundamentals of Conducting

Introduction to advanced conducting techniques. Focus will be on strengthening skills from undergraduate conducting courses and building strategies for score preparation, knowledge, and facility.

4260 Orchestral Conducting

Pre-requisite(s): MUS 3260.

Advanced study of instrumental conducting techniques and related preparation and score study, specifically applied to orchestral ensembles.

4261 Advance Choral Conducting
Pre-requisite(s): MUS 3261.
Advanced study of choral conducting techniques and related preparation and score study, specifically applied to choral ensembles.

4262 Band Conducting
Pre-requisite(s): MUS 3260.
Advanced study of instrumental conducting techniques and related preparation and score study, specifically applied to bands and wind ensembles.

4321 Symphonic Literature
A survey of orchestral literature.

4331 Band Literature
Literature for wind ensemble and band from early sources to the present.

4337 Choral Literature
Pre-requisite(s): MUS 3261.
Secular and religious choral music representing style periods from the late Renaissance to the present.

5171 Conducting Performance Project
Practical application of conducting skills in a full-scale concert.

5265 Orchestral Conducting Performance Practicum
Pre-requisite(s): MUS 4260.
To provide the student a regularly mentored rehearsal and performing experience.

5266 Choral Conducting Performance Practicum
Pre-requisite(s): MUS 4261.
To provide the student a regularly mentored rehearsal and performing experience.

5267 Band Conducting Performance Practicum
Pre-requisite(s): MUS 4262.
To provide the student a regularly mentored rehearsal and performing experience.

5270 Applied Conducting
Pre-requisite(s): Enrollment restricted to graduate conducting majors and church music majors with conducting emphasis.
Private conducting lessons. This course is open only to conducting majors on the M.M. degree and will normally be taken in semesters when the student is not registered for the concentration conducting course or Performance Practicum. Fee: $302

5337 Choral Literature
Choral literature representing style periods from the late renaissance to the present with emphasis upon large works.

MUSIC INSTRUMENTAL STUDIES (MUS)

4333 Percussion Literature and Pedagogy
Solo and chamber music and pedagogy for percussion instruments.

4334 String Chamber Literature
Chamber music for string instruments.

4335 Woodwind Literature and Pedagogy
Solo and chamber music literature and pedagogy for woodwind instruments.

4336 Brass Literature and Pedagogy
Solo and chamber music and pedagogy for brass instruments.

MUSIC KEYBOARD STUDIES (MUS)

4210 Organ Methods
For prospective organ teachers: methods and materials; church and concert repertoire.

4213 Service Playing
Pre-requisite(s): Organ major or consent of instructor.
Study of techniques and resources for organ playing in the context of a worship service.

4315 Advanced Piano Pedagogy and Practicum I
Comprehensive study and practical experiences of the group teaching process at the collegiate level. Lesson planning, group dynamics, materials, the electronic laboratory, and the different types of instruction are included.

4316 Advanced Piano Pedagogy and Practicum II
Pre-requisite(s): MUS 4315.
Continuation of MUS 4315.

4317 Piano Pedagogy III
Pre-requisite(s): MUS 3312.
Examination and evaluation of standard literature, teaching materials and music technology for the intermediate student. Exploring issues related to the piano teaching profession. Directed teaching in the Piano Laboratory Program, both individual and group lesson settings.

4322 Piano Literature I
Pre-requisite(s): For music majors only or consent of instructor.
Literature of keyboard instruments from early sources to the early nineteenth century.

4324 Piano Literature II
Pre-requisite(s): Enrollment limited to music majors or consent of instructor.
Literature of keyboard instruments from the mid-nineteenth century to the present.

4343 Organ Literature I
The organ and its literature from the earliest manuscripts and tablatures through 1750.

4344 Organ Literature II
The organ and its literature from 1750 to the present.

4V13 Workshop in Keyboard Music **1 to 9 sem. hrs.**
An intensive workshop on keyboard methods and materials.

5036 Studio Collaborative Piano
Graduate enrollment in collaborative piano (see MUS 0136, Undergraduate catalog, for description).

5114 Internship in Piano Teaching I
Pre-requisite(s): Consent of instructor.
Teaching of children's classes, college classes, adult leisure piano, or private lessons under faculty supervision. Designed to broaden the student's prior teaching experience.

5115 Internship in Piano Teaching II
Pre-requisite(s): MUS 5114 and consent of instructor.
Continuation of MUS 5114.

5116 Research Project in Piano Pedagogy

The research project in piano pedagogy is a terminal requirement for the master's degree in Piano Pedagogy and Performance. Students enroll in two hours of MUS 5116 during the final two semesters of the degree program. While taking the course they complete the document while meeting regularly with their supervisor.

5136 Studio Collaborative Piano

Course only available for students in the Advanced Performance Certificate in piano or organ.

5138 Sight-reading for Pianists

This course focuses on the development of sight-reading skills for pianists. In-class activities and regular practice assignments help the student identify weaknesses and improve sight-reading abilities. Intended for piano majors.

5150 Seminar in Vocal Performance and Pedagogy

Practicum for advanced vocalists in aspects of the singer's art, involving performance and research. May be repeated once for credit.

5252 Seminar in Vocal Collaboration I

Pre-requisite(s): Undergraduate major/concentration in piano or equivalent background.

Standard opera and concert repertoire for the voice in a two-semester sequence: Semester I--Opera Arias, Italian Canzone, English Songs. Graduate pianists collaborate with fellow student vocalists in master class performances. Critique and coaching by director of collaborative piano.

5253 Seminar in Vocal Accompanying II

Pre-requisite(s): MUS 5252.

Continuation of MUS 5252. Semester II: German Lied, French Chanson and Melodie.

5254 Seminar in Instrumental Collaboration I

Pre-requisite(s): MUS 5252 and 5253.

A two-semester survey of the standard sonata repertoire for the following instruments: Semester I - strings. Graduate students in piano will collaborate with fellow student instrumentalists in master class performances. Critique and coaching by director of collaborative piano.

5255 Seminar in Instrumental Collaboration II

Pre-requisite(s): Undergraduate major/concentration in piano or equivalent.

Continuation of MUS 5254. Semester II: woodwinds, brasses, and percussion.

MUSIC EDUCATION (MUS)

4219 Marching Band/Jazz Pedagogy

Philosophy, materials, and techniques of high school marching bands and jazz ensembles.

4350 International Music Education

An exploration of music education practices in international school settings, including curricular comparisons, student populations, and program configurations. Attention will be given to any specialized procedures required for those interested in teaching in international environments post-graduation. This course may be repeated once.

5137 Graduate Seminar in Music Education

A topical study of significant issues in Music Education. Focus of the course will vary by semester. May be repeated for up to four hours credit.

5330 Trends in Music Education

New music-teaching methods and instructional media, recent research, and current thought on the philosophy and psychology of music education.

5332 Research in Music Education

An in-depth study of research in music education focusing on three modes of inquiry: historical, philosophical, and empirical. Included are concepts and techniques in design, data collection, and analysis.

5334 Introduction to Graduate Study in Music Education

An introduction to the study of music education, focused on the history and philosophy of music education in the U.S. and abroad. Included are bibliographical concepts and procedures for reading, interpreting, and summarizing research in music education.

MUSIC (GENERAL) (MUS)

4381 Special Topics

An in-depth study of a narrowly circumscribed topic, such as a composer or genre. This course provides the opportunity to utilize special skills and knowledge of outstanding resident or visiting faculty. May be repeated for credit.

50R1 Special Recital

Pre-requisite(s): Consent of instructor.

Presentation of a recital over and above degree requirements. Fee: $50

5170 Graduate Recital

Graduate recitals consist of repertoire learned while the student is in residence for the degree. Guidelines for approval and presentation of these programs are available from the Graduate Program Director. Fee: $50

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5V89 Special Research Problems **1 to 3 sem. hrs.**

Pre-requisite(s): MUS 5320.

Advanced individual research project in the student's major field of interest under the guidance of a member of the Graduate Faculty. Subject of research to be agreed upon by the student and professor and approved by the Graduate Program Director prior to registration. The area of study may not duplicate directly any material pertaining to the thesis, nor may the study substitute for any required course. Course may be repeated, with different topic(s), for a maximum total of seven hours.

5V99 Thesis **1 to 3 sem. hrs.**

4121 Performing Recitative

Development of process-based skill sets for learning to sing and perform recitative, primarily in operas by Handel, Mozart, and bel canto composers. Topics include comparing recitativo secco and recitativo accompagnato and the practical performance techniques involved, applying concepts of lyric diction to the learning process, and mastering finer points such as style, pacing, appoggiature, word play, optional rests, and character development.

4237 Creative Entrepreneurship in Music

Pre-requisite(s): Music majors only.

Development of fundamental skills music-based entrepreneurship, and creative thinking beyond the practice room as preparation for 21st-century careers in music.

MUSIC VOCAL STUDIES (MUS)

4120 Advanced Opera Workshop
Pre-requisite(s): Consent of instructor.

Advanced Opera Workshop is an intensive class for advanced singers who aspire to careers in Opera and/or Musical Theatre. In this class students receive intensive one-on-one instruction on their "audition aria package." An accompanist is assigned for the course and students coach each aria or piece of musical theatre to polish it for professional auditions. Students will also have the opportunity to obtain one-on-one help with their professional credentials, taxes as artists and other items as needed. Since one-on-one instruction is the key to the success of this class the number of students enrolled must be limited. Therefore, undergraduates who wish to take this class must receive a nomination from their Vocal Instructor prior to asking for permission from the instructor of the course. Repeatable for credit.

4216 Opera Project I
Pre-requisite(s): Audition and/or consent of instructor.

Training class for singers and choral conducting students in stage techniques.

4218 Opera Project II
Pre-requisite(s): Audition and/or consent of instructor.

Training class for singers and choral-conducting students in stage techniques.

4220 Acting for Singers I
Pre-requisite(s): Consent of instructor.

Acting for Singers I is a beginning acting course for the stage specifically designed to provide appropriate training in acting for young singers who aspire to stage careers in Opera and/or Musical Theatre. The course includes instruction in basic stage deportment for recitals and auditions and is also appropriate for students who plan to teach young vocalists in the future, particularly those called upon to teach Opera Workshop or direct an Opera Scenes Program at the University level and/or direct a Musical Production at the high-school level.

4221 Acting for Singers II
Pre-requisite(s): MUS 4220.

Acting for Singers II is the second of two courses designed to provide appropriate training in acting for young singers who aspire to stage careers in Opera and/or Musical Theatre. This course will focus on the individual student rather than the larger group. Students will deal with problems specific to opera and musical theatre including acting within the time-frame of the composer, necessity of singing out to the audience at all times and connection with the conductor during performances. This course is appropriate for aspiring young artists as well as prospective teachers in the fields of vocal and choral music. Prior to taking this course a student should have taken Acting for Singers I or an equivalent.

4299 Vocal Pedagogy

A study of the singing voice including anatomy and physiology of the larynx and the breathing mechanism, phonation, basic acoustics, vocal registers, vocal pathologies, and hygiene, among other related subjects.

4319 Operatic Role Preparation
Pre-requisite(s): MUS 0104 or 5004; upper-level standing.

Role Preparation will cover the research into the genesis of a specific opera as well as the music of a role from that opera. Students will have the opportunity to learn operatic roles that they, and their applied voice teacher, feel are appropriate for their voices and abilities. Students will then receive musical and dramatic coaching on their roles and will present semi-staged or concert versions of their roles at the end of the semester. May be repeated once for credit.

4327 Song Literature I
Music for solo voice from its beginnings to the present.

4329 Song Literature II
Continuation of MUS 4327.

5151 Advanced Vocal Coaching
Pre-requisite(s): Consent of instructor.
Advanced individual study of solo vocal repertoire for graduate students preparing for recitals, contests, and auditions. May be repeated for a maximum of six total credit hours, but only four credit hours may be used to satisfy degree requirements.

5152 Graduate Diction Review
A comprehensive review of the lyric diction of Italian, German and French. Required of graduate students who demonstrate deficiencies in diction on the graduate entrance examination. Does not count as degree credit.

5153 Graduate Russian Lyric Diction
Special laboratory course for voice students dealing with pronunciation and enunciation as applied to singing in Russian. Additional emphasis is placed on Russian song and aria repertoire.

OTHER MUSIC (MUS)

5136 Studio Collaborative Piano
Course only available for students in the Advanced Performance Certificate in piano or organ.

MUSIC ENSEMBLE (MUEN)

5025 Baylor Bronze
Graduate enrollment in Baylor Bronze (see MUEN 1125, Undergraduate catalog, for description).

5026 Baylor Handbell Ensemble

5030 Chamber Music (Strings)
Graduate enrollment in string chamber music (see MUEN 1130, Undergraduate catalog, for description).

5031 Chamber Music (Brass)
Graduate enrollment in brass chamber music (see MUEN 1131, Undergraduate catalog, for description).

5032 Chamber Music (Woodwinds)
Graduate enrollment in woodwind chamber music (see MUEN 1132, Undergraduate catalog, for description).

5033 Chamber Music (Percussion)
Graduate enrollment in percussion chamber music (see MUEN 1133, Undergraduate catalog, for description).

5130 Chamber Music (Strings)
Graduate enrollment in chamber music with strings for students in the Advanced performers Certificate program in piano or organ.

5131 Chamber Music (Brass)
Graduate enrollment in chamber music with brass for students in the Advanced Performers Certificate program in piano or organ.

5132 Chamber Music (Woodwinds)
Graduate enrollment in chamber music with woodwinds for students in the Advanced Performers Certificate program in piano or organ.

5133 Chamber Music (Percussion)
Graduate enrollment in chamber music with percussion for students in the Advanced Performers Certificate program in piano or organ.

5035 Piano Ensemble
Graduate enrollment in piano ensemble (see MUEN 1135, Undergraduate catalog, for description).

5001 Orchestra
Graduate enrollment in Orchestra (see MUEN 1101, Undergraduate catalog, for description).

5002 A Cappella Choir
Graduate enrollment in A Cappella Choir (see MUEN 1100, Undergraduate catalog, for description). Fee: $50

5003 Symphonic Band
Graduate enrollment in Symphonic Band (see MUEN 1103, Undergraduate catalog, for description).

5004 Opera
Graduate enrollment in Opera (see MUEN 1104, Undergraduate Catalog, for description).

5005 Chamber Singers
Graduate enrollment in Chamber Singers (see MUS 1105, Undergraduate catalog, for description). Lab fee $50.

5006 Jazz Ensemble
Graduate enrollment in Jazz Ensemble (see MUEN 1106, Undergraduate catalog, for description).

5007 Concert Choir
Graduate enrollment in Concert Choir (see MUEN 1107, Undergraduate catalog, for description). Fee: $50

5008 Wind Ensemble
Graduate enrollment in Wind Ensemble (see MUEN 1108, Undergraduate catalog, for description).

5009 Concert Band
Graduate enrollment in Concert Band (see MUEN 1109, Undergraduate catalog, for description).

5020 Early Music Ensemble
Graduate enrollment in Early Music Ensembler (see MUEN 1120, Undergraduate catalog, for description).

5021 Baylor University Men's Choir
Graduate enrollment in Baylor University Men's Choir (see MUEN 1121, Undergraduate catalog, for description). Lab fee $50.

5022 Small Vocal Ensemble
Graduate enrollment in Small Vocal Ensemble (see MUEN 1122, Undergraduate catalog, for description). Lab fee $50.

5024 Women's Choir

Graduate enrollment in Women's Choir (see MUEN 1124, Undergraduate catalog, for description). Lab fee $50.

5050 Ensemble

Participation in various ensembles of the School of Music.

5093 Baylor Bella Voce - Advanced Women's Ensemble

Pre-requisite(s): By Audition/Consent of Instructor (Conductor)

Baylor Bella Voce is a highly select treble choir open primarily to music majors (voice majors, choral music education majors and church music majors) at the graduate level. Lab fee $50.

NEUROSCIENCE (NSC)

4130 Laboratory in Behavioral Neuroscience (Cross-listed as PSY 4130)

Pre-requisite(s): NSC/PSY 4330 or concurrent enrollment.

Laboratory experiments illustrating methods and procedures in Behavioral Neuroscience. Fee: $100

4312 Behavioral Medicine (Cross-listed as PSY 4312)

Pre-requisite(s): NSC 1106 and 1306 or consent of instructor.

Topics include the role of mind, brain, and behavior in health, disease and wellness; the history, philosophy, and current status of health care systems; physiological and behavioral analyses of stress; psychoneuroimmunology; behavioral factors in cardiovascular disease, cancer, drug abuse, and weight management.

4330 Behavioral Neuroscience (Cross-listed as PSY 4330)

Pre-requisite(s): NSC 1106-1306 and PSY 1305, or consent of instructor.

A study of the structure and function of the human nervous system as related to behavior.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5311 Seminar in Memory and Cognition (Cross-listed as PSY 5311)

Pre-requisite(s): Consent of instructor.

An advanced treatment of the study of human cognition. Topics to include memory, language, problem solving, intelligence, and thinking.

5318 Perception (Cross-listed as PSY 5318)

Research and theory on sensory and perceptual processes.

5319 Clinical Neuroscience - Advanced (Cross-listed as PSY 5319)

Pre-requisite(s): PSY 4430 or 5330, or consent of instructor.

Neuroanatomy, brain structure-function relationships, experimental neuropsychology, and biological theories of abnormal behavior.

5320 Learning and Behavior Theory (Cross-listed as PSY 5320)

Pre-requisite(s): Consent of instructor.

Methods of theories of learning and Behavioral Analysis.

5330 Neuropharmacology (Cross-listed as PSY 5330)

Introduction to pharmacology with emphasis on drugs that act on the nervous system. Absorption distribution and biotransformation of drugs. Drug receptors, site and mechanism of action.

5360 Neurophysiology (Cross-listed as PSY 5360)
Pre-requisite(s): Consent of instructor.
Electrical and chemical behavior of neurons--excitable membranes, cell physiology of nerve cells, neural conduction, transmission, reception and integration. Fee: $50

5430 Neuroanatomy (Cross-listed as PSY 5430)
Pre-requisite(s): Consent of instructor.
Selected topics in physiological psychology, including laboratory. Fee: $50

5V04 Graduate Research
Pre-requisite(s): Consent of instructor.
For research credit prior to admission to candidacy for an advanced degree. May be repeated for credit.

5V06 Individual Studies in Neuroscience 1 to 3 sem. hrs.
Individual study in areas of neuroscience not covered by formal courses. Meetings are by appointment, and the course may be repeated for credit.

5V51 Supervised Teaching (Cross-listed as PSY 5V51) 1 to 3 sem. hrs.
Advanced study in an area of psychology not covered by formal courses. Course may be repeated with a different topic of study.

5V71 Selected Topics in Neuroscience 1 to 9 sem. hrs.
Advanced study in an area of neuroscience not covered by formal courses. Course may be repeated with a different topic of study.

5V96 Research Methods in Neuroscience 1 to 12 sem. hrs.
Selected laboratory methods and techniques in experimental psychology.

5V99 Thesis 1 to 3 sem. hrs.
Research, data analysis, writing, and oral defense of an approved master's thesis. At least three hours are required.

6V10 Prospectus Research (Cross-listed as PSY 6V10)
See PSY 6V10 for course information.

6V99 Dissertation1 to 12 sem. hrs.
Supervised research for the doctoral dissertation. These hours may be distributed over more than one semester.

NURSING (NUR)

4309 Parish Nursing
Pre-requisite(s): Consent of the instructor.
Basic preparation to function as a parish/congregation nurse in a faith-based health ministry. This course includes theory related to the theology of health, healing, and wholeness. Roles and functions of the parish nurse are discussed. Emphasis is placed on how to begin a parish nurse ministry including legal and ethical considerations.

5140 Professional Issues and the History of Nurse-Midwifery
The role and image of, and misconceptions about, the nurse-midwife in contemporary society are explored. The historic, political, social, and economic bases of nurse-midwifery practice are examined. Students become familiar with the role of the American College of Nurse-Midwives (ACNM) in professional practice and resources available through the ACNM, as well as regulations and legislation which guide, interpret, and provide a legal and ethical base for future nurse-midwifery practice. Fee: $50

5152 Special Studies in Advanced Health Assessment/Promotion/Disease Prevention
Pre-requisite(s): NUR 5350 or concurrent enrollment and successful completion of a graduate level 3-hour Advanced Assessment course from an accredited university/college or approval of faculty.

Physical, psychosocial, spiritual, and cultural assessments across the lifespan are studied in order for the individual to have a current and complete knowledge in the area. Advanced health assessment skills and clinical diagnostic techniques combined with disease prevention concepts and techniques are taught and applied. Fee: $50

5153 Advanced Practice FNP I & NM I Primary Care Practicum
Co-requisite(s): NUR 5255 or consent of faculty.
Pre-requisite(s): NUR 5232, 5233, 5351, and 5452.

Beginning diagnosis and treatment of common acute and chronic illnesses seen by the family nurse practitioner for selected body systems. Fee: $50

5163 Advanced Assessment and Diagnostics of the Newborn/Infant Practicum
Corequisite(s): NUR 5262 and 5233.
Pre-requisite(s): NUR 5232 and 5361.

The student gains clinical experience in assessing the health care needs of healthy and at-risk newborns/infants and their families. This practicum focuses on assessment and evaluation of care to families with at-risk factors during all phases of the childbearing process (antenatal, intra-partum, post-partum, and neonatal periods) with an emphasis on obtaining and interpreting comprehensive assessment and diagnostic data. Fee: $130

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate. Fee: $50

5207 Role of the Nurse Educator

Philosophy and history of nursing education and expectations of nursing faculty. Current issues, trends and research in nursing education are examined. Emphasis is on socialization into the role of the nurse educator as a faculty member, including rights and responsibilities in academia. Fee: $50

5209 Theoretical Concepts for the Advanced Practice Registered Nurse
Pre-requisite(s): Basic statistics course and Graduate level standing.

This course focuses on critical analyses of theory and its applicability for advanced practice nursing. The course explores the theoretical foundation of advanced practice nursing through analysis of selected nursing models, theories, and constructs as well as selected theories, models, and concepts from complementary sciences that enhance nursing as a scientific discipline. The relationship between theory and research and their application to advanced practice is explored. Fee: $50

5211 Servant Leadership and Advanced Practice Nursing
Pre-requisite(s): Graduate-level standing.

Application of nursing leadership theories and models in the delivery of advanced practice nursing care to culturally diverse clients (individuals, families, organizations, and global society). Fee: $50

5232 Advanced Human Pathophysiology I

This course focuses on developing an advanced knowledge base of pathophysiology across the lifespan for advanced nursing practice. The principles and laws that govern the life-process, well-being, and optimal function of human beings, sick or well, will be explored. Attention will be given to etiology, pathogenesis, and developmental and environmental influences, as well as clinical manifestations of major health problems. Fee: $50

5233 Advanced Human Pathophysiology II

This course focuses on the continuation of developing an advanced knowledge base of pathophysiology across the lifespan for advanced nursing practice. The principles and laws that govern the life-process, well-being, and optimal function of human beings, sick or well, will be explored. Attention will be given to etiology, pathogenesis, and developmental/environmental influences, as well as clinical manifestations of major health problems. Fee: $50

5242 Nurse-Midwifery II A: Women's Health

Pre-requisite(s): NUR 5452.

This course provides students with the knowledge and skills necessary to promote health, maintain wellness, and manage common health problems in pregnant and postpartum women in the ambulatory setting. Fee: $50.

5243 Nurse-Midwifery II B: Women's Health and Gynecologic Care

Pre-requisites: NUR 5452.

This course provides students with the knowledge and skills necessary to promote health, maintain wellness, and care for women presenting for family planning and well women visits and women seeking care for gynecologic problems and conditions across the lifespan.

5248 Nurse-Midwifery IV: High Risk Family Practicum

Pre-requisite(s): NUR 5346 or concurrent enrollment.

A clinical course that focuses on application of the Nurse-Midwifery process to the care of mothers and newborns with complications. The goal of this course is to further develop the role and responsibilities of the health care provider in caring for women and families who have a high-risk situation or condition. This knowledge is continuously acquired and builds upon previous and concurrent courses. This course is specifically built upon the acquisition of information from the course NUR 5345: Nurse-Midwifery III: Childbearing Family. Fee: $50

5250 Advanced Family Practice III/Low Resource Clinical

Pre-requisite(s): NUR 5255 and 5153. Approval by faculty and program coordinator required. The clinical site will be arranged by student with help from faculty and must be with a qualified preceptor that meets approval of program coordinator and Baylor University policy and procedure.

Continuing evaluation and management of common acute and chronic illnesses seen by the family nurse practitioner with a particular focus on medically underserved/low-resource individuals. A systematic approach to the treatment options across the lifespan is studied for all body systems. Students are given the opportunity to progress toward increasing independence in clinical practice. Fee: $50

5251 Family Nurse Practitioner International Clinical

Pre-requisite(s): NUR 5356 and 5359.

An International Clinical Course that will require cross-cultural independent clinical management of acute and chronic illnesses across the life span and focus on health-related issues relevant to a targeted international population, with the majority of the clinical hours to be completed in an international location. Fee: $50

5255 FNP I & NM I: Primary Care for APRNs

Pre-requisite(s): NUR 5232, 5233, 5351, and 5452.

This course is the refinement of diagnostic reasoning strategies needed for primary care management of patients with commonly occurring health problems. This course provides students the knowledge and skills necessary to promote health, prevent illness, and manage the common primary care needs of individuals of all ages, from a variety of cultural, ethnic, and racial backgrounds, while providing the conceptual basis for advanced nursing practice. Fee: $50.

5262 Advanced Assessment and Diagnostics of the Newborn/Infant
Co-requisite(s): NUR 5163 and 5233.
Pre-requisite(s): NUR 5232 and 5361.

The course focuses on the knowledge and skills necessary to perform comprehensive physical assessments and interpretation of diagnostic data on newborns/infants and their families. Systematic data collection, diagnostic reason, and clinical problem solving for a variety of newborns and infants is emphasized. Content focuses on perinatal assessment, fetal assessment, gestational age assessment, neurobehavioral and developmental assessments of newborns and infants, and the use of diagnostics such as laboratory studies, radiographs, instrumentation, and monitoring devices. Fee: $50

5266 Advanced Neonatal Nursing Practicum I
Pre-requisite(s): NUR 5163 and 5262.

This practicum focuses on developing clinical competency in the advanced practice role and in the pathophysiology, stabilization, management, and evaluation of the stable and acute high-risk newborn/infant. By using the processes of expert practice, consultation, collaboration, administration, and research utilization, the student provides advanced nursing management to a caseload of hospitalized newborns/infants and their families. Students are given the opportunity to progress toward increasing independence in clinical practice. Fee: $130

5274 Women's Health Across the Lifespan

Using a developmental, socio-political context, this didactic course prepares the advanced practice nurse to provide comprehensive care to women from adolescence throughout the lifespan, with an emphasis on reproductive-gynecologic health. Principles of health promotion, disease prevention, assessment, and management of common primary health issues of women are presented.

5280 Health Informatics and Innovations in Technology

This course focuses on obtaining, analyzing, and using information to make patient-centered decisions and solve problems. The integration of current emerging technologies into practice to enhance care outcomes is explored.

5283 Ethics and Cultural Competence for Nurse Leaders

This course exposes students to the principles and practice of ethics in healthcare settings. The ethical challenges of providing quality care in today's economy are explored. This course also defines culture and cultural competence and examines ways that cultures intersect with health issues and human resource management.

5287 Professionalism of the Exemplary Nurse Leader

This course examines key elements for becoming an exemplary professional nurse leader. Strategies for success, such as certification, collaboration, mentoring, maintaining competency, and advocacy are discussed. Reflective practices and developing life-long learning skills to enhance career trajectory are explored.

5290 Innovative and Global Nursing Practice/Missions

This course explores the provision of health care to medically underserved or vulnerable populations locally, nationally, and internationally. The challenges of the global environment that require creative and innovative changes in health care are examined. Accountable Care Organizations, Non-Governmental Organizations, and models of care delivery and coordination are explored. Cross-cultural mission clinics or outreach activities to meet the needs of vulnerable populations are analyzed.

5300 Primary Care Pediatric Management for the Family Nurse Practitioner

This course prepares the FNP student to address primary health care needs of pediatric patients from birth to adolescence. The course focuses on normal growth and development, health maintenance, and promotion of wellness, as well as management of acute and chronic illness in children.

5302 Principles of Learning, Instruction, and Evaluation
Pre-requisite(s): Admission to the Graduate Program.

Theories of teaching, learning and evaluation related to nursing education and practice. Focus is on selected teaching and evaluation techniques, and their implementation in nursing courses within a curricular framework. Fee: $50

5304 Curriculum Development in Nursing
Pre-requisite(s): Admission to the Graduate Program.

Analysis and application of theory and principles for planning, developing, and evaluating nursing curricula. Focus is on conceptual frameworks, which determine course organization and course content in both didactic and clinical settings. Fee: $50

5312 The Roles and Business of the Advanced Practice Registered Nurse (APRN)

This course covers the analysis and synthesis of the multidimensional role and responsibilities of advanced practice nursing. This includes the financial role and responsibilities of Advanced Practice Registered Nurses. The business aspects of being an Advanced Practice Registered Nurse are included. Fee: $50

5314 Scientific Inquiry
Pre-requisite(s): A graduate level statistics course.

The course emphasizes the critical appraisal and synthesis of evidence derived from quantitative and qualitative research and the relevance of the evidence to advanced practice. Skills necessary for evidence-based practice are developed. Fee: $50

5344 Nurse-Midwifery III: Care of the Childbearing Family
Pre-requisite(s): NUR 5V43.

This course focuses on application of the Nurse-Midwifery process for the care of healthy women during childbirth and the newborn. Fee: $50

5345 Nurse-Midwifery III: Care of the Childbearing Family Practicum
Pre-requisite(s): NUR 5344 or concurrent enrollment.

This course provides students with clinical experiences to demonstrate synthesis, integration, and translation of the knowledge and skills necessary to promote health, maintain wellness, and manage common health problems in women experiencing childbirth and in the care of the essentially normal newborn. Use of information technology in the clinical practice setting is expected. The nurse-midwifery management model of care is used in the provision of care to clients. Fee: $50

5346 Nurse-Midwifery IV: High Risk Family
Pre-requisite(s): NUR 5345.

This course focuses on application of the Nurse-Midwifery process to the care of mothers and newborns with complications. The goal of this course is to further develop the roles and responsibilities of the health care provider in caring for women and families who have high-risk situations or conditions. Fee: $50

5349 Global Healthcare and Missions

This course prepares students to evaluate the health needs for culturally, ethnically, geographically, and economically diverse populations; develop solutions; and evaluate outcomes from a Christian perspective. The course focuses on cultural analysis and key global health concepts to enhance the effectiveness of the Advanced Practice Registered Nurse working in global and/or cross-cultural health care settings. Fee: $50

5351 Advanced Pharmacology

Use of advanced pharmacotherapeutics, herbals and dietary supplements for primary health care across the life span. Drugs used to treat and manage common illnesses and conditions are the focus of the course. Content includes indication, selection, adverse effects, and client education related to use of prescribed medication. Clinical decision-making and review of laws governing prescriptive authority are also emphasized. Fee: $50

5356 Family Health Care Management II
Co-requisite(s): NUR 5359.
Pre-requisite(s): NUR 5153 and 5355.

Prepares the Family Nurse Practitioner to assume continued responsibility for evaluation and management of acute common and increasingly complex problems in primary care. A systematic approach to current evidence-based assessment, diagnostic testing, diagnosis, and management options is taught from a primary care perspective. Indications for collaboration, consultation, and/or referral to other health care providers are emphasized as an integral part of the nurse practitioner's role. Fee: $50

5357 Family Health Care Management III
Pre-requisite(s): NUR 5356 and 5359.

Prepares the family nurse practitioner student to continue to assume responsibility for evaluation and management of patients in primary care. A focus of the course is to prepare the student to assess and manage selected complex health problems. Indications for collaboration, consultation, and/or referral to other health care providers are emphasized as an integral part of the nurse practitioner's role.

5359 Advanced Family Practice II
Co-requisite(s): NUR 5356 or consent of faculty.
Prerequisites(s): NUR 5153 and 5355.

Continuing evaluation and management of common acute and chronic illnesses seen by the family nurse practitioner. A systematic approach to the treatment options across the lifespan is studied for all body systems. Students are given the opportunity to progress toward increasing independence in clinical practice. Fee: $50

5360 Embryology and Developmental Physiology

This course is designed to provide the student with a greater depth of understanding of developmental physiology of the fetus and neonate. Principles of growth and development, physiologic maturation of organ systems, birth physiology, and transition to extrauterine life through early infancy will be covered. Adaptation of physiologic stress and alterations from normal will also be addressed. Fee: $50

5361 Advanced Newborn/Infant Pharmacotherapeutics

This course provides the student with an in-depth understanding of pharmacotherapeutics for newborns and infants. Content focuses on the alterations seen in the principles of pharmacokinetics and pharmacodynamics when applied to newborn/infant physiology, special considerations of drug therapy in the newborn/infant, and advanced nursing management of selected newborn/infant therapeutics. Issues associated with drug therapy in the neonatal intensive care unit and evaluation of experimental therapies are included. The course also provides essential information needed to obtain prescriptive authority for advanced practice neonatal nurses. Fee: $50

5363 Advanced Neonatal Nursing Practicum II
Pre-requisite(s): NUR 5266.

This practicum focuses on developing increasing clinical competency in the advanced practice role and in the pathophysiology, stabilization, management, and evaluation of the stable and acute high-risk newborn/infant. By using the processes of expert practice, consultation, collaboration, administration, and research utilization, the student will provide advanced nursing management to an increasing caseload of hospitalized newborn/infants and their families. Students are given the opportunity to progress toward increasing independence in clinical practice. Fee: $130

5364 Pathophysiology of the Newborn/Infant

Theoretical and practical knowledge of pathophysiology as it applies to the advanced nursing care of newborns/infants with acute and/or chronic illness or at risk for health problems from a high-risk pregnancy. Consequences of the intensive care environment and abnormal physiology for the normal development of the fetus, newborn and infant will also be addressed. Fee: $50

5365 Advanced Neonatal Nursing Management I: High-Risk & Critically Ill Newborns/ Infants

Pre-requisite(s): NUR 5163 and NUR 5262.

Theoretical and practical knowledge needed for advanced practice neonatal nurses (APNN) to manage the health care needs of culturally diverse newborns/infants in neonatal intensive care units (NICU). Content focuses on stabilization, management and evaluation of high-risk and critically ill newborns/infants and their families. Responsibilities of the APNN in perinatal-neonatal health care policy and delivery systems management are also emphasized. Fee: $50

5367 Advanced Neonatal Nursing Management II: Acute & Chronic Problems of Newborns/ Infants

Pre-requisite(s): NUR 5365.

Theoretical and practical knowledge needed for advanced practice neonatal nurse (APNN) to manage the health care needs of culturally diverse newborns/infants in neonatal intensive care units (NICU) and post-discharge NICU graduates through the first two (2) years of life. Content focuses on stabilization, management, and evaluation of acute and chronic illness during infancy. Responsibilities of APNN in perinatal-neonatal health care policy and delivery systems management are also emphasized. Fee: $50

5369 Advanced Neonatal Nursing Practicum III Residency

Pre-requisite(s): NUR 5363.

This practicum focuses on continuing to develop increased clinical competency, delivery room management, and team management in the advanced practice role and in the pathophysiology, stabilization, management, and evaluation of high-risk infants with increasing acuity. By using the processes of expert practice, consultation, collaboration, administration, and research utilization, the student provides advanced nursing management to a caseload of hospitalized infants and their families with complex health needs. Students are given the opportunity to progress toward increasing independence in clinical practice.

5370 Practice Residency for Midwifery

Pre-requisite(s): Completion of all specialty clinical practicum courses.

Students will have the opportunity to practice in the full scope of the nurse-midwifery role. Student experiences will lead to increasing expertise in providing safe, effective, efficient and ethical care. Fee: $50

5381 Visionary Leadership in Complex Organizational Systems

This course provides a comprehensive overview of leadership in complex healthcare organizations. Influential leadership behaviors such as the use of imagination, risk-taking, and transformative thinking to create evolutionary change in complex organizations are examined. Effective communication, negotiation, conflict resolution, delegation, and coordination skills, from an interpersonal and organizational perspective, are explored.

5382 Health Policy and Advocacy for the Nursing Leader

This course explores health and public policy development in the United States. The processes and tools used for policy implementation and evaluation are discussed. The impact of economic, legal, and political factors on efficacy and efficiency of organizations and care delivery is explored. The advocacy role of the nurse leader to defend or maintain a cause on behalf of patients, staff, and the nursing profession is presented.

5384 Evidence Based Practice for Nurse Leaders

This course focuses on the ethical translation of current evidence to improve healthcare delivery systems and patient care. The role of the nurse leader in critically appraising the evidence and integrating it into practice, decision-making, or change is examined.

5385 Legal and Regulatory Requirements and Compliance

This course examines the application and impact of legal and regulatory requirements for nurse leaders. More specifically, federal and state laws, wage and hour laws, equal employment laws,

and occupational health and safety practices, as well as legal issues such as fraud, whistle-blowing, malpractice/negligence, electronic security, and harassment in healthcare organizations are analyzed. Implications of the nurse practice act(s) for effective management of safe patient-centered care are evaluated.

5386 Innovation for Clinical Prevention and Population Health

This course uses principles of epidemiology to evaluate disease prevention and health promotion data to design innovative healthcare programs for individuals and communities. Community assessment skills, healthcare disparities, and the development of culturally appropriate health outcome measures are explored. Elements of planning and responding to internal and external disasters are investigated.

5388 Interprofessional Collaboration and Partnerships

This course prepares the student for deliberate interprofessional collaborative practice with the goal of building a safer and better patient-centered and community/population-oriented healthcare system. The role of the nurse leader in developing, demonstrating, and maintaining interprofessional collaborative practice is explored. Strategies for communication, conflict, negotiation, delegation, and supervision of groups and teams are discussed.

5389 Financial Acumen for Nursing Leadership

This course examines business principles and practices such as cost benefit analysis, budgeting, and marketing used in leadership and management of successful healthcare organizations. Budget development and control in selected nursing settings will be examined.

5391 Quality Management and Safety in Nursing Practice

This course provides an overview of a variety of models used for healthcare improvement. Creative and innovative strategies that drive leadership activities to improve care delivery and population outcomes are examined. Common performance measurements and components of evidenced-based healthcare safety programs are explored.

5450 Family Nurse Practitioner Residency

Pre-requisite(s): NUR 5356 and 5359.

A residency requiring independent clinical management of acute and chronic illnesses across the life span. Synthesis of practice management skills pertaining to economics, reimbursement for services, and time management will be emphasized as well as implementation of transcultural nursing concepts. Concepts of research will be applied in the clinical setting. Fee: $60

5452 Advanced Health Assessment/Promotion/Disease Prevention

Pre-requisite(s): NUR 5232 and 5233 or concurrent enrollment.

Expansion of prerequisite knowledge of health and physical assessment. Comprehensive physical, psychosocial, spiritual, and cultural assessments across the life span are studied. Health promotion and disease prevention during life transitions are incorporated into the assessment process. Advanced health assessment and disease prevention concepts and techniques are practiced. Beginning technical skills used in clinical diagnostic procedures are included. Fee: $50

5V03 Teaching/Learning Practicum 1 to 3 sem. hrs.

Pre-requisite(s): NUR 5302.

Practical experiences to apply teaching/learning principles and theories and evaluation methods in classroom and clinical settings. The practicum is supervised by faculty and precepted by an accomplished teacher. Seminar discussions will focus on solutions to contemporary problems in nursing education. Fee: $50

5V08 Special Topics in Advanced Nursing 1 to 3 sem. hrs.

Pre-requisite(s): Graduate standing.

The special topics, variable credit course provides opportunity for advanced study in areas not covered by formal nursing courses. Fee: $50

5V43 Nurse-Midwifery II: Women's Health Practicum **1 to 3 sem. hrs.**
Pre-requisite(s): NUR 5V42 or concurrent enrollment.

This course provides students with clinical experiences to demonstrate synthesis, integration, and translation of the knowledge and skills necessary to promote health, maintain wellness, and manage pregnancy, contraception, and common gynecologic problems. Use of information technology in the clinical practice setting is expected. The nurse-practitioner and nurse-midwifery management models of care are used in the provision of assessment, diagnosis, intervention, and evaluation for clients. Fee: $50

5V50 Complementary Therapies and Traditional Chinese Medicine
Pre-requisite(s): NUR 5V49 or consent of course instructor.

The purpose of this course is to provide an opportunity for health professions students to experience a study abroad program with a focus on complementary and alternative therapies. Students and faculty will explore health and Traditional Chinese Medicine (TCM) practices within the context of the Chinese culture and health care delivery settings. Students will also examine the Chinese system of health professions education and dialogue with students enrolled in selected programs in China. Fee: $50

5V92 Residency for the Nurse Leader **1 to 6 sem. hrs.**
Pre-requisite(s): NUR 5280, NUR 5381, NUR 5382, NUR 5283, NUR 5384, NUR 5385, NUR 5386, NUR 5287, NUR 5388, NUR 5289, NUR 5390, and NUR 5391.

This course provides the opportunity for the student to practice with a nurse leader as mentor. A final capstone project will be developed, implemented, and evaluated with the assistance of the mentor during the practicum. The student will meet the AONE competencies within the course.

5V97 Independent Study **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of instructor.

An opportunity for the student to supplement knowledge gained in previous graduate nursing courses. Maximum of three semester hours credit. Fee: $50

61C1 DNP Project I
Pre-requisite(s): NUR 6375.

This Seminar, the first of 4 DNP Project courses, provides the student the opportunity to develop a plan of study for the project and form a DNP project committee. DNP I involves framework analysis, CITI training, and site/location analysis, and begins to explore data management. Fee: $50

6272 Applied Ethics for Advanced Practice Nursing

Students explore the development and philosophical foundation of nursing ethics. Ethical dilemmas encountered by advanced practice nurses in a variety of settings are identified and systematically analyzed. Fee: $50

62C2 DNP Project II
Pre-requisite(s): NUR 61C1.

For the overall DNP project, each student develops her or his own set of objectives as the project dictates. The project objectives should be drawn from the American Association of Colleges of Nursing DNP Essentials articulated in the DNP Handbook. The specific objective for DNP Project II is to complete a project proposal that has been approved by the DNP Project Advisor and project team member(s). Fee: $50

62C3 DNP Project III
Pre-requisite(s): NUR 62C2.

This Seminar, the third of four Capstone courses, involves the implementation of the Capstone project. In Capstone 3 the student is expected to be actively engaged in project implementation. IRB submission (if required) must be accomplished in Capstone 3 if it has not been accomplished in Capstone 2. Fee: $50

62C4 DNP Project IV
Pre-requisite(s): NUR 62C3.

This seminar, the fourth course in the capstone series, finalizes the Capstone project. In Capstone IV, the student is expected to complete project implementation, analyze data, evaluate outcomes, and disseminate findings of the completed project. The student will formally defend the capstone project prior to graduation. Fee: $50

6300 The NICU Graduate

This course provides an overview of the care of the NICU graduate: the infant after NICU discharge through two years of life. The course focuses on parent and family transitions, the care of infants post-discharge, growth and development, immunizations, wellness visits, acute care visits, special considerations for those with long-term complications, and consulting services.

6301 Developing Executive Nursing Presence, Authority, and Influence

This course assists nurse leaders in embracing the factors, attributes, and processes that can strategically influence their constituents' goals and perceptions. The course focuses on nurse executives' applying knowledge-based competencies and using communication traits that reflect the appropriate authority and status required to successfully influence decisions locally, nationally, and globally.

6302 Resource Attainment and Allocation

Advanced business principles and skills are critical to strategically attaining and allocating financial and human resources. The course focuses on knowledge and skills that are essential to operationalize fiscal and human resources for current and future care delivery models. The content includes advanced financial business skills, alternative funding options, staffing models, and human resource and workforce development.

6303 Influential Communication & Relationship Building

This course examines specific knowledge and traits that impact the executive's proficiency in interacting and purposefully creating influential macro and micro relationships and actualizing desired outcomes. The focus is on identification of key constituents' perspectives and determining the most effective communication methods and timing to influence relationships, gain credibility, and actualize goals.

6305 Business Intelligence and Advanced Decision-Making in Complex Healthcare Organizations

This course focuses on the use of business and healthcare technology data to improve and predict performance, influence and optimize decisions in health care, and promote effective strategy development to improve operational and clinical outcomes. The course provides an opportunity to collaborate with healthcare leaders to apply knowledge in a selected setting.

6306 Creating Excellence in Professional Practice Environments

This course addresses visioning, strategic planning, and designing structures and processes that will advance excellence in professional nursing practice. The emphasis is on developing skills and knowledge that will support developing and sustaining a practice environment that promotes optimal outcomes for patients, nursing, and organizations and elevates the perception of nursing practice.

6307 Strategic Economic and Financial Concepts

The course examines current trends in healthcare economics and the current and potential impact on organizational financial practices. The emphasis is on developing specific skills and knowledge a nurse executive can use to effectively respond to changing economic and financial expectations and improve stakeholder perception of nursing's value to the organization.

6308 Transforming Systems and Care Delivery Models for Diverse Populations and Emerging Needs

This course examines different models of care delivery, outcomes, and emerging trends in the United States and globally. The emphasis is on gaining a theoretical, evidenced-based, and global

perspective to be able to effectively influence transformation of systems and care delivery models in response to the emerging needs of diverse populations.

6316 Transforming Health Care Organizations and Changing Outcomes

This course examines key factors used to assess complex health care organizations, including identification, development, implementation, and evaluation of change strategies that ensure optimal patient care quality and safety outcomes. Fee: $50.

6369 Clinical Genetics in Practice

Pre-requisite(s): NUR 5232 and 5233.

This course explores the identification, evaluation, and implementation of evidence-based genomics practices that can be used to prevent and control leading chronic, infectious, environmental, and occupational diseases. The familial, social, economic, and psychological implications of genetic testing are analyzed. Fee: $50

6371 Nursing Informatics

This course focuses on the current role of information technology in nursing practice. Emerging trends and informatics are explored. Students will become familiar with application of information science and computer technologies in health care, biomedical research, and education of health professionals. Fee: $50

6373 Clinical Epidemiology

Pre-requisite(s): NUR 5314.

An integration of basics of epidemiology (e.g. incidence, distribution and determinants of disease) and public health in order to promote knowledge and skills in care for vulnerable populations as individuals and aggregate. Basics of study of populations, biostatistics and environmental data will be included. This course builds upon NUR 5314 Scientific Inquiry. Fee: $50

6375 Translational Science

Pre-requisite(s): NUR 5314 or a passing grade in a masters-degree level research methods course.

This course builds upon knowledge gained in Scientific Inquiry (NUR 5314) or a masters-level research course. Students in Translational Science gain advanced skills in appraising the results of scientific and other evidence, learn strategies to translate evidence into practice, and evaluate outcomes relevant to advanced practice nursing. Fee: $50

6377 Policy and Implications for Health

This course provides the student with information to facilitate the identification and analysis of emerging priority areas for health from state, national, and international nursing perspectives. The role of advocate for population groups from a position of leadership is emphasized. Fee: $50

6V76 Advanced Practice Nursing Residency **1 to 6 sem. hrs.**

Pre-requisite(s): Completion of all specialty clinical courses.

This course provides the student with in-depth clinical opportunities by focusing on personally designed experiences that lead to increasing expertise in providing safe, effective, and efficient care in a focused population. Fee: $50

NUTRITION SCIENCES (NUTR)

4351 Life Cycle Nutrition

Pre-requisite(s): A minimum grade of C in NUTR 2351 or consent of instructor.

Nutritional needs of individuals as they progress through the life cycle from birth through aging, with considerations of concomitant problems. (3-0)

4386 Nutrition for Sport and Fitness

Pre-requisite(s): NUTR 2351 or consent of instructor.

Nutritional concepts for individuals and team sport participants across the life cycle with

a particular focus on selection of optimal dietary approaches as related to performance needs, maximizing performance, body comparison, energy balance, and unique nutrient needs for specific sport participants. Food and nutrition quackery in sports will also be addressed.

4387 Advance Nutrition
Pre-requisite(s): Nutrition Sciences majors must have a grade of C or higher in NUTR 2351, BIO 1305, CHE 1301, 1341, and 3341.
Nutrients and their roles in human health. Emphasis on trends in nutritional research. (3-0)

5351 Nutrition and Aging (Cross-listed as GRT 5351)
Pre-requisite(s): NUTR 2351 or consent of instructor.
Nutritional needs of individuals as they age. Disease prevention, nutrition assessment, and the central role of nutrition in maintaining health and well-being.

5352 Pediatric Nutrition
Pre-requisite(s): Graduate standing.
An in-depth investigation of all aspects of pediatric nutrition. The course will cover nutrition concerns from conception through adolescence.

5354 Nutrition in Public Health
Pre-requisite(s): 12 hours undergraduate in nutrition and related subjects, or consent of instructor.
A comprehensive study of Public Health and the role Nutrition plays in maintaining the health and well-being of communities.

5355 Macronutrients and Metabolism
Pre-requisite(s): Graduate standing.
An in-depth investigation of all the macronutrients (fats, carbohydrates, and protein) and their metabolic activity.

5356 Micronutrients and Phytochemicals
Pre-requisite(s): Graduate standing.
An in-depth investigation of micronutrients and their metabolism with the focus on the action, interaction and sources of vitamins and minerals.

5357 Global Aspects of Food and Nutrition
Pre-requisite(s): Graduate standing.
Nutritional issues in developing countries, including an analysis of factors contributing to food supply, nutritional status including malnutrition, effect of under-nutrition, and methods of assessing nutritional status and interventions.

5358 Emerging Issues in Food and Nutrition
Pre-requisite(s): Graduate standing.
Readings, discussion, and analysis of one or more emerging trends and developments in nutrition and food sciences.

5359 Advanced Medical Nutrition Therapy
Pre-requisite(s): Graduate standing.
Nutrition in disease, including the biochemistry and pathophysiology of nutrition care, effects of disease, metabolism, advanced medical nutrition therapy, assessment, and therapeutic intervention.

5360 Resource Management in Nutrition and Food Systems
Pre-requisite(s): Graduate standing and successful completion of NUTR 3435 or equivalent.
Principles of management applied to foodservice systems including institutions and restaurants and nutritional care delivery.

5370 Research Methods in Nutrition Sciences
Pre-requisite(s): Graduate standing.
An in-depth investigation of research procedures in Nutrition Sciences.

5380 Clinical Sports Nutrition
Pre-requisite(s): NUTR 2351 or 4386, or consent of instructor.
In-depth study of clinical sports nutrition.

5650 Dietetic Internship
Pre-requisite(s): Departmental approval required.
Supervised off-campus experiences in medical nutrition therapy, food systems management, and public health nutrition settings.

5V93 Special Topics in Nutrition and Food Sciences 1 to 6 sem. hrs.
Pre-requisite(s): Graduate standing and consent of instructor.
Special topics in Nutrition and Food Sciences. May be repeated with different topics for up to six hours.

OCCUPATIONAL THERAPY DOCTORATE (OTD)

6101 Capstone Seminar I
Individual and small-group work with faculty collaboration and mentorship to develop Capstone Project Proposal including need for the project and project plan.

6102 Capstone Seminar II
Pre-requisite(s): OTD 6101.
Follows work completed in Capstone Seminar I. Development of research knowledge and skills to assess existing research evidence in Occupational Therapy. Individual and small-group work with faculty collaboration and mentorship to develop the literature review.

6103 Capstone Seminar III
Pre-requisite(s): OTD 6102.
Follows work completed in Capstone Seminar II. Development of methods and procedures for Capstone Project; presentation of the final proposal to the faculty and peer cohort; preparation of abstract for publication.

6104 Capstone Seminar IV
Pre-requisite(s): OTD 6103.
Implementation of capstone project including data collection and data analysis, or program evaluation with conclusions. Preparation of abstract for publication.

6105 Capstone Seminar V: Doctoral Capstone Project
Pre-requisite(s): OTD 6104.
Dissemination of the results of an applied and innovative project in response to an identified need in the profession.

6210 Evidence-Based Practice
Exploration of the knowledge and tools critical to locating, selecting, analyzing, and applying scholarly literature to support evidence-based OT clinical decisions. The course serves as a first step in the identification of a Capstone Project focus area.

6220 Professional Development and Leadership
In-depth analysis of criteria for professional excellence, advanced credentialing, and leadership in occupational therapy; development of a professional portfolio emphasizing competency in an evidence-based practice specialty or for preparation for teaching in an OT or OTA program. Exploration of leadership and power.

6230 Teaching and Educational Theory in Occupational Therapy
An overview of current research and theory related to the education of occupational therapy practitioners, including academic and clinical education experiences. Emphasizes major concepts of

adult learning with a focus on active learning and cooperative learning principles.

6240 Program Evaluation & Development

Concepts and strategies for assessment of practice outcomes and program evaluation including grant-writing. Students access and analyze data to examine the needs of a community that warrants occupational therapy interventions. Topics include the development of outcome tools, basis of outcomes research, selection and availability of outcome tools, and challenges for implementation.

6251 Therapeutic Neuroscience Education

Evolution of therapeutic pain neuroscience education, including why pain neuroscience education is essential to patient care. This course emphasizes current best evidence for the clinical application and implementation of therapeutic pain neuroscience education for patients with acute, sub-acute, and chronic pain. General concepts related to chronic pain, fear avoidance models, and central sensitization are included.

6252 Essentials of Hybrid Learning

Provides clinical and academic healthcare professionals with the foundational knowledge essential for successful delivery of meaningful distance learning education in a technology-dependent instructional environment. Explores the history of distance education, various delivery models, and current and evolving best practice strategies.

6253 Grant Writing and Resource Development

Overview of effective grant writing skills, mechanics of proposal writing, and political and social aspects of grantsmanship. Skills are developed for identifying sources of grant funding and tailoring a proposal to the interests of specific audiences.

6254 Qualitative Research Methods

An examination of the major approaches used in conducting qualitative research and the application of these methods to occupational therapy. Exploration and application of topics including interviewing techniques and reporting of qualitative research. Includes valuation and critique of research studies using qualitative methods.

6310 Advances in Occupational Therapy Practice

Critical analysis of the American Occupational Therapy Association (AOTA) Occupational Therapy Practice Framework and other professional documents that serve as resources for addressing contemporary OT practice issues. Focus is directed on analyzing current professional trends including those representing advances in global, national, state, and local organizations. Requires completion of a Professional Development Plan.

6320 Occupational Therapy Conceptual Foundations

Study of the complexity of human occupation, occupational science, and the impact of historical and contemporary advances in occupational therapy theory. The validity and reliability of occupation-based assessment instruments and the efficacy of evidence-based treatment interventions are studied particularly as they relate to meeting the occupational needs of society.

6330 Clinical Reasoning: Forms of Inquiry in Advanced Practice

Advanced topics in clinical reasoning with an emphasis on narrative inquiry and occupational science. Exploration of biomedical and phenomenological approaches to examining individual and personal meanings of illness and health.

6655 Management of Musculoskeletal Conditions

Provides an evidence-based integration of OT intervention techniques for the management of individuals with upper quarter disorders. Clinical examination, evaluation, diagnosis, and therapeutic interventions of the upper extremity. Classification systems and outcomes assessment tools, within the framework of evidence-based practice, are included. An intensive laboratory session is mandatory for completion.

PHILOSOPHY (PHI)

4310 Philosophy of Science

An analysis of philosophical problems about science. Such central concepts as law, causation, induction, hypothesis, theory, verification, and models are studied. Presuppositions and methodologies of different sciences may be examined. The relation of scientific views to moral, social, and metaphysical problems is considered.

4311 Epistemology

A critical examination of classical and current problems in theories of knowledge. Attention is given to such problems as meaning, truth, the knowing situation, universals, knowledge of the external world and of other minds, and validation of knowledge claims. The contributions of recent movements such as logical empiricism, linguistic analysis, phenomenology may be studied.

4314 History of Philosophy: Patristic and Medieval

The history and development of philosophy from 250 to 1400 A.D. Some of the major philosophers studied include Augustine, Boethius, John Scotus Erigena, Anselm, Abelard, Avicenna, Averroes, Maimonides, Bonaventure, Thomas Aquinas, John Duns Scotus, and William of Ockham. Special emphasis will be placed on the significance of pre-Enlightenment thinkers to the development of the Enlightenment and Modernity.

4318 Philosophy of Law

A critical study of historical and contemporary approaches to primary issues in jurisprudence and the philosophy of law, including tort law, criminal law, and Constitutional law.

4320 The Philosophy of Religion

A philosophical inquiry into such topics as the existence and nature of God, religious experience, immortality, the problem of evil, the relationship between reason and faith, the meaning of religious language and symbols, and the validity of religious knowledge claims. Methods of contemporary philosophical analysis are used in clarifying religious concepts.

4321 Metaphysics

Pre-requisite(s): Two philosophy courses (or the equivalent in philosophical content from courses from Great Texts, BIC, or other departments, as approved by the instructor).

A critical analysis of classical and contemporary metaphysical systems and problems. These include the world views found in the philosophies of naturalism, idealism, personalism, positivism, pragmatism, organicism, and existentialism. Problem areas considered are mind-body relations, cosmology, ontology, philosophical anthropology, universals, determinism, and freedom. Basic categories such substance, cause, time, space, matter, and form are critically examined. Attention also is focused upon methods and criteria employed in metaphysical study.

4324 Philosophy in Literature

A critical study of philosophical material in literature, that is, a study of the philosophy to be found in essays, novels, poems, and plays. Among the authors usually studied are Plato, Aristotle, Theophrastus, Lucretius, Voltaire, Goethe, Ibsen, Nietzsche, Kafka, Camus, Sartre, Malraux, Hesse and selected contemporary novelists.

4331 Latin American Philosophy

Pre-requisite(s): Upper-level standing.

Philosophical and intellectual movements in Latin America from the colonial times to the present. These movements include scholasticism, eclecticism, utilitarianism, romanticism, positivism, vitalism, phenomenology, and existentialism and philosophies of liberation. Works of major representatives of these movements (including such men as Bello, Mora, Sierra, Varona, Deustua, Caso, Korn, Vasconcelos, Farias Brito, Vaz Ferreira, and Romero) are studied.

4340 East Asian Philosophy (Cross-listed as AST 4340)

An historical and critical survey of the major movements in Chinese, Indian, or Japanese philosophy. Course may be repeated once with different area of concentration.

4341 Contemporary Continental Philosophy

A critical study of philosophical movements in Europe during the past one hundred and fifty years. Some of the major philosophers studied include Nietzsche, Husserl, Adorno, Heidegger, Merleau-Ponty, Sartre, de Beauvoir, Wittgenstein, Russell, Carnap, Gadamer, Habermas, Lyotard, Foucault, and Derrida. Movements studied include phenomenology, positivism, naturalism, critical theory, existentialism, structuralism, deconstructionism, and post modernism. Course may be repeated once with a different area of concentration.

4342 Contemporary American Philosophy

A critical study of philosophical movements in the United States during the past one hundred years. Some of the philosophers whose works are studied include Pierce, James, Royce, Dewey, Mead, Lewis, Santayana, Whitehead, and Quine. Recent movements such as critical realism, naturalism, humanism, personalism, logical positivism, and linguistic analysis are also studied.

4345 Intermediate Logic

Pre-requisite(s): Upper-level standing.

The language of first-order logic as a formal deductive system.

4353 Philosophy of Language

Pre-requisite(s): Upper-level standing.

Critical examination of the basic problems in general semantics and philosophy of language, giving special attention to the major authors in these fields.

4360 Contemporary Ethical Theory

Pre-requisite(s): Two philosophy courses (or the equivalent in philosophical content from courses from Great Texts, BIC, or other departments, as approved by the instructor).

Major issues in contemporary ethical writings. Course may be repeated once for credit if topic varies.

4361 Social Philosophy (Cross-listed as PSC 4353)

A critical survey of the fundamental concepts and theories used in justifying social institutions. Problems such as authority, law, freedom, rights, equality, responsibility, power, justice, the state, and justification of open societies are considered.

4365 Jewish Philosophy

Pre-requisite(s): Upper-level standing or consent of instructor.

Jewish philosophy in the twentieth century, with emphasis on the relation between mortality and morality, justice and totalitarianism, faith after the Holocaust, and individualism and revolution.

4379 Islam and Democracy

Pre-requisite(s): Upper-level standing.

Examines the evolution of political philosophy and institutions in Muslim culture.

4V99 Special Topics in Philosophy **1 to 3 sem. hrs.**

Pre-requisite(s): Senior or graduate standing and consent of instructor.

Faculty-directed individual, group, or class research project. Course may be taken up to three times with a different topic for a maximum of 9 credit hours.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5301 Readings from Plato

Topics include Plato's philosophical contributions in metaphysics, epistemology, ethics, social and political philosophy, and aesthetics. Additional topics may include the philosophical uses of literary form, and the role of psychology and the emotions in an adequate philosophical understanding of human nature and the common good. Students learn a variety of interpretive approaches to Plato and also become familiar with the secondary literature on Plato.The course may be taken up to three times with different topics for a total of nine hours course credit.

5302 Readings from Aristotle

We read from Aristotle's writings around a theme, e.g., metaphysics, epistemology, logic, ethics, politics, aesthetics, or psychology. Students become conversant with Aristotle's writings and important secondary literature. Course may be taken up to three times with different topics for a total of nine hours course credit.

5306 Readings from Kierkegaard

An intensive reading of selected philosophical works of Soren Kierkegaard, drawn from his pseudonymous and non-pseudonymous authorship. Focuses on significant philosophical issues discussed in Kierkegaard's works, putting him in conversation with important philosophers both from the past and from the contemporary world. Course may be taken up to two times with different topics for a total of 6 hours course credit.

5310 Value Theory

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A seminar on the major interpretations of the nature and meaning of value, with particular attention to the relation between value theory and ethics. Course may be repeated once with a different topic of study.

5311 Readings from the Philosophers (Cross-listed as PSC 5311)

Pre-requisite(s): For Political Science or Philosophy graduate students only; or consent of instructor.

An intensive, critical reading of selected works of major philosophers such as Plato, Aristotle, Augustine, Aquinas, Descartes, Locke, Hume, Kant, Hegel, Nietzsche, Heidegger, Russell, and Rawls. Other philosophers may be added to this list. May be taken a maximum of six times if different topic, not to exceed eighteen semester hours.

5312 Topics in Classical Philosophy

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical study of philosophers from the classical world; may include figures from the pre-Socratic origins of philosophy to the times of epicurean and stoic philosophers, including especially Plato and Aristotle. Course may be taken up to three times with different topics for a total of nine hours course credit.

5313 Topics in Action Theory

An in-depth study of relevant recent and/or more classical philosophical literature on one or more selected topics such as free will, responsibility, practical rationality, decision theory, and intention. Course may be taken up to three times with different topics for a total of nine hours course credit.

5314 Topics in Modern Philosophy

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical study of philosophers from the Modern Period, including thinkers from the sixteenth to the nineteenth centuries. Course may be taken up to three times if topic is different for a total of nine hours credit.

5315 Topics in Philosophy of Mind

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A philosophical examination of the nature of the human mind and its relation to the body as well as theories that account for the nature of consciousness, intentionality, and other features of

mentality. Course may be taken up to three times when topic is different for a total of nine credit hours for the course.

5316 Contemporary Philosophical Problems
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

Examination of historical, normative, and analytical problems which have arisen in the history of philosophy and an examination of the systems of philosophy which have emerged from the consideration of these problems. May be taken six times if different topic, not to exceed eighteen semester hours.

5318 Logic for Philosophers
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

In this course the student should gain formal tools that are useful in a wide-range of areas of philosophy, including: propositional logic, quantificational logic, basic set theory, basic probability theory, and basic modal logic.

5319 Philosophical Writing
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

This course contains a significant amount of epistemology, metaphysics, and ethics. This course has as its goal mastering the art of writing a critical essay in philosophy, an essential skill for success in graduate school in philosophy and for publication success after securing a faculty position in philosophy.

5320 Special Topics in Philosophy
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

Special research topics to be undertaken by students under direct supervision of the professor. Course may be taken a maximum of four times if different topic, not to exceed twelve hours.

5321 Topics in Epistemology
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

Covers a broad array of issues concerning the nature of successful cognition of the sort sought after in purely theoretical activities. May focus on issues such as the nature and possibility of knowledge, the threat of skepticism, and the nature of rationality and justification, as well as on current controversies in the literature, including controversies with the value of knowledge, debates between foundationalists and coherentists, the Gettier problem, and many others. Course may be taken up to three times when the topic is different for a total of nine credit hours for the course.

5322 Topics in Metaphysics
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

Covers a broad array of issues concerning the nature of being and reality, involving topics concerning God, the world, and the self. May focus on related topics such as ontology, category theory, substances and attributes, space and time, causation, and possible worlds. Course may be taken up to three times when topic is different for a total of nine credit hours for the course.

5330 Readings in Ancient and Medieval Philosophy
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical readings course on primary sources and ancient and medieval philosophy. The course concludes with a comprehensive written examination over the sources.

5331 Readings in Modern and Contemporary Philosophy
Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical readings course on primary sources in modern and contemporary philosophy. The course concludes with a comprehensive written examination over the sources.

5333 Seminar in Political Philosophy (Cross-listed as PSC 5333)

See PSC 5333 for course information.

5342 Seminar on Religion, Law, and Politics (Cross-listed as PSC 5342 and REL 5340)

An examination of the liberal and republican traditions of government and their relationship to church-state relations, with particular emphasis on how philosophers, legal theorists, and/or theologians assess the influence of both traditions on the American constitutional system. Among the topics that may be discussed are the debates about liberalism, religious liberty, religious establishment, the employment of religious reasons in a liberal regime, and the nature of public reason.

5343 Classical Political Thought (Cross-listed as PSC 5343)

See PSC 5343 for course information.

5350 Workshop in Teaching Philosophy

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

This course will address a broad range of pedagogical issues involved in becoming a successful philosophy teacher. Topics include: educational theory, organizational strategies, practical techniques for effective lecturing, practical techniques for stimulating discussion, the logistics of evaluation, the scholarship of teaching and the importance of ongoing self-assessment of classroom performance.

5353 Medieval Political Thought (Cross-listed as PSC 5353)

See PSC 5353 for course information.

5360 Contemporary Ethical Theory

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical study of issues in contemporary ethical theory; may be taken up to three times with different topics of study, not to exceed nine semester hours.

5361 Topics in Contemporary Philosophy of Religion

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

This course investigates issues in contemporary philosophy of religion. Course may be taken up to three times with different topics, not to exceed a total of nine hours of course credit.

5362 Issues in Contemporary Philosophy of Science

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical study of issues in contemporary philosophy of sciences; may be taken up to three times with different topics of study, not to exceed nine hours of course credit.

5363 Modern Political Thought (Cross-listed as PSC 5363)

See PSC 5363 for course information.

5365 Topics in Philosophy of Language

Pre-requisite(s): For philosophy graduate students only or by departmental approval.

A critical study of issues in philosophy of language. Meaning, reference, intentionality and extensionality are among possible topics to be considered using primary sources in contemporary philosophy. May be taken up to three times with different topics not to exceed nine total credit hours.

5393 Advanced Seminar in Political Philosophy (Cross-listed as PSC 5393)

See PSC 5393 for course information.

5V99 Thesis **1 to 6 sem. hrs.**

Research, writing, and oral defense of an approved master's thesis. A minimum of six semester credit hours of PHI 5V99 is required.

6V10 Prospectus Research **1 to 6 sem. hrs.**

Pre-requisite(s): PHI 5330 and 5331; and completion of regular course work.

Supervised research for developing and writing a Dissertation Prospectus Proposal that will be the subject of a preliminary exam that will admit students to candidacy. A student may repeat this course for credit, with a maximum of eighteen total hours.

6V99 Dissertation **1 to 12 sem. hrs.**

Supervised research for the doctoral dissertation.

PHYSICS (PHY)

4322 Advanced Topics in Classical Physics

Pre-requisite(s): PHY 3320, 3330, and MTH 3326.

Continuation of PHY 3320 and 3330. Topics normally include: dynamics of systems of particles: rigid-body motion; coupled oscillations; the wave equation in one dimension; gauge transformations; electromagnetic waves in conductors and nonconductors; dispersion; multiple radiation; Linard-Wiechert potentials; relativistic electrodynamics.

4340 Statistical and Thermal Physics

Pre-requisite(s): PHY 3372 and MTH 3326.

Topics normally include: basic probability concepts; macroscopic thermodynamics; statistical thermodynamics; kinetic theory; quantum statistics.

4350 Introduction to Stellar Structure and Evolution

Pre-requisite(s): PHY 2455; and MTH 3326 or concurrent enrollment.

A quantitative study of the physics of stars and stellar systems. Topics include observed properties of stars and the physics underlying those properties, radiation and stellar spectra, the interior structure of stars, the life cycles of stars, white dwarfs, neutron stars, and black holes.

4351 Introduction to Modern Cosmology

Pre-requisite(s): PHY 4350 and MTH 3326.

An introduction to modern cosmology, including observational cosmology, Newtonian gravity, relativistic cosmological models, thermal history of the universe, dark matter and dark energy, inflationary models, the origin of the light elements, structures in the universe, and the cosmic microwave background radiation. The principles of Einstein's general theory of relativity and observations in experiments will also be covered.

4360 Computer Models in Physics

Pre-requisite(s): PHY 3320, 3372, and CSI 3324.

Application of contemporary computer methods to the solution of physics and engineering problems. Theory and applications of finite difference equations. Deterministic, discrete, and continuous models. Computer graphics. Waves in classical and quantum physics. Monte Carlo calculations, electric circuits, partial differential equations in physics and engineering.

4372 Introductory Solid-State Physics

Pre-requisite(s): PHY 3373.

Topics normally include: crystal structure; reciprocal space; elastic and thermal properties; electronic structure; the Fermi surface; elementary semiconductor physics; dielectric and magnetic properties of solids.

4373 Introductory Nuclear and Particle Physics

Pre-requisite(s): PHY 3373.

Topics normally include: nuclear structure and models; angular momentum and isospin; conservation laws and discrete symmetries; electromagnetic and weak interactions; quark model; nuclear and particle astrophysics.

4374 Introduction to Relativistic Quantum Mechanics

Pre-requisite(s): PHY 3373.

Dirac's equation, its covariance properties, its solutions; Foldy-Wouthuysen transformation and exact results; propagator theory; applications in various areas of physics.

5155 Advanced In-Situ Instrumentation Techniques (Cross-listed as ENV 5155)
Pre-requisite(s): PHY 4155, 4350, and concurrent enrollment in 4351.

Computer modeling and instrument design and development of detectors for the in-situ measurement of physical and dynamic characteristics of dust in interplanetary space and planetary ring systems. (0-3) Fee: $100

5180 Graduate Physics Colloquium
Pre-requisite(s): Enrollment in graduate program.

Students are required to register for the weekly colloquium and to present papers. No more than three semester hours may be counted on a master's degree and no more than six may be counted on the Ph.D. degree. (1-0)

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5320 Classical Mechanics I
Pre-requisite(s): PHY 4322.

Elementary mechanics, variational principles, Lagrange's equations, two-body central forces, scattering, kinematics, rotations, rigid body motion, and Hamilton's equations of motion; special relativity, including covariant Lagrangian formulation.

5321 Classical Mechanics II
Pre-requisite(s): PHY 5320.

Small oscillations; canonical transformations; Hamilton-Jacobi theory; canonical perturbation theory; Lagrangian and Hamiltonian densities, critical points, Lyapunov exponents, bifurcation, chaos, noise, and other topics in non-linear dynamics.

5330 Electromagnetic Theory I
Pre-requisite(s): PHY 4322 and 5360 (concurrently).

Advanced electrostatics and magnetostatics, boundary-value problems, time-varying fields, conservation laws, plane electromagnetic waves, wave guides and resonant cavities, and simple radiating systems and diffraction. (3-0)

5331 Electromagnetic Theory II
Pre-requisite(s): PHY 5330.

Magnetohydrodynamics and plasma physics, advanced relativistic electrodynamics, collisions of charged particles, scattering, Lienard-Wiechert potentials and radiation by moving charges, Bremsstrahlung, the method of virtual quanta, dynamic multipole fields, radiation damping, self-fields of a particle, and scattering and absorption by a bound system. (3-0)

5340 Statistical Mechanics
Pre-requisite(s): PHY 4340 and credit or concurrent registration in PHY 5360.

Probability, statistical methods, classical and quantum statistical mechanics, postulates, ensembles, ideal systems, real gases, cluster expansions, liquid helium, and phase transitions. (3-0)

5342 Solid State Physics
Pre-requisite(s): PHY 4372 and 5370.

Theory of solids: crystal symmetry, lattice dynamics, band theory, lattice defects, impurity states. Applications to the thermal, magnetic, and electrical properties of solids. (3-0)

5350 Fundamentals of Stellar Structure and Evolution
Pre-requisite(s): PHY 4350 and 4351.

Stellar structure, hydrostatic equilibrium, radiative transfer, stellar surface phenomena, and corona interactions. Cosmical electrodynamics and nuclear reactions in astrophysics, basic stellar evolution, variable stars, degenerate cores, white dwarfs, and neutron stars. (3-0)

5351 General Relativity
Pre-requisite(s): PHY 5360.
A systematic exposition of Einstein's general theory of relativity, with emphasis on applications to astrophysical and cosmological problems.

5352 Space Plasma Physics
Pre-requisite(s): PHY 4322 and 5360 (concurrently) or consent of the instructor.
Space plasma and electromagnetic field phenomena; the guiding center drift equation (with applications); adiabatic invariant theory; the basic equations of magnetohydrodynamics; plasma convection, currents (including Chapman-Ferraro currents and ring currents), oscillations; magnetohydrodynamic boundaries, diffusion, waves, shocks, and instabilities. (3-0)

5360 Mathematical Physics I
Pre-requisite(s): MTH 2321 and 3325.
Theory of analytical functions, Laplace and Fourier transforms, Fourier series, theory of distributions, ordinary differential equations, eigenvalue problems, special functions defined by eigenvalue problems, Green's functions, partial differential equations, radiation problems and scattering problems. (3-0)

5361 Mathematical Physics II
Pre-requisite(s): PHY 5360 or consent of instructor.
Conformal mapping, electrostatic problems, dispersion relations, asymptotic expansions, method of steepest descent, calculus of variations, Rayleigh-Ritz principle, finite-dimensional vector spaces, matrix theory, orthogonal transformations, normal coordinates, Hilbert vector spaces, unitary transformations, resolvent operators, operator calculus, integral equations, and approximate methods for solution of boundary value problems. (3-0)

5370 Quantum Mechanics I
Schrodinger equation, eigenfunctions and eigenvalues, harmonic oscillator, and hydrogen atom. WKB approximation, collision theory, matrix formulation of quantum mechanics, transformation theory, and representation theory, including Schrdinger and Heisenberg picture. (3-0)

5371 Quantum Mechanics II
Pre-requisite(s): PHY 5370.
Angular momentum algebra, Pauli Principle, many-particle systems, conservation laws, symmetry principles, time-dependent approximation methods, time-independent approximation methods, atoms, molecules, and relativistic wave equations. (3-0)

5381 Special Topics in Physics
Pre-requisite(s): Consent of instructor and the departmental adviser.
Selected topics in physics. May be repeated once with change of content. (3-0)

5V95 Graduate Research **1 to 9 sem. hrs.**
Pre-requisite(s): Consent of student's research supervisor and departmental adviser.
The research is intended for those students who have not yet passed the Ph.D. qualifying examination and who have not yet selected a Ph.D. dissertation topic. May be repeated for no more than twelve semester hours of credit. (Not to be counted on master's degree). (0-9) or (3-0)

5V99 Thesis **1 to 6 sem. hrs.**
Pre-requisite(s): Twelve semester hours of graduate work and consent of the department.

6350 Relativistic Astrophysics
Pre-requisite(s): PHY 5350 and 5351.
Relativistic astrophysics, and the final stages of stellar evolution; supernovae, binary stars, accretion disks, pulsars; extragalactic radio sources; active galactic nuclei; compact objects.

6351 Cosmology
Pre-requisite(s): PHY 5350 and 5351.

Cosmology: extragalactic distance determinations; relativist relativistic cosmological models; galaxy formation and clustering; thermal history of the universe, microwave background; cosmological tests, advanced topics in general relativity.

6352 High-Energy Astrophysics
Pre-requisite(s): PHY 5330, 5340, 5360 and 5370.

Radiative transfer, scattering, the interaction of matter and radiation, atomic and molecular structure, magnetodrodynamics and plasma physics, accretion disks and spiral density waves.

6370 Advanced Quantum Mechanics
Pre-requisite(s): PHY 5371.

Identical particles and symmetry, self-consistent field theory, spin and angular momenta, electromagnetic interactions, semiclassical radiation theory, many-body perturbation theory, topics in scattering theory. Applications to atomic, molecular, and nuclear systems. (3-0)

6371 Relativistic Quantum Mechanics
Pre-requisite(s): PHY 5371.

Klein-Gordon equation, Dirac equation, solutions of Dirac equation for scattering and bound states, non-relativistic limits of Dirac solutions, hole theory, Feynman diagrams, quantum electrodynamics, renormalization procedures, non-electromagnetic processes, solutions. (3-0)

6372 Elementary Particle Physics
Pre-requisite(s): PHY 5371.

Basic concepts of elementary particle physics; symmetries, groups, and invariance principles; hadron-hadron interactions; static quark model of hadrons; weak interactions; brief introduction to quantum chromodynamics. (3-0)

6373 Quantum Field Theory I
Pre-requisite(s): PHY 4374, 5370, 5371, or 6371; or consent of instructor.

Second quantization of free fields; second quantization of interacting fields; elementary processes - Q.E.D. and non-Q.E.D. examples; perturbation theory methods for higher order processes; renormalization theory; path integral realization of quantum field theory.

6374 Quantum Field Theory II
Pre-requisite(s): PHY 6373.

Modern formulation of quantum field theory: quantization and renormalization of gauge theories, both Abelian and non-Abelian; third quantization; applications in the Q.E.D. example; SU2L XU1 theory; quantum chromodynamics; grand unified theories; theories of everything including quantum gravity such as the superstring theory.

6375 Quantum Field Theory III
Pre-requisite(s): PHY 6374.

Continuation of 6374: Detailed theory of higher order corrections to Standard Model and beyond the Standard Model processes; detailed presentation of recent developments in superunification, superstring/M theory, superstring field theory, and other approaches to quantum general relativity, depending on instructor. May be repeated for credit by instructor for a maximum of nine credits.

6380 Special Topics in Advanced Physics
Pre-requisite(s): Consent of student's graduate committee.

Special topics which are related to specialized fields of research sponsored in the department. May be repeated once with change of content. (3-0)

6V99 Dissertation **1 to 12 sem. hrs.**
Pre-requisite(s): Consent of the student's supervisory committee and admission to candidacy.
A minimum of twelve semester hours is required.

POLITICAL SCIENCE (PSC)

AMERICAN POLITICAL INSTITUTIONS (PSC)

4300 Political Behavior
Psychological and social dimensions of political behavior including political images, culture and socialization, participation, leadership, elites, parties and interest groups, voting behavior, and decision-making processes.

4310 Politics and Communication (Cross-listed as CSS 4310)
The dynamic relationships between political and communication institutions; topics include political discourse, news and information, and portrayal of politics in popular entertainment.

4320 African American Politics
Pre-requisite(s): Upper-level standing.
Contemporary African American politics, including leading theories and paradigms, important social and political movements, prominent leaders, party politics, and role of the "Black Church."

4330 Urban Political Processes (Cross-listed as ENV 4330)
Political institutions and processes in metropolitan areas, including social, economic, and governmental problems resulting from increased urbanization.

4340 African American Communication (Cross-listed as CSS 4354)
See CSS 4354 for course information.

4350 Political Parties
Pre-requisite(s): Upper-level standing.
The diverse roles of political parties in representative democracies, with emphasis on the American experience.

4351 Criticism of Contemporary Public Address (Cross-listed as CSS 4351)
See CSS 4351 for course information.

4370 Politics and Religion
Pre-requisite(s): Upper-level standing.
The dynamic interaction between religion and politics in the United States and other countries, including the effect of political outcomes in the context of voting, legislative and executive policymaking, and the law.

4380 Government and Business
Government in relation to the economy. Public policy with respect to such vital areas as maintenance of competition, public utilities, transportation, labor, agriculture, protection of the investor, and foreign economic policy. (Not to be taken if ECO 4317 has already been taken for credit.)

5310 Seminar in American Politics
Examination of American politics, institutions, and behavior. Topics will vary within the subfield of American politics. May be repeated three times for graduate credit when topics differ.

5330 American Political Development (Cross-listed as AMS 5330)

Study of the development and reform of political institutions and practices over the course of American history.

5340 The American Founding (Cross-listed as AMS 5340)

Study of the debates on the proper structure, institutional arrangements, and purposes of government during the Founding period focusing on the creation and ratification of the American constitution.

5350 Seminar in Presidential Rhetoric (Cross-listed as CSS 5350)

Survey of the genres of presidential rhetoric and theories of the rhetorical presidency; critical analysis of presidential discourse in selected eras, with focus on texts in context; methods of evaluating presidential communication.

5V12 Graduate Internship **1 to 6 sem. hrs.**

Pre-requisite(s): Consent of Director of Graduate Studies required.

Internship of a minimum of three months of supervised, full-time employment. The experience combines practical field experience and research. Completion of the course requires a written report on the work done during the internship. Students seeking the MA in International Relations must work in a public or private concern involved in international affairs. Students seeking the MA in Public Policy Administration or the JD/MPPA must work in a public-sector agency. All students must secure the permission of the Director of Graduate Studies to take this course.

COMPARATIVE POLITICS (PSC)

4304 Governments and Politics of Latin America

Forms of organization, functions, and operations of governments in Latin America, with emphasis on contemporary conditions, trends, and distinctive types of Latin American institutions and policies.

4314 Government and Politics of Mexico

Constitutional development and political processes in the Mexican federal system. Emphasis will be placed on twentieth-century constitutional and political change, with special attention given to the current scene.

4324 British Government and Politics

Foundations, processes, and politics of British government. Emphasis will be given to political parties and interest groups, parliament, cabinet and administration, judiciary, and the prime minister. Analysis of current political issues and policies will be undertaken.

4334 Governments and Politics of the Middle East

Political structures and processes of the Middle East nations with an emphasis on elites, political parties, interest groups, and bureaucracies. Inter-regional relations, nationalism, the impact of religion and the Arab-Israeli conflict will be considered. Problems of nation-building, regional cooperation, as well as super- and great-power penetration, will also be explored.

4344 Government and Politics of Russia

Historical and cultural background, the organization and functions of government, and the theory and practice of Russian politics. Emphasis is given to Russia's relationships with associated states.

4354 Governments and Politics of Western Europe

Pre-requisite(s): Upper-level standing.

A comparative study of the forms of government organization, political processes, and major developments in Western Europe. Course emphasizes parliamentary forms of democracy.

4364 The Governments and Politics of the Asia-Pacific Region (Cross-listed as AST 4364)
Historical development of the Asia-Pacific region, with a focus on the contrasting roles played by China, Japan, and the United States. Discussion of alternative models of economic development and the impact of ASEAN and APEC on regionalism. Survey of the socio-political conditions in and among the region's states, with special attention devoted to Korean unification and cross-strait relations.

4374 Governments and Politics of East Asia (Cross-listed as AST 4374)
Government organization and functions, political processes, and major developments in the political systems of Japan, China, and Korea since World War II.

4379 Islam and Democracy
Pre-requisite(s): Upper-level standing.
Examines the evolution of political philosophy and institutions in Muslim culture.

5324 Seminar in Comparative Politics
Political culture, institutions, processes, and policies from a cross national perspective. Emphasis on role of political, economic, social, and cultural factors relating to political development, stability, and organization. Research topics and primary country analyses may vary.

INTERNATIONAL RELATIONS (PSC)

4303 International Human Rights
Pre-requisite(s): Upper-level standing.
The philosophy and implementation of human rights protection in the United States and abroad.

4315 Political Geography
Concepts and principles of political geography. Analysis of dynamics of spatial relations and interactions of states. Comparison of main approaches, including geo-politics. Study of state elements, especially territorial integrity and frontiers. Survey and analysis of world political patterns.

4316 Grand Strategy
Pre-requisite(s): Upper-level standing.
The relationship between a great power's grand strategy and stability in international politics.

4325 Asian International Relations (Cross-listed as AST 4325)
Historical and cultural background and structure of the emerging international order in Asia, with particular attention to the role of Japan, Russia and the Soviet successor states, and the People's Republic of China.

4335 Public Discourse and Foreign Policy (Cross-listed as CSS 4353)
See CSS 4353 for course information.

4346 Intelligence and Covert Action
Pre-requisite(s): Upper level standing.
The impact of intelligence, counterespionage, and covert action policies on national security policy and international relations.

4355 Power, Morality, and International Relations
Pre-requisite(s): Upper-level standing.
The influence of moral principles on international politics.

4365 International Political Economics
Pre-requisite(s): Junior standing or above.
The intersection of politics and economics at the domestic and international levels. Political outlooks considered include liberalism, Keynesianism, and Marxism.

4375 International Organization
Fundamentals of international politics and international law, advancing to an intensified study of past and, particularly, present international organizations, especially the United Nations.

4385 Diplomacy in Theory and Practice
Pre-requisite(s): Upper-level standing.
How states and other international actors communicate and pursue their foreign policy objectives through the use of diplomatic agents and techniques.

4395 Terrorism
Pre-requisite(s): Upper-level standing.
The effectiveness of terrorism as a coercive strategy for states and non-state actors as well as the threat terrorism poses to the interests of the United States.

5315 Development of International Relations Thought
A study of major thinkers on international politics through history, with reference to contemporary international relations thought.

5325 Seminar in International Relations
Theories concerning relations among nations, foreign policy formation and administration, cases of cooperation and conflict within the society of nations. Research topics vary so as to cover a broad range of contemporary issues, problems, and diplomatic practice.

5335 Seminar in National Security Decision Making
Analysis of the components of national security strategy and those international and domestic factors that shape it. Seminar covers the process, factors, institutions, and issues in national security decision making.

5345 American Foreign Policy
Course examines the theory and practice of American foreign policy. Emphasis is on major issues in United States diplomacy and basic ideas governing American foreign policy.

5355 Development of Strategic Thought
This seminar will examine the ideas of strategic thinkers who lived in a variety of historical periods. Students will read works by major strategists including Thucydides, Sun Tzu, Machiavelli, and Clausewitz.

5395 Professional Paper in International Relations
Under the direction of a supervising professor, a problem or topic in international relations to be selected and a substantial paper to be written. This is one of the options for the master's degree in international relations.

OTHER (PSC)

4V94 Special Topics in Political Science **1 to 6 sem. hrs.**
Examination of special topics in government and politics. May be repeated once under different topic not to exceed six semester hours.

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5312 Social Science Data Analysis (Cross-listed as SOC 5312)
See SOC 5312 for course information.

5323 Research Design and Research Methods (Cross-listed as ENV 5323)

Introduction to the discipline of political science, focusing particularly on research methods, research design, and questions relating to the philosophy of science.

5391 Reading Course in Political Science

Pre-requisite(s): Graduate standing and consent of instructor.

A tutorial course designed for advanced graduate study in political science to supplement other course requirements. The nature, limits, and requirements will be established in each instance after consultation between professor and student. May be repeated under a different topic for a total of six hours credit.

5396 Teaching Political Science

Directed readings done in conjunction with an undergraduate course for which the student serves as a teaching apprentice. Course requirements include graduate-level research paper and annotated bibliography of undergraduate course materials. May be taken three times for graduate credit, in conjunction with different undergraduate courses.

5V99 Thesis **1 to 6 sem. hrs.**

Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of PSC 5V99 are required.

6V10 Prospectus Research **1 to 6 sem. hrs.**

Pre-requisite(s): Completion of regular coursework.

Supervised research for developing and writing a dissertation prospectus that will be the subject of an oral defense that will admit students to candidacy. A student may repeat this course for credit with a maximum of twelve total hours. Registration for this course is the equivalent of full-time status for graduate students.

6V99 Dissertation **1 to 12 sem. hrs.**

Pre-requisite(s): Consent of the student's supervisory committee and admission to candidacy.

Supervised research for the doctoral dissertation with a minimum of twelve semester hours required. Three to six of these hours may be taken in a section of 6V99 designed for the purpose of discussion and criticism of dissertation chapters and journal articles. Dissertation writing group will also serve as a forum for research presentations for job interviews when appropriate.

POLITICAL THEORY/POLITICAL PHILOSOPHY(PSC)

4313 Politics and Literature

Pre-requisite(s): Upper-level standing.

Study of fundamental questions of political theory as treated in works of literature. Topics may include authority, law and discretion, the individual and the community, and the nature of freedom, especially as these issues emerge in different political orders. This course may be taken more than once, for a maximum of six credit hours, when content differs.

4383 Contemporary Political Thought

Twentieth-century political ideas, with emphasis on contemporary democratic political theory and the challenges posed for traditional democratic ideals by major movements in contemporary psychological, existentialist, ethnic, feminist, socialist, and nationalist thought, and by problems arising from technology, mass society, and the observations of empirical political science.

4384 Principles of Political Development

The development of contemporary states and nations, emphasizing war, geographic location, natural resources, and cultural and religious norms as determinants of different experiences.

5311 Readings from the Philosophers (Cross-listed as PHI 5311)

See PHI 5311 for course information.

5333 Seminar in Political Philosophy (Cross-listed as PHI 5333)

Select topics and issues in contemporary political theory developed and explored with an emphasis on the seminal writings of original thinkers and on the contemporary debates surrounding these writings. Possible themes of this course include postmodern political thought, neo-Kantian and neo-Hegelian political theory, contemporary liberal and communitarian thought, theories of justice, contemporary relevance of ancient political philosophy.

5343 Classical Political Thought (Cross-listed as PHI 5343)

Study of selected major texts in classical (Greek and Roman) political thought, with an emphasis on the origin of political philosophy in the thought of Socrates and its development in the works of Plato and Aristotle. This course may be repeated, for a maximum of nine credit hours, when content differs.

5353 Medieval Political Thought (Cross-listed as PHI 5353)

Study of selected major texts in medieval political thought, with an emphasis on either major thinker(s), or theme(s). Themes may include nature and grace, politics and salvation, theology and practical wisdom. This course may be repeated, for a maximum of nine credit hours, when content differs.

5363 Modern Political Thought (Cross-listed as PHI 5363)

Pre-requisite(s): Admission to graduate program at Baylor University or consent of instructor.

Study of selected major texts in modern political thought, from Machiavelli to Nietzsche. Course may be repeated, for a maximum of nine credit hours, when content differs.

5373 Contemporary Democratic Theory

Study of themes, issues and debates defining the contemporary conversation about democracy among political theorists. Texts will include works of major importance to recent democratic theory.

5393 Advanced Seminar in Political Philosophy (Cross-listed as PHI 5393)

Concentrated study of major thinkers or texts in the history of political philosophy. This course may be taken more than once, for a maximum of eighteen credit hours, when content differs.

PUBLIC LAW (PSC)

4305 International Law

Nature and origins of international law and the rights, duties, and responsibilities of the states under that law, as well as the problems which have arisen in its interpretation and enforcement.

4307 Environmental Law (Cross-listed as ENV 4307)

See ENV 4307 for course information.

4321 Administrative Law

Nature and the law of the administrative procedure, of separation and delegation of powers, and of the scope of judicial review and other remedies against administrative actions.

4361 American Constitutional Law (Cross-listed as PSC 4361)

See PSC 4361 for course information.

4381 American Constitutional Law

Continuation of PSC 4361 but may be taken independently of that offering. Deals with those cases relating particularly to personal liberty and civil rights.

5321 Seminar in Public Law

Role(s) of the judiciary in American politics and administration. Areas examined may include American constitutional development, constitutional and legal interpretation, judicial behavior and politics, including the role of interest groups and public opinion, and judicial recruitment. May be repeated three times for graduate credit when topics differ.

5344 Comparative Constitutional Law

Comparative analysis of constitutional theory and development, the link between democracy and constitutionalism, and the role of judicial review. Different constitutional approaches to issues such as executive-legislative relations, federalism, political participation, and civil liberties will be considered.

PUBLIC POLICY/ADMINISTRATION (PSC)

4322 Seminar in Public Administration

Pre-requisite(s): Upper-level standing.

A course for upper-level undergraduates and graduate students contemplating careers requiring administrative skills. Topics, which will be chosen to meet the special needs of students, include the study of public personnel techniques and methods, project design and analysis, and program budgeting.

4342 Public Policy and the Courts

Pre-requisite(s): PSC 2302 or consent of instructor.

The Supreme Court's role in the making of public policy, including its history, its justification, and its limits. Emphasis on court cases and literature covering economic, social and civil rights issues.

5320 Seminar in Comparative Public Policy

Modern industrial state in Western democracies from a comparative policy perspective, with selected emphasis on such topics as economic management, re-industrialization, social welfare, environmental protection, education, health care, defense, and housing/transportation.

5322 Seminar in Public Administration

Special topics, including organizational theory, administrative behavior, and personnel management, financial management and budgeting, program management and evaluation, and quantitative analysis. May be repeated for credit when topics differ.

5342 Seminar on Religion, Law, and Politics (Cross-listed as PHI 5342 and REL 5340)

See PHI 5342 for course information.

5392 Professional Paper in Public Policy and Administration

Satisfies the non-thesis option for the Master of Public policy and Administration degree and the Master of Arts degree in international relations. A problem or topic in either public policy or administration will be selected, and the student will write a substantial paper for submission to the faculty. May not be taken if PSC 5V12 (Internship) is required.

PSYCHOLOGY (PSY)

4312 Behavioral Medicine (Cross-listed as MH 4312 and NSC 4312)

See NSC 4312 for course information.

4339 Psychology of Religion

Pre-requisite(s): PSY 1305 or consent of instructor.

Psychological processes in religious experience and related phenomena with a focus on religious development through the life cycle and the major psychological interpretations.

5128 Group Dynamics Laboratory

Pre-requisite(s): Psy.D. students only.

A laboratory in group dynamics for Psy.D. students emphasizing interprofessional relationships.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5301 Introduction to Experimental Design

Pre-requisite(s): Graduate standing.

Simple and complex analysis of variance and analysis of covariance designs. The general linear model approach, including full-rank and less than full-rank models, will be emphasized.

5302 Measurement in Psychology

Pre-requisite(s): PSY/STA 5301 or consent of the instructor.

Principles and methodology underlying scaling techniques, rating devices, psychological tests, and other forms of measurements used in psychology. Includes an introduction to psychometrics and applications to objective personality assessment.

5305 Advanced Experimental Design

Pre-requisite(s): PSY 5301 or consent of instructor.

The course examines a variety of complex experimental designs that are available to researchers including split-plot factorial designs, confounded factorial designs, fractional factorial designs, incomplete block designs, and analysis of covariance. The designs are examined within the framework of the general linear model. Extensive use is made of computer software.

5307 Applied Regression Analysis

Pre-requisite(s): PSY 5388; or consent of instructor.

Selected topics from correlation, regression, path analysis, and generalized linear models.

5311 Seminar in Memory and Cognition (Cross-listed as NSC 5311)

See NSC 5311 for course information.

5313 Advanced Measurement in Psychology

Pre-requisite(s): PSY/STA 5301.

An introduction to item response theory and computerized adaptive testing. Emphasis on the three-parameter logistic model. Topics include parameter and ability estimation, item bias, detection of multidimensionality, appropriateness measurement, and Owens-Bayes algorithm.

5315 Quantitative Psychology

Pre-requisite(s): PSY/STA 5301.

Mathematical foundations of contemporary psychology.

5316 Clinical Psychopathology

Pre-requisite(s): Graduate standing in psychology and consent of instructor.

Clinical case formulation, including the assessment and diagnosis of problems, case conceptualization, and treatment planning, based on current theory and research.

5317 Psychotherapy III: Seminar in Psychotherapy

Pre-requisite(s): Psy.D. students only.

Advanced study of current research, theory and practice in evidence-based psychotherapy, interventions, and treatment planning.

5318 Perception (Cross-listed as NSC 5318)

See NSC 5318 for course information.

5319 Clinical Neuroscience - Advanced (Cross-listed as NSC 5319)

See NSC 5319 for course information.

5320 Learning and Behavior Theory (Cross-listed as NSC 5320)
See NSC 5320 for course information.

5321 Developmental Psychology
Pre-requisite(s): Graduate standing in psychology.
Current research and theory on normal and psychopathological development of human behavior from conception through senescence.

5322 Human Engineering
Pre-requisite(s): Consent of instructor.
Application of the methods and techniques of psychology to the problems of designing equipment for efficient human use and the design of man-machine systems.

5323 Biological Foundations of Behavior
An introduction to the biological mechanisms underlying behavior. A review of basic neuroanatomy, neuron function, neurotransmitters, emotional process, language, learning and memory function. Will also review biological correlates of targeted mental disorders such as mood and anxiety disorders, schizophrenia, and developmental and cognitive disorders.

5325 Ethics and Professional Issues in Clinical Psychology
Pre-requisite(s): Psy.D. students only.
The application of current ethical and professional standards to professional practice.

5327 Family and Marital Psychotherapy
Pre-requisite(s): Psy.D. students only.
Practice, theory, and research of psychological consultation with couples and families. Emphasis upon systems and interpersonal orientations.

5330 Neuropharmacology (Cross-listed as NSC 5330)
See NSC 5330 for course information.

5333 Psychological Assessment III
Pre-requisite(s): PSY 5431 and 5432.
Advanced study of integrated assessment, focusing on special populations including gerontology, infant assessment, health-related assessments and additional disorder-based assessments. Fee: $150

5334 Clinical Health Psychology
Pre-requisite(s): Psy.D. students only.
Foundations of clinical health psychology, applications of behavioral medicine, and the promotion and maintenance of health.

5335 Multicultural Issues
Pre-requisite(s): Psy.D. students only.
An exploration of multicultural issues in the delivery of psychological services.

5339 Social-Organizational Psychology
The application of social psychology to professional practice and organizational consultation and development.

5340 Doctoral Project in Professional Psychology I
Pre-requisite(s): Psy.D. students only.
Arrangements are made for Psy.D. candidates to undertake individual scholarly projects under the direction of a clinical psychology professor. Work includes individual study and preparation of a detailed proposal for a project in clinical psychology.

5341 Doctoral Project in Professional Psychology II
Pre-requisite(s): Psy.D. students only.
A continuation of PSY 5340, including the execution and completion of the doctoral project.

5344 History and Systems
Pre-requisite(s): Graduate standing in psychology and consent of instructor.
History and systems in psychology with a special emphasis on philosophy of science and personality theory.

5350 Advanced Personality Psychology
A review of classic personality theory and contemporary personality psychology research.

5360 Neurophysiology (Cross-listed as NSC 5360)
See NSC 5360 for course information.

5370 Administration and Supervision
Pre-requisite(s): Psy.D. students only.
Training in health care administration, supervision, consultation, program development, and evaluation.

5371 Clinical and Research Practicum I
Pre-requisite(s): Psy.D. students only.
Supervision, development, and evaluation of Psy.D. students in all aspects of their work. Introduction to clinical interviewing skills, therapeutic relationship, theories of psychotherapy, and common factors in psychotherapy and clinical assessment.

5372 Clinical and Research Practicum II
Prerequisite (s: Nine hours of PSY 5371.
Intermediate level practicum experience of supervision, development, and evaluation of Psy.D. students in all aspects of their work.

5373 Clinical and Research Practicum III
Pre-requisite(s): Nine hours of PSY 5372.
Advanced practicum experience. Supervision, development, and evaluation of Psy.D. students in all aspects of their work.

5374 Clinical Practicum and Professional Development
Pre-requisite(s): Nine hours of PSY 5373.
Practicum focusing on refining clinical and research skills. Supervision, development, and evaluation of the Psy.D. student in all aspects of her or his work.

5380 Multidimensional Scaling
Pre-requisite(s): PSY/STA 5301.
Basic scaling theory with emphasis on metric, non-metric, and individual-differences multidimensional scaling models and methodology. Applications of scaling methods to measurement problems in the behavioral and health sciences, education, and business.

5384 Multivariate Statistical Methods
Pre-requisite(s): PSY/STA 5301.
Discriminant analysis, canonical correlation analysis, and multivariate analysis of variance.

5386 Exploratory Factor Analysis
Pre-requisite(s): PSY/STA 5384 and 5301.
Exploratory factor analysis with emphasis on applications in the behavioral and health sciences, education, business, including the description and use of available software.

5388 Advanced Statistical Methods
Selected issues in applied statistics.

5389 Mathematical Models in Psychology
Pre-requisite(s): PSY/STA 5301.
Introduction to mathematical formulations in a wide range of psychological research including learning theory, decision and choice, reaction time, theory of signal detection, and other selected topics.

5390 Confirmatory Factor Analysis and Structural Equations Models
Pre-requisite(s): PSY/STA 5301.
Confirmatory factor analysis, path analysis and structural equations models, analysis of covariance structures, least squares and maximum likelihood estimation, and application to psychological processes.

5391 Multilevel Modeling
Pre-requisite(s): PSY 5301.
An introduction to multilevel modeling and hierarchical linear modeling in the behavioral sciences. Content includes both the theory behind and the application of multilevel modeling, including the analysis of unconditional models, estimation of effect size, conditional effects, growth curve models, and the analysis of dyadic data.

5410 Psychopathology and Assessment in Children
This course is designed to provide an overview of emotional and behavioral disorders of children and adolescents and theoretical foundations and applications of psychological assessment with this population.

5423 Psychotherapy II: Advanced Cognitive Behavior Therapy
Pre-requisite(s): Psy.D. students only.
Continued study of cognitive-behavioral psychotherapy. Introduction to third wave cognitive-behavioral psychotherapies including dialectical behavior therapy, acceptance and commitment therapy, motivational interviewing, mindfulness, theory, and applications. Fee: $50

5426 Clinical Intervention with Children
Pre-requisite(s): Psy.D. students only.
Theory and research of clinical intervention procedures including family therapy used with children and adolescents with psychological disorders.

5428 Group Dynamics and Psychotherapy
Pre-requisite(s): Psy.D. students only.
Didactic treatment of the theory, research, and practice of work groups and group psychotherapy together with laboratory experiences in groups.

5429 Psychotherapy I: Cognitive-Behavior Therapy
Current research and theory on cognitive-behavioral therapy approaches to clinical problems. Fee: $50

5430 Neuroanatomy (Cross-listed as NSC 5430)
See NSC 5430 for course information.

5431 Psychological Assessment I
Pre-requisite(s): Graduate standing in psychology and consent of instructor.
Introduction to assessment principles and approaches. Administration, scoring, and interpretation of intellectual, cognitive, and neuropsychological measures. Introduction to integrated report writing. Fee: $50

5432 Psychological Assessment II
Pre-requisite(s): Psy.D. students only.
Continued study of assessment. Introduction to objective and projective personality measures and disorder-based assessments and integration of the tests with various cognitive, intellectual, or neuropsychological measures. Fee: $50

5437 Social Psychology and Group Dynamics
Interrelationships of the functioning of social systems and the behavior and attitudes of individuals. Emphasis is given to the origins of various group properties and the effects of these properties upon relations among members and behavior within group experiences.

5V04 Graduate Research
For research credit prior to admission to candidacy for an advanced degree. May be repeated for credit.

5V06 Individual Studies in Psychology **1 to 3 sem. hrs.**

5V24 Individualized Professional Development and Research **1 to 6 sem. hrs.**
Pre-requisite(s): Psy.D. students only.
Opportunity for clinical psychology doctoral students to develop further their clinical research skills. Course may be repeated.

5V51 Supervised Teaching (Cross-listed as NSC 5V51) **1 to 3 sem. hrs.**
See NSC 5V51 for course information.

5V71 Selected Topics in Psychology **1 to 3 sem. hrs.**
Advanced study in an area of psychology not covered by formal courses. Course may be repeated with a different topic of study.

5V85 Consulting, Research and Teaching in Statistics **1 to 3 sem. hrs.**
Statistics program. Supervised experience in statistical research, consulting, and teaching. Course may be repeated each semester.

5V96 Research Methods in Experimental Psychology **1 to 3 sem. hrs.**
Selected laboratory methods and techniques in Experimental Psychology. May be repeated with change in content. Maximum of 3 credit hours per semester with an overall maximum of 12 credit hours.

5V99 Thesis **1 to 3 sem. hrs.**
Research, data analysis, writing, and oral defense of an approved master's thesis. At least three hours are required.

6V01 Clinical Internship **1 to 6 sem. hrs.**
Course open only to fourth-year clinical psychology doctoral students who are off campus on internship. Must be taken for three semesters.

6V10 Prospectus Research (Cross-listed as NSC 6V10)
Pre-requisite(s): Completion of required course work for PhD degree.
Supervised research for developing and writing a Dissertation Prospectus Proposal that will be subject to review and approval by the Supervisory Committee.

6V99 Dissertation **1 to 12 sem. hrs.**
Supervised research for the doctoral dissertation. These hours may be distributed over more than one semester.

PUBLIC HEALTH (PUBH)

4320 Men's Health and Wellness
Pre-requisite(s): Upper-level standing.
Focuses on issues specific to men's overall health and wellness, concepts of multiple masculinities, men's body image and the portrayal of men in media. This course is available to men and women.

4321 Human Sexuality
Pre-requisite(s): Upper-level standing.
A health education course in which basic concepts of human sexuality are analyzed and discussed. The course is designed to help students better understand the influences that affect the complex nature of human interaction and to provide accurate information needed to help develop responsible decision-making skills. Fee: $50

4327 Dying and Death Education
Pre-requisite(s): Upper-level standing.
A program of death education designed to help people to develop constructive attitudes, values, and practices. Dynamics of later life and the aging process with special emphasis on health will also be included. Fee: $50

4331 Intervention Design in Health Education
Pre-requisite(s): Public Health major, minor or consent of instructor. PUBH 2331 and 3331.
Theories and methods used to design interventions in health education and health promotion. A special emphasis is focused on health behaviors and life-style changes.

4340 Global Health (Cross-listed as NUR 4340)
Overviews global health issues and the role of health education and public health worldwide.

4341 Cross-Cultural Health Communication
Overviews cross-cultural communication concepts/strategies used in health education to assess health needs and communicate health information. Designed for field-based international or local culture-specific settings.

4355 Human Diseases
Pre-requisite(s): A minimum grade of C in PUBH 3350.
Basic principles of pathophysiology and mechanism of diseases affecting the human body, including basic principles of epidemiology with emphasis on the causation and effects of disease on human populations.

5001 Professional Seminars in Public Health
Orients students in the Baylor Master of Public Health program to the degree program purpose, requirements, and opportunities. Includes concepts and practical guides for developing professional skills and preparing to enter the public health workforce. Fee: $50

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5302 Foundations of Environmental Health Science (Cross-listed as ENV 5302)
See ENV 5302 for course information.

5315 Theoretical Foundations of Health Behavior and Public Health
Theoretical models and concepts of social and behavioral health. Theory-based approaches to public health education and health promotion.

5329 Current Health Issues

Current health issues and directed study to provide appropriate graduate-level experience in health-content areas.

5334 Foundations of Public Health

Foundational concepts, principles, and practices of public health and population health.

5337 Public Health Concepts in Epidemiology

Descriptive and analytical epidemiological methods in the investigation of diseases of contemporary public health interest.

5340 Therapeutics for Allied Health Professionals

Pre-requisite(s): Graduate standing.

A survey of the various therapeutic modalities in the clinical practice of medicine. Designed for students pursuing careers in health education, health/fitness, gerontology, psychology and other allied health fields.

5348 Applied Data Analysis for Epidemiology and Population Health

Pre-requisite(s): PUBH 5337 and PUBH 5300 or equivalent.

An applied computer analytic course designed to provide a foundational background in health-related data management and analysis using SAS software. Topics include primary data collection, importing and managing data sets, creating and modifying variables, univariate analysis, bivariate analysis, and introduction to linear and logistic regression models.

5350 Assessment and Planning in Public and Community Health

Principles, models, and methods of assessment and program planning in public health.

5360 Evaluation in Public and Community Health

Pre-requisite(s): PUBH 5350.

Program evaluation and measurement concepts and practical applications in public health.

5366 Preventive Health in Medically Underserved Populations

The study of multicultural preventive health and health promotion efforts in medically underserved populations. Examines traditional cultural health beliefs and practices of a variety of ethnic groups and overviews the culture of poverty. The course will also focus on conducting culturally competent health research among medically underserved populations.

5368 Preventive Health in Aging Populations

Overviews the psychosocial theories and concepts of aging including terminology used in preventive health among aging populations. Research evidence for health disparities among aging populations will be covered as well as the practical application of research in order to work effectively with aging individuals in a variety of settings (e.g., faith-based, recreational/leisure).

5370 Physical Activity and Public Health

This course introduces and explores the social and behavioral epidemiology of physical activity in public health, including outcomes, influences, and promotion for individuals, various settings, communities, and the population at large. In addition, this course will develop an understanding of policy and advocacy as it pertains to physical activity promotion.

5377 Principles and Philosophy in Health, Human Performance and Recreation

Bases of principles, the evolution of principles and philosophies, and the interpretation and application of principles to program development and conduct.

5378 Administration and Leadership in Public Health

Public health policy and systems thinking. Administrative and leadership approaches to developing and managing fiscal and human resources in public health programs.

5379 Research Methods in Health, Human Performance, and Recreation (Cross-listed as HP 5379 and RLS 5379)

See HP 5379 for course information.

5V70 Special Topics in Health, Human Performance, and Recreation (Cross-listed as HP 5V70 and RLS 5V70) 1 to 6 sem. hrs.

See HP 5V70 for course information.

5V74 Professional Literature Seminar in Health, Human Performance and Recreation (Cross-listed as HP 5V74 and RLS 5V74) 1 to 6 sem. hrs.

See HP 5V74 for course information.

5V75 Seminar in HHPR (Cross-listed as HP 5V75 and RLS 5V75) 1 to 3 sem. hrs.

See HP 5V75 for course information.

5V90 Public Health Internship 6 to 7 sem. hrs.

Full-time experience in an agency, corporation, or hospital for on the job training in a professional field.

5V94 Public Health Practicum 1 to 3 sem. hrs.

Part-time experience in an agency, corporation, or hospital for exposure to various professional areas of employment.

5V99 Thesis (Cross-listed as HP 5V99 and RLS 5V99) 1 to 6 sem. hrs.

See HP 5V99 for course information.

QUANTITATIVE BUSINESS ANALYSIS (QBA)

5131 Quantitative Methods for Decision Making: Part I

Pre-requisite(s): Admission to MBA program.

Today's managers operate within the constraints of highly competitive markets. To plan effectively under these circumstances requires both rigorous analytical tools and a sophisticated sense of how to balance the demands of oft-times conflicting constituencies. QBA 5131, using a mix of theory and case studies, enables students to develop a rich portfolio of tools to assist them in the planning process. The course seeks to develop students' technical skills in sampling, data analysis, and risk management tools essential to effective planning.

5132 Quantitative Methods for Decision Making: Part II

Pre-requisite(s): QBA 5131.

In today's highly competitive markets, implementing decisions effectively requires both rigorous analytical tools and a sophisticated sense of how to balance the demands of oft-times conflicting constituencies. QBA 5132, using a mix of theory and case studies, enables students to develop tools essential to effective implementation. The course seeks to prepare students to use analytical tools including correlation analysis, regression analysis, and time series analysis.

5133 Quantitative Methods for Decision Making: Part III

Pre-requisite(s): QBA 5132.

To effectively adapt to today's ever changing competitive environment requires both rigorous analytical tools and a sophisticated sense of how to balance the demands of conflicting constituencies. QBA 5133, using a mix of theory and case studies, enables students to develop a set of tools to help them adapt to an organization's changing needs. The course seeks to develop students' technical skills in linear programming, quality control and improvement, and experimental design.

5215 Statistical Analysis

Prerequisite: Acceptance into the executive MBA program.

Application of statistical reasoning and methods to business-oriented problems. Topics include descriptive statistics, sampling distributions, confidence intervals, hypothesis testing, simple and multiple regression, quality control, and nonparametric methods.

5302 Business Foundations - Statistics

This course is required for MBA and MSIS students who do not have an undergraduate degree in business from an AACSB accredited institution. The course will provide students with the business foundation in statistics which is expected of all business graduate students.

5330 Business Analytics for Decision Making

An introduction to analytical techniques in the three areas of business analytics – descriptive, prescriptive, and predictive – and their application to business decision making.

5435 Business Statistics

Statistical theories and techniques are applied to business situations. The use of theory and case studies enables students to develop technical skills in planning, analysis, and assessment of data to adapt to an organization's changing needs.

RECREATION AND LEISURE SERVICES (RLS)

4331 Meanings, Culture, and Philosophy of American Landscapes

A critical approach to understanding the meanings, culture, and philosophies Americans ascribe to natural landscapes. Traditional perspectives including colonial American, romantic, and science-based conservation are characterized, as well as revisionist themes aligned with gender, cultural pluralism, and societal meanings of natural resource based protected areas. Fee: $50

4395 Principles of Church Recreation

History, philosophy, objectives, and administration of recreation in the church and how it relates to the total ministry of the church. It will include an overview of various areas of church recreation and an investigation of leisure and its value in a church setting.

5301 Leadership and Supervision of Outdoor Adventure Activities

Leadership of outdoor adventure activities in a variety of leisure settings with focus on liability, supervision, and management standards. (Lab fee required.) Fee: $50

5376 Facility and Event Management (Cross-listed as HP 5376)

See HP 5376 for course information.

5377 Issues and Trends in Human Performance and Sport Management (Cross-listed as HP 5377)

See HP 5377 for course information.

5379 Research Methods in Health, Human Performance, and Recreation (Cross-listed as PUBH

5379 and HP 5379)

See HP 5379 for course information.

5391 Administrative Practices and Issues in Leisure Services

Awareness of legal, legislative, political, organizational, policy, planning, evaluation, and managing human resources and relationships in leisure service programs considering professional trends and directions.

5392 Leisure Well-Being in Later Life (Cross-listed as RED 5392 and SOC 5392)
Focus on how to create leisure opportunities to contribute to well-being of individuals in later years. Students will be involved in developing innovative approaches to leisure experiences for senior adults. Lab experience required.

5396 Administrative Practices and Issues in Recreation Therapy
Pre-requisite(s): Foundation of therapeutic recreation; or consent of instructor.
Financial, personnel, reimbursement, legal, legislative standards of practice and criteria applied during operation of clinical and community programs and services with persons with disabilities

5V70 Special Topics in Health, Human Performance, and Recreation (Cross-listed as HP 5V70 and PUBH 5V70) 1 to 6 sem. hrs.
See HP 5V70 for course information.

5V74 Professional Literature Seminar in Health, Human Performance and Recreation (Cross-listed as HED 5V74 and HP 5V74) 1 to 6 sem. hrs.
See HP 5V74 for course information.

5V90 Internship (Cross-listed as HP 5V90) 1 to 6 sem. hrs.
See HP 5V90 for course information.

5V94 Practicum in HHPR (Cross-listed as HP 5V94) 1 to 3 sem. hrs.
See HP 5V94 for course information.

5V99 Thesis (Cross-listed as PUBH 5V99 and HP 5V99) 1 to 6 sem. hrs.
See HP 5V99 for course information.

RELIGION (REL)

BIBLICAL & RELATED LANG (REL)

4303 Aramaic (Cross-listed as ARA 4303)
See ARA 4303 for course information.

4304 Syriac (Cross-listed as SYR 4304)
Pre-requisite(s): REL 1310, 1350 and Upper-level standing.
Introduction to ancient Syriac with selected readings from Syriac manuscripts of biblical books as well as early Christian literature.

5325 Ugaritic Grammar and Lexicography (Cross-listed as UGA 5306)
See UGA 5306 for course description.

5326 Akkadian Cross-listed as AKK 5307
See AKK 5307 for course information.

HISTORICAL STUDIES (REL)

5131 Historical Area Colloquium
Pre-requisite(s): Doctoral students only.
A seminar in which doctoral students concentrating in the Historical Area meet with the Historical Area faculty for written presentations and discussions of guided readings in classical and contemporary studies in the discipline. May be taken six times for credit.

5330 The Pentecostal Tradition

A study of the Pentecostal tradition in Christianity, with particular attention to roots in the Holiness movement of the nineteenth century, origins and developments, and subsequent growth in Charismatic expressions of faith. The course may be taken up to two times if the content differs.

5331 History of Ancient Christianity

Patristic literature up to 500 CE. Selections for study will be made from apocryphal, apologetic, polemical, doctrinal and biographical types of literature. Careful attention will be given to at least one of the following ecclesiastical histories: Eusebius of Caesarea, Socrates, Sozomen, and Theodoret. The course may be taken up to three times when content differs.

5332 History of Medieval Christianity

Eastern and western medieval Christianity from the fall of Rome to the fall of Constantinople, with particular emphasis on such topics as the papacy, monasticism, the Carolingian Renaissance, the separation of eastern and Western Catholicism, scholasticism, and medieval sectarianism. The course may be taken up to three times when content differs.

5333 History of the Continental Reformation

Lutheran, Reformed, and the Roman Catholic aspects of the sixteenth-century Reformation in Europe. This course may be taken up to three times when content changes.

5334 History of the English Reformation

The Reformation as it developed in England with particular attention to the background of the English church in the late Middle Ages; the influence of Wycliffe, Tyndale, and the English Bible; the progress of reform under the Tudors and the Stuarts; the rise of Puritanism and nonconformity; the Civil Wars; and toleration. The course may be taken up to three times when content differs.

5335 Modern European Christianity

History of European Christianity since the Reformation. The course may be taken up to three times when content differs.

5336 History of American Christianity (Cross-listed as AMS 5336)

History of American Christianity from pre-Columbian Christian settlements to the present, with particular emphasis on major movements and problems such as Puritanism, religious liberty, revivalism, westward expansion, the rise and growth of denominations, and post-Civil War trends. The course may be taken up to three times when content differs.

5337 Baptist History

Source materials of Baptist history and polity with particular attention devoted to Baptist origins, development, theological positions, leaders, and current trends. The seminar approach will be followed, and the course may be taken up to three times when content differs.

5340 Seminar on Religion, Law, and Politics (Cross-listed as PHI 5342 and PSC 5342)

See PHI 5342 for course information.

5349 The Radical Reformation

An in-depth look at the Radical Reformation, also called the Believers' Church movement and the Anabaptist tradition. Examination of key primary texts to illustrate the diverse and developing theology of these reformers and their offspring, plus their institutional manifestations. Research essays and bibliographic work required.

5372 Church and State During the Reformation Era

Church-state relations were among many cultural relationships that were redefined during the Protestant Reformation period; however, scholars differ as to the reformers' influence in this transformation and in the development of liberal social orders throughout Europe. Martin Luther, John Calvin, Ulrich Zwingli, Anabaptist leaders, Anglican scholars, Catholic officials, and many others contributed unique and often conflicting views of the "appropriate" relationship between church and

state. This course examines the broad contours of church-state thought during the Reformation period beginning with the conciliar movement in the 14th and 15th centuries and ending with the Peace of Westphalia in 1648 and its influence in constructing the modern nation-states of Europe.

5373 Contemporary Issues in Historical Studies

A selected major issue in contemporary Historical Studies scholarship. The course may be taken up to three times when content differs.

NEW TESTAMENT STUDIES (REL)

5111 New Testament Colloquium

Pre-requisite(s): Ph.D. students only.

A seminar in which doctoral students concentrating in New Testament Studies meet with the New Testament faculty for written presentations and discussion of guided readings in classical and contemporary studies in the discipline. May be taken six times for credit.

5311 Contemporary Issues in New Testament Study

A selected major issue in contemporary New Testament scholarship. The course may be taken up to three times when content differs.

5312 Seminar in the Pauline Epistles

A designated portion of the New Testament scriptures chosen from the Pauline Epistles. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5313 Seminar in the Synoptic Gospels

A designated portion of the New Testament scriptures chosen from the Synoptic Gospels. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5314 Seminar in the Johannine Literature

A designated portion of the New Testament scriptures chosen from the Johannine Literature. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5315 Seminar in Acts, Hebrews, and the General Epistles

A designated portion of the New Testament scriptures chosen from Acts, Hebrews, or the General Epistles. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5317 Seminar in New Testament Greek (Cross-listed as GKB 5317)

Hellenistic Greek based upon the translation and exegesis of selected portions of the New Testament and other early Christian literature. Attention will be given to grammar, lexicography, and textual criticism. The course may be taken up to three times when content differs.

5318 New Testament Theology

The history and nature of the discipline New Testament Theology, focusing on methodology, personalities, and major works.

OLD TESTAMENT STUDIES (REL)

5101 Old Testament Colloquium
Pre-requisite(s): Ph.D. students only.
A seminar in which doctoral students concentrating in Old Testament Studies meet with the Old Testament faculty for written presentations and discussion of guided readings in classical and contemporary studies in the discipline. May be taken six times for credit.

5301 Contemporary Issues in Old Testament Study
A selected major issue in contemporary Old Testament scholarship. The course may be taken up to three times when content differs.

5302 Seminar in the Torah
A designated portion of the Old Testament scriptures chosen from the Torah. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5303 Seminar in the Former Prophets
A designated portion of the Old Testament scriptures chosen from the Former Prophets. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5304 Seminar in the Latter Prophets
A designated portion of the Old Testament scriptures chosen from the Latter Prophets. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5305 Seminar in the Writings
A designated portion of the Old Testament scriptures chosen from the Writings. Attention will be given to critical and theological problems, relevant bibliography, contributions of significant scholars, and contemporary issues in interpretation. The course may be taken up to three times when content differs.

5308 Old Testament Theology
The history and nature of the discipline Old Testament Theology focusing on methodology, personalities, major works, and central themes.

5309 Selected Documents from the Hebrew Scriptures (Cross-listed as HEB 5309)
See HEB 5309 for course information.

5323 The History of Ancient Israel
Pre-requisite(s): M.A. or Ph.D. standing in the department.
A graduate seminar focusing on ancient Israelite history and historiography. The course will involve a thorough overview of the history of Syria-Palestine and a rigorous examination of the interests and intentions of the ancient writers. While archaeological and geographic evidence will to some extent inform the subject matter of the course, the primary emphasis will be on information gained from the written sources, both biblical and epigraphic.

5324 Syro-Palestinian Archaeology
Pre-requisite(s): M.A. or Ph.D. standing.
A graduate seminar focusing upon the archaeology of Syria and Palestine from the Early Bronze Age through the Persian Period (ca. 3300-334 B.C.E). Emphasis will be given to the use and interpretation of archaeological data with special reference to the Old Testament.

RESEARCH (REL)

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5399 Religion Colloquy

Pre-requisite(s): Twenty-four semester hours of graduate course work.

Required as a co-requisite for participation in the Teaching Fellows Program. The colloquy will address a broad range of institutional and pedagogical issues related to the teaching of religious traditions and especially the Christian tradition in an academic context.

5V00 Special Studies in Religion 1 to 3 sem. hrs.

Special research projects that are needed in the students' graduate programs, but that are unavailable in the regular curriculum. The course may be for up to three hours credit, with preference given to those in their final year of study.

5V99 Thesis 1 to 3 sem. hrs.

Students register for the thesis and receive credit when the thesis is finally approved.

6V00 Dissertation Proposal and Prospectus 1 to 3 sem. hrs.

Research for doctoral students studying for preliminary examinations, preparing their topic proposal, or writing their prospectus in anticipation of candidacy. The course may be repeated.

6V99 Dissertation 1 to 9 sem. hrs.

Supervised research for the doctoral dissertation. A total of at least nine semester hours is required for the completion of the dissertation.

THEOLOGICAL STUDIES (REL)

4388 Christian Literary Classics (Cross-listed as ENG 4388)

Pre-requisite(s): REL 1310 and 1350; and upper level standing.

A study of the various ways in which theological and imaginative excellence is displayed in such classic Christian authors as Augustine, Dante, Herbert, Bunyan, and Hopkins.

5151 Theology Colloquium

Pre-requisite(s): Ph.D. students only.

A seminar in which doctoral students concentrating in theology will meet with faculty for written presentations and discussions of guided readings in patristic, medieval, reformations, and modern texts in theology and related fields. May be taken six times for credit.

5350 Issues and Themes Within Patristic Thought

Knowledge of French or German required. Formulation of a Christian doctrine of God came to a crisis in the fourth century when a series of conflicts over the relation of the Father and Son erupted and absorbed the intellectual energies of the Church for almost a century. As a result of the so-called "Arian controversy," various points of Trinitarian and Christological doctrine became canonized for defining orthodoxy. These have functioned as norms for all subsequent doctrinal and exegetical development, profoundly shaping the theological identity of the Church. Moreover, in the last thirty years, scholarship has been greatly altered by a number of changes in the interpretation of major figures and doctrinal development in the fourth century such that a significant amount of re-writing of historical theology is currently taking place. It is clear that the Nicene-"Arian" conflicts went through distinct stages and were more complicated and less compartmentalized than presented in many histories of the period. Course may be taken up to three times when content changes.

5351 Medieval Theology

The thought and practice of Christianity in the Middle Ages. Select major texts will be read, either in a format that examines the works of various writers, or with a focus on one major theologian (e.g.,Anselm, Aquinas) or theme (e.g., monasticism, scholasticism). A reading knowledge of Latin is preferable, and either French or German is required. Course may be taken up to three times when content differs.

5352 The Nicene-'Arian' Controversies of the Fourth Century

Investigation of the development of Trinitarian theology in the first four decades of the fourth century leading up to the council of Nicaea and its immediate aftermath. After touching on antecedent works by Origen and Eusebius, the course focuses upon the writings of Athanasius and Arius of Alexandria, Eusebius of Caesarea, Eusebius of Nicomedia, and Marcellus of Ancyra, concluding with the council of Serdica (342/3). Course may be taken up to three times when the content differs.

5353 Nineteenth-Century Theology

Major developments of nineteenth-century theology and their continuing relevance. One or more selected major theologians or movements will be examined. The course may be taken up to three times when the content differs.

5354 Twentieth-Century Theology

Major developments of twentieth-century theology and their continuing relevance. One or more selected major theologians or movements will be examined. Course may be taken up to three times when content differs.

5356 Contemporary Systematic Theologies

Systematic theology as a genre of theology within the Christian tradition. Emphasis will be placed on systematic theologies written after Barth and Tillich. Analysis of these works will focus on questions of method as well as content. Special attention will be paid to issues related such developments as liberation and feminist theology and postmodern thought. Course may be taken up to three times when the content differs.

5357 The 20th Century Catholic Renascence

The resurgence of Roman Catholic theology and literature in the previous century, as well as its continuing relevance for our time.

5358 Seminar on Liberation Theology

Various liberation theologies that have emerged over the last decades in Latin America, Africa, Asia, and North America. Included will be the pioneering work of James Cone, Gustavo Gutierrez, Rosemary Ruether and the theological and political schools of thought that have followed and extended their analyses. Course may be taken up to three times when the content differs.

5360 Contemporary Theological Problems

Important theological problems which confront the theologian and the Christian community today. Problems such as faith and science, theological language, evil, theology and history, and Christian selfhood and modern psychology studied. Both historical and contemporary attempts to deal with the problems will be considered. The course may be taken up to three times when content differs.

5362 Christian Anthropology

Meaning and relevance of the Christian understanding of humanity for contemporary existence in the light of Biblical, classical, ancient, and modern interpretations. Course may be taken up to three times when the content differs.

5363 Christology

Historical development and theoretical systematization of major Christological themes, giving special attention to interrelation of materials from Biblical studies, history of dogma, and systematic theology. Course may be taken up to three times when the content differs.

5393 Contemporary Problems in Christian Ethics

A research seminar focusing on ethical problems in the contemporary society and the resources available in the Judeo-Christian traditions for analyzing these problems. Students will work on a specific problem or problems Emphasis will be placed on developing technique and discovering the resources available for ethical analysis. The course may be taken up to three times when content differs.

RUSSIAN (RUS)

5370 Russian for Reading Knowledge I

Co-requisite(s): RUS 5371.

Reading of intermediate-level Russian texts. No previous language experience required. Limited to graduate students or undergraduate students by petition. Does not count towards foreign language requirement for undergraduate students.

5371 Russian for Reading Knowledge II

Co-requisite(s): RUS 5370.

Continuation of RUS 5370. Reading of more advanced Russian texts. Limited to graduate students or undergraduate students by petition. Does not count towards foreign language requirement for undergraduate students.

SLAVIC AND EAST EUROPEAN STUDIES (SEES)

4363 Traditional Music and Culture in Europe (Cross-listed as MUS 4363)

See MUS 4363 for course information.

4379 The Cold War (Cross-listed as HIS 4379)

See HIS 4379 for course information.

SOCIAL INNOVATION COLLABORATIVE (SIC)

5V98 Special Topics in Social Innovation

Pre-requisite(s): Graduate standing or permission of the instructor.

Study of advanced topics in social innovation, with attention to a particular "wicked" problem. This course may be repeated three times when topics differ, not to exceed nine semester hours.

SOCIAL WORK (SWO)

6331 Christianity, Ethics, and Social Work

Pre-requisite(s): Admission to PhD program.

Explores research, theory, and practices related to religion and spirituality as they can inform social work practice. Specific emphasis is placed on the role of religion in contemplating the meaning of well-being and social justice.

6332 Social Policy and the Religious Sector

Pre-requisite(s): Admission to PhD program.

Through current research, congregations and religiously affiliated organizations are examined, specifically through the lens of history, social work practice, social capital, and organizational theories, behaviors, and identities.

6333 Religious and Cultural Diversity
Pre-requisite(s): Admission to PhD program.

Draws on the world religions to reflect on divergent cultural, ethical, and helping systems for believers. Offers the foundations for helping by looking within a wide variety of religious traditions for support and understanding.

6342 Academic Leadership and Administration in Social Work Education
Pre-requisite(s): Admission to PhD program.

Explores research, theory, and practices of leadership in social service organizations, social work education, and communities.

6343 Program Evaluation
Pre-requisite(s): Admission to PhD program.

This course focuses on planning evaluation research for human service and educational programs and will prepare students to develop program evaluations to help agencies document their outcomes.

6351 Theory and Model Development for Social Work Practice
Pre-requisite(s): Admission to PhD program.

Students will critically examine historic, philosophical, aesthetic, and social science foundations for classic and current social work intervention theories and models.

6352 Higher Educational Teaching and Learning in Social Work
Pre-requisite(s): SWO 6351.

Focus is learning theory and educational approaches in higher education. Prepares students for teaching in higher education including understanding student learning styles, learning theory, development of syllabi, and learning units.

6353 Teaching Practicum
Pre-requisite(s): SWO 6351 and 6352.

Students work with their peers and the instructor as they navigate all aspects of planning and executing a successful course of instruction for social work students.

6380 Quantitative Research for Social Work
Pre-requisite(s): Admission to PhD program.

Focuses on quantitative research methodology as applied to research in the human services and social work. Emphasizes the epistemological basis of different research methods, forming appropriate research questions and hypotheses, conducting literature reviews, developing research designs, and selecting and applying preliminary data analysis techniques.

6381 Statistical Analysis for Social Work
Pre-requisite(s): Admission to PhD program.

An overview of statistical tests used to analyze data in social work. Emphasizes critical-thinking skills needed to evaluate others' use of statistical tests as well as to conduct one's own analyses, choose a statistical test, check that assumptions have been met, and interpret SPSS output. The course covers: correlation, Student's t-test, the ANOVA family, linear regression, and logistic regression.

6382 Qualitative Research for Social Work
Pre-requisite(s): Admission to PhD program.

Study of the philosophical underpinnings of qualitative methods. Students explore the similarities and differences between post-positivism and constructivism as they develop qualitative proposals for social work research.

6384 Proposal Seminar
Pre-requisite(s): Admission to PhD program.
Provides an introduction to the strategies, techniques, and requirements for identifying public and private funding sources, developing relationships with funders, writing proposals, and administrating grants. Students will research, develop, and write a grant proposal in this course.

6385 Measurement in Social Work
Pre-requisite(s): SWO 6381.
Content prepares students for questionnaire construction and sample selection in conjunction with measurement development.

6386 Advanced Qualitative Research
Pre-requisite(s): SWO 6382.
Focus is on the theoretical, methodological, and practical aspects of collecting, managing, and analyzing data from different qualitative traditions. Specific content is tailored to topics relevant for dissertation research.

6387 Research Practicum
Pre-requisite(s): SWO 6381 and 6382.
Students refine proposals from the quantitative and qualitative courses, submit them for review, and carry out the studies from problem formulation to submission of two manuscripts suitable for peer-reviewed journal publications.

6V00 Dissertation Proposal and Prospectus 1 to 3 sem. hrs.
Prerequisites(s): SWO 6381, SWO 6382, SWO 6583, SWO 6284, SWO 6385, SWO 6386.
Research for doctoral students studying for preliminary examinations, preparing a topic proposal, or writing a prospectus in anticipation of candidacy. The course may be repeated.

6V76 Special Topics in Social Work Practice and Research 3 to 6 sem. hrs.
Pre-requisite(s): SWO 6351, SWO 6380, SWO 6382, and SWO 6384.
Special topics in social work practice and research. May be repeated for credit, provided that the topic is not duplicated, for a maximum of 6 credit hours.

6V99 Dissertation 1 to 12 sem. hrs.
Pre-requisite(s): SWO 6583, SWO 6284, SWO 6385, and SWO 6386.
Research, data analysis, and writing and oral/written defense of an approved doctoral dissertation. At least nine hours of SWO 6V99 are required. Students may not enroll for dissertation hours until they have been officially accepted into candidacy for the Ph.D.
degree.

SOCIOLOGY (SOC)

4320 Culture, Personality and Identity (Cross-listed as ANT 4320)
See ANT 4320 for course information.

4340 Ethnicity and Aging (Cross-listed as GRT 4340 and SWO 4340)
See SWO 4340 for course information.

4393 Sociology of Aging (Cross-listed as SWO 4393 and GRT 4393)
See SWO 4393 for course information.

4395 Aging and Mental Health (Cross-listed as SWO 4395 and GRT 4395)
See SWO 4395 for course information.

5303 Social Measurement and Causal Modeling

Advanced multivariate statistical techniques; causal modeling; problems of research design, validity, and reliability. The course also involves the utilization of social science computer programs in the analysis of large-scale survey data.

5310 Social Demography

A survey of demographic change, issues, and methods as they impact our social world. Emphasis is on the social and cultural aspects of demography, as well as the impact of the changing population in society.

5312 Social Science Data Analysis (Cross-listed as PSC 5312)

Pre-requisite(s): Permission of instructor.

This is a data-intensive course designed to acquaint students with the wide variety of available data types and sources for social science research. Students learn to access, analyze, and critique these various data types. In analyzing these data, we begin with simple univariate distributional statistics and progress through bivariate regression and correlation.

5320 Seminar on the Community

Theories of community structure and dynamics, methods community analysis, and techniques for community change.

5326 Seminar in Social Psychology

Various applications of social psychological research methodologies. A class project and/or individual research projects (including literature review, data collection and analysis, and conclusions) will be completed.

5330 Evaluative Research (Cross-listed as GRT 5330)

Conceptual, methodological, and administrative aspects of program evaluation. Problems of translating research findings into policies and programs are explored.

5332 The Sociology of Health: Health Delivery Systems (Cross-listed as GRT 5332)

Special health problems of the aged person, with particular stress on related social factors and the strengths and weaknesses of existing health care systems. Alternate models for meeting the health needs of the aged are considered.

5336 The Family in Later Life (Cross-listed as SWO 5336 and GRT 5336)

See SWO 5336 for course information.

5341 Introduction to Sociology of Religion

Acceptance into the graduate program. Introduction to the main theories and empirical studies in the sociology of religion.

5342 Data Sources and Publishing in Sociology

Pre-requisite(s): SOC 5341; or consent of the instructor.

Introduction to various data sources, accompanied by training in how to publish research.

5343 Theory in the Sociology of Religion

Pre-requisite(s): SOC 5341; or consent of instructor.

In depth analysis of the major social theories of religion.

5354 Seminar in Family Sociology

Review of theoretical frameworks used in the study of family sciences. Emphasis is on classical and emerging approaches and the use of theory in research and program development.

5357 Seminar in Comparative Sociology
Pre-requisite(s): SOC 6307 and 6314.

This in-depth introduction to comparative sociology begins with a philosophical discussion of what constitutes comparative research and the criteria for social causation. Next, it examines the strengths and weaknesses of various theoretical approaches to comparative sociology. Third, it analyzes important contemporary comparative studies.

5374 Sport in the Social Context (Cross-listed as HP 5374)
See HP 5374 for course information.

5381 Advanced Research Methods
Research projects under direct supervision of a faculty member. Although specific methodological areas will vary by project, content analysis, controlled experimental design, sampling, survey analysis, computer skills, and statistical techniques, will be emphasized.

5386 Community Based Research
In this course students acquire first-hand experience in operationalizing a community-driven research project which includes the design, execution, and delivery of a final report to the community stakeholders.

5391 Advanced Sociological Theory
Pre-requisite(s): SOC 4391; or consent of instructor.

Seminar on recent developments in sociological theory. Discussions will include critical evaluation of major theoretical systems, the development and use of paradigms, and the process of theory construction.

5392 Leisure Well-Being in Later Life
Focus on how to create leisure opportunities to contribute to well-being of individuals in later years. Students will be involved in developing innovative approaches to leisure experiences for senior adults. Lab experience required.

5395 Sociopsychological Aspects of Counseling Adults (Cross-listed as GRT 5395)
Pre-requisite(s): SOC 4393 or PSY 4355 and SOC 4395; or consent of instructor.

Adult development and socialization from the perspective of counseling interventions. Opportunities to develop counseling skills with middle-age and older persons will be provided along with appropriate supervision.

5397 Methods in Aging Research (Cross-listed as GRT 5397 and SWO 5397)
See SWO 5397 for course information.

5V71 Special Topics in Sociology **1 to 6 sem. hrs.**
Pre-requisite(s): Consent of instructor.

Designed for students who wish to study with a professor in an area of sociology not covered by a formal course. Students will contract with professor regarding study and number of semester hours.

5V99 Thesis **1 to 6 sem. hrs.**

Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of SOC 5V99 are required.

6083 Proseminar in Sociology
Pre-requisite(s): Enrolled in Department of Sociology's Ph.D. Program.

This seminar aids students in professional development. Weekly speakers discuss current research, publishing, teaching, and important topics/events in the sociology of religion. The course is pass/fail and required of all students pursuing a Ph.D. with an emphasis in sociology of religion. Course may be repeated 12 times.

6301 Focus Group Research
Pre-requisite(s): Consent of instructor.

Students will apply information gathered from a review of the current literature to conduct a focus group research project under the supervision of the instructor. Students will conduct all phases of a focus group research project including design, sampling, administration and analysis.

6303 Telephone Surveys
Pre-requisite(s): Consent of instructor.

Students will acquire knowledge of telephone survey techniques and use this information to conduct a telephone survey under the supervision of the instructor. Special emphasis will be given to issues of non-contact, refusals, demographic and behavioral screens, and random digit versus add a digit techniques.

6307 Statistical Methods for Survey Research
Pre-requisite(s): Consent of instructor.

An introduction to several multivariate statistical techniques appropriate for the analysis of discrete qualitative social science survey data measured at the nominal level of measurement. Emphasis in the course is on logic regression, log linear analysis and latent class/latent structure analysis. Application to major social science data sets will be made.

6310 Mail Surveys
Pre-requisite(s): Consent of instructor.

Students will design, conduct, and analyze a mail survey in this course. Special emphasis will focus on questionnaire construction, question design, sampling techniques, cover letters and research identity, and other special problems unique to self-administered surveys.

6314 Advanced Quantitative Analysis for Sociology
Pre-requisite(s): SOC 5312 and 6307; or equivalent.

This course covers cutting-edge data analysis techniques used in the top-tier sociology journals.

6317 Community Spatial Analysis
Pre-requisite(s): SOC 5312.

Geographic information systems (GIS) and spatial modeling techniques are applied to contemporary community issues and social problems such as inequality, poverty, housing, employment, economic development, demographics, and transportation. Particular emphasis is placed on government and other sources of current data for community analysis.

6318 Sampling Techniques
Pre-requisite(s): Three hours of statistical methods.

Planning, execution, and analysis of sampling from finite populations. Simple random, stratified random, ratio, systematic, cluster, sub sampling, regression estimates, and multi-frame techniques are covered.

6320 Sociological Covariance Modeling
Pre-requisite(s): STA 5384.

Introduction to sociological applications of covariance structure analysis, including reciprocal effects and correlated equations involving personal and social factors. Recursive and nonrecursive models with and without latent variables are taught and implemented.

6325 Needs Assessment
Pre-requisite(s): Consent of instructor.

An introduction to community needs assessment in which available data (e.g. crime rates, poverty levels) and newly created data (e.g. elite surveys, program inventories) are combined to estimate various levels and types of community needs. Emphasis is on all facets of needs assessment including need definition, data selection, data creation, analysis, interpretation and presentation.

6331 The Sociology of Religiosity
Pre-requisite(s): SOC 5341 or consent of instructor; acceptance into post-Master's program.
Introduction to the measurement and definition of religiosity.

6332 The Sociology of Religious Organizations
Pre-requisite(s): SOC 5341; or consent of instructor; acceptance into post-Master's program.
Analysis of how religious organizations change, including membership dynamics, authority systems, and congregational cultures.

6333 Religion, Politics, and Society
Analysis of religious change at the societal level with an emphasis on church-state relationships.

6334 The Sociology of Religious Deviance
Pre-requisite(s): SOC 5341; or consent of instructor; acceptance into post-Master's program.
Analysis of deviant religious groups with an emphasis on defining religious deviance and explaining group membership.

6335 Religion, Morality and Social Change
Pre-requisite(s): SOC 5341; or consent of instructor; acceptance into post-Master's program.
Analysis of the role of religion in creating, sustaining and challenging the moral order of societies, and how cultural change can affect religion's moral impact.

6336 Religion, Race and Gender
Pre-requisite(s): SOC 5341; or consent of instructor; acceptance into post-Master's program.
Analysis of the interconnections of religion with race and gender with an emphasis on how race, ethnicity and gender have shaped religion and been shaped by religion.

6340 Face to Face Surveys
Pre-requisite(s): Consent of instructor.
Students will develop and conduct a face-to-face survey under the direction of the instructor. In this process, students will train interviewers in the interpersonal dynamics of interviewing which comply with current federal guidelines concerning the protection of human subjects. In addition, the issues of dialects, illiteracy, and multicultural awareness will be addressed.

6345 Sociology of Regional Processes
Pre-requisite(s): SOC 5391; or equivalent; or consent of instructor.
This course examines in detail sociological theories of regional growth and development. Students will gain a working knowledge of the core assumptions of each perspective along the structure-agency continuum. In addition, students will do significant readings of empirical research in this field and conduct an original empirical study.

6350 Seminar in Human Resource Management (Cross-listed as MGT 5336)
See MGT 5336 for course information. Fee: $100

6351 Seminar in Population Health
An examination of individual differences in health and well-being in the United States. Focuses on (1) health disparities by socioeconomic status, gender, race/ethnicity, and age; and (2) biological and sociological theories of illness and disease. Risk factors for poor health and coping resources that enhance mental and physical well-being are identified.

6357 Health Inequalities in America
Pre-requisite(s): STA 5384.
A seminar focused on critiquing a wide selection of recent scientific articles on health and society. Chosen articles will deal with social inequalities in health observed in the United States and other advanced nations.

6360 Demographic Techniques
Pre-requisite(s): Consent of instructor.

An introduction to the various models of demographic projection and modeling including linear regression, ratio techniques and cohort component. Emphasis is on mastery of base data acquisition and model construction to determine demographic trends and predict population levels, crime rates and disease patterns.

6384 Religion and Family Life

Focuses on the ways religion influences family life in the context of significant family change in the United States. Specific topics include how religious institutions have responded to changes in family life, sexual behavior, marriage and fertility timing, cohabitation, gender roles, parenting, marital quality, and divorce. Also examines how family life influences religious commitment.

6390 Summer Writing Practicum in Sociology

Students spend the summer working with a faculty supervisor to improve their scholarly writing in the areas of framing a testable hypothesis, operationalizing and measuring concepts, and writing to the broader discipline. A publishable research article is the goal of the course.

6391 Grant Writing and Proposal Development

Provides intensive exposure to the technical and political aspects of grant writing and proposal development. Emphasis is placed on defining proposal ideas to match funding sources, researching private foundations, corporations and government funding agencies, and developing successful proposals. Participants will prepare a grant proposal during the course, which will be submitted to an appropriate private or public agency.

6V37 Special Topics in the Sociology of Religion 1 to 3 sem. hrs.
Pre-requisite(s): Acceptance into post-Master's program. Consent of instructor.

Analysis of special topics in the sociology of religion. The course may be repeated once when the content varies.

6V71 Special Topics 1 to 3 sem. hrs.
Pre-requisite(s): Consent of instructor.

A social research project in selected areas of sociology. The project must be approved by the members of the graduate faculty supervising the student. A final journal-quality paper summarizing the research effort and findings must be submitted to the instructor. This course may be repeated up to six times for credit up to a total of eighteen semester hours provided the research area is different.

6V97 Seminar in Teaching 3 to 6 sem. hrs.

Supervised teaching experience. The student will teach SOC 1305 under the supervision of a graduate faculty member. Lesson plans, syllabi, handouts, lecture examples, etc., will be discussed before and after classes. Videotaping of selected classes will provide media for critique and growth.

6V99 Dissertation 1 to 6 sem. hrs.

Supervised research for the doctoral dissertation. A total of at least twelve semester hours is required for completion of the dissertation.

SPANISH (SPA)

4303 Spanish Phonology and Morphophonology
Pre-requisite(s): SPA 3309.

The sounds of Spanish and the formation of its words, and the relationship between these two, morphophonology. It includes pronunciation and transcription of Spanish.

4304 Spanish Syntax
Pre-requisite(s): SPA 3309.
Spanish word order and sentence formation, phrasal structures and constructions that are different from English.

4305 Spanish Semantics and Pragmatics
Pre-requisite(s): SPA 3309.
The study of the meaning of words, sentences, and discourse and elements of conversation including context, usage and appropriateness.

4321 Spanish for Medical Professions II
Pre-requisite(s): SPA 2321, 3302 and consent of instructor.
In-depth experience with Spanish in medical contexts, including a community service-learning component, with emphasis on oral and aural proficiency.

4330 Advanced Grammar, Composition and Conversation
Pre-requisite(s): SPA 3302; and consent of instructor.
A review of grammar applied to the writing of compositions and conversational practice. Emphasis on writing style, practical and cultural topics, dialogues, and interviews.

4340 Professional and Literary Translation
Pre-requisite(s): SPA 4330 or equivalent or consent of instructor.
The theory and practice of translation, including poetry, short stories, and technical documents.

4362 Spanish Drama of the Golden Age
Pre-requisite(s): SPA 3305 or consent of division director.
Representative playwrights of seventeenth-century Spain; extensive study of selected works. Lectures, reports, class discussion, and term papers.

4363 Cervantes
Pre-requisite(s): SPA 3305 or consent of division director.
Study of the major works of Cervantes with emphasis on Don Quixote, the cultural milieu of sixteenth and seventeenth century Spain, and the views of present-day literary critics. Lectures, class discussions, oral reports, and term papers.

4364 Nineteenth Century Spanish Literature
Pre-requisite(s): SPA 3305 or consent of division director.
Representative plays, poems, essays, and novels from nineteenth century Spanish literature, emphasizing in-depth analysis of texts.

4366 Twentieth Century Spanish Literature
Pre-requisite(s): SPA 3305.
Study of representative poets, playwrights, and novelists of this century. Lectures, student reports, class discussions, and term papers.

4372 Latin American Short Story
Pre-requisite(s): SPA 3305.
An in-depth study of outstanding eighteenth, nineteenth and twentieth century Latin American short stories in light of current practice and trends in literary analysis.

4375 Contemporary Spanish American Theater
Pre-requisite(s): SPA 3305 or consent of division director.
Major trends of Spanish American theater as reflected in the works of major contemporary playwrights. Readings, lectures, and reports.

4376 The Spanish-American Novel
Pre-requisite(s): SPA 4370, 4374 or consent of division director.

A study of the origins and development of the Spanish-American novel (from 1816 to 1915). A study of the main literary movements as reflected or found in the novel, in an approved paper or project.

4378 Latin American Poetry
Pre-requisite(s): SPA 3305.

An overview of poetic trends in Latin American literature from pre-Hispanic times to the twentieth century.

4388 Topics in Hispanic Language and Literature
Pre-requisite(s): SPA 3305; or consent of division director.

A study of an author, work, period, genre, or current Hispanic literature or of an aspect of the Spanish language. Topic changes from semester to semester. May be repeated for credit if topic is different.

5199 Non-Thesis Degree Completion

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5302 Literary Theory, Research and Writing
Pre-requisite(s): Graduate standing.

Theories and models of literary criticism, as well as library resources and their use applied to the analysis of texts in Spanish to produce scholarly papers.

5310 Medieval Spanish Literature
Pre-requisite(s): SPA 5351.

A study of Spanish literature from the end of the first millennium through the consolidation of the various Spanish kingdoms under Ferdinand and Isabella.

5315 Spanish Literature of the 16th and 17th Century
Pre-requisite(s): SPA 5302; or consent of graduate adviser.

Representative works of poetry, prose narrative, and drama from Boscan to Calderon. Close reading of texts with special attention to major historical, artistic, and literary trends of the sixteenth and seventeenth centuries.

5324 Spanish Poetry and Drama: 19th and 20th Centuries
Pre-requisite(s): SPA 5302; or consent of graduate adviser.

Major historical and literary movements and major historical, literary, and artistic figures of nineteenth-and twentieth-century Spain. Analysis of texts through close reading.

5326 Nineteenth and Twentieth Century Spanish Narrative

This course is an introduction to the major movements and writers of prose fiction in Spain in the last two hundred years.

5331 Latin American Colonial Literature

This course is designed to give an overview of literary trends in Hispanic-American literature from pre-Hispanic times to the eighteenth century.

5334 Latin American Romanticism to Modernism

This course is designed as a survey of the Latin American novel, short story, poetry and theatre from the nineteenth century to the first half of the twentieth century.

5335 Latin American Literary Trends: Early to Mid-20th Century
Pre-requisite(s): Graduate standing.
This course is designed as a survey of the Latin American novel, short-story, poetry and theatre of the first half of twentieth century.

5337 Latin American Literary Trends: Mid Twentieth Century to Present
This course is designed as a survey of the Latin American novel, short-story, poetry, and the theatre from the second half of the twentieth century to the present.

5350 Introduction to Romance Linguistics
An introductory course for the field of linguistics and its components: phonology, morphology, syntax, semantics, and language change.

5351 History of the Spanish Language
Historical developments of the language from Latin to modern Spanish.

5356 The Acquisition of Spanish as a First and Second Language
Pre-requisite(s): SPA 5350; or consent of instructor.
An examination of studies on the acquisition of Spanish as a first and second language; language acquisition in both formal and informal environments is studied.

5357 Spanish Syntax and Semantics
The course intends to examine the grammatical structures of Spanish and English for students who are intermediate to advanced learners of Spanish.

5358 Phonology and Morphology
The course intends to examine the phonological and morphological structures of Spanish as they relate to English.

5359 Seminar in Language Acquisition and Applied Linguistics
Theory, review of literature, and practice in language acquisition and applied linguistics for graduate students who will be teaching Spanish as a second language.

5370 Spanish for Graduate Students I
Reading of intermediate-level Spanish texts. No previous language experience required. Limited to graduate students or to undergraduates by petition. Does not count toward foreign language requirement for undergraduate students.

5371 Spanish for Graduate Students II
Pre-requisite(s): SPA 5370; or consent of instructor.
Continuation of SPA 5370. Reading of intermediate-level Spanish texts. No previous language experience required. Limited to graduate students or to undergraduates by petition. Does not count toward foreign language requirement for undergraduate students.

5388 Topics in Hispanic Language and Literature
Pre-requisite(s): Graduate standing.
A study of an author, work, period, genre, or trend of Hispanic literature or of an aspect of the Spanish language. Topic changes from semester to semester. May be repeated once for credit if topic is different.

5V90 Independent Study **1 to 3 sem. hrs.**
Pre-requisite(s): Consent of division director.

5V99 Thesis **3 to 6 sem. hrs.**
Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of SPA 5V99 are required.

SPORT MANAGEMENT (SPM)

5327 Financial Management in Sport
Income sources available to sport organizations such as tax support, municipal and corporate bonds, ticket sales, concessions, fund raising, sponsorship, licensing, and PSLs.

5328 Athletic Fundraising and Development
Introduces the fundamental principles and best practice in sports fundraising. Focuses on the particular challenges of fundraising and development in intercollegiate and interscholastic athletics, youth sport organizations, and non-profit sport organizations.

5336 Sport Marketing
A study of sport marketing plans utilizing the concepts of product, price, public relations, promotion, sales and advertising.

5338 Public Relations in Sport
Aspects of external and internal communication in sport pertaining to community, customer, employee, and media relations.

5341 NCAA Policies and Procedures
Provides an in-depth and hands-on approach in understanding, applying, and conveying NCAA regulations. Designed to emphasize career preparation for leadership in college athletics by developing the necessary philosophical perspective and practical knowledge for compliance with NCAA standards.

5372 Legal Issues in Sport
This course examines the legal aspects of sport. Areas of study include, but are not limited to, administrative rules and regulations, constitutional law, legislative enactments, negligence, and case law related to professional, intercollegiate, interscholastic and recreational sport.

5373 Sport Management
The general objectives of this course are to understand the role of management in sport programs, to develop a philosophy of management, to understand various management theories, and to acquire knowledge and skills to make decisions and solve problems in sport management. These general objectives will be applied to such specific areas as human resource management, marketing, legal liability, facility management, finance, economics, and ethics.

5374 Sport in the Social Context (Cross-listed as SOC 5374)
A course that investigates sport function from an economic, political, sociological and educational perspective and studies the interaction of various social influences such as the mass media, race, gender, and group behavior on sport.

5375 Governance in Sport
Various governing agencies in sport emphasizing investigation of the legal ramifications, organizational structure, authority, membership, and influence of sport governing bodies.

5376 Facility and Event Management
Practical background in all facets of managing a sports event and facility. The content includes organizational structure and staffing, financial management, risk management, operations and maintenance, crowd control and security, marketing an event, and measuring the economic impact of an event.

5398 Contemporary Ethical Issues in Sport
A research seminar focusing on ethical problems in the contemporary sport industry and the theoretical models available for analyzing these problems.

5V90 Internship in Sports Management **1 to 6 sem. hrs.**
Prerequisite: Consent of instructor.
Provides full-time supervised experience in a sport organization or agency for job-based professional training including a project jointly developed by the sponsoring organization and faculty. Students will complete 400 clock hours.

5V94 Practicum in Sports Management **1 to 3 sem. hrs.**
Prerequisite: Consent of instructor
Provides part-time supervised experience in a sport organization or agency for job-based professional training including a project jointly developed by the sponsoring organization and faculty. Students will complete 200 clock hours.

STATISTICS (STA)

4362 Applied Time Series Analysis
Pre-requisite(s): STA 3386.
Statistical methods of analyzing time series. Model identification, estimation, forecasting, and spectral analysis will be discussed.Applications in a variety of areas including economics and environmental science will be considered.

4370 Sampling Techniques
Pre-requisite(s): Three hours of statistical methods.
Planning, execution, and analysis of sampling from finite populations. Simple random, stratified random, ratio, systematic, cluster, sub sampling, regression estimates, and multi-frame techniques are covered.

4371 Data Management and Mining
Pre-requisite(s): STA 3381.
Terminology, techniques, and management of Data Mining for biostatisticians.

4372 Introduction to Biostatistics
Pre-requisite(s): STA 2381 or STA 3381 or consent of the instructor.
Data Analysis for biostatisticians in the biomedical and pharmaceutical fields.

4373 Computational Methods in Statistics
Pre-requisite(s): STA 2381 or STA 3381 or consent of the instructor.
Computational methods using statistical packages and programming.

4374 Statistical Process Control
Pre-requisite(s): STA 3381 or equivalent.
Development of statistical concepts and theory underlying procedures used in statistical process control applications and reliability.

4382 Intermediate Statistical Methods
Pre-requisite(s): A minimum grade of C in either STA 2381 or STA 3381; or consent of instructor.
Development and application of two-sample inference, analysis of variance and multiple regression. Assumptions, diagnostics and remedial measures are emphasized. Computer statistics packages are utilized.

4385 Mathematical Statistics I
Pre-requisite(s): MTH 2321 with minimum grade of C.
Introductions to the fundamentals of probability theory, random variables and their distributions, expectations, transformations of random variables, moment generating functions, special discrete and continuous distributions, multivariate distributions, order statistics, and sampling distributions.

4386 Mathematical Statistics II
Pre-requisite(s): STA 4385 with minimum grade of C.

Theory of statistical estimation and hypothesis testing. Topics include point and interval estimation, properties of estimators, properties of test of hypotheses including most powerful and likelihood ratios tests, and decision theory including Bayes and minimax criteria.

5180 Statistical Packages
Pre-requisite(s): STA 3381 or equivalent.

Emphasis on use of the computer to perform statistical data analysis through use of integrated statistical packages. Instruction includes use of SAS and Splus.

5300 Statistical Methods

Introduction to descriptive and inferential statistics. Topics may be selected from the following: descriptive statistics and graphs, probability, regression, correlation, tests of hypotheses, interval estimation, measurement, reliability, experimental design, analysis of variance, nonparametric methods, and multivariate methods.

5301 Introduction to Experimental Design
Pre-requisite(s): Graduate standing.

Simple and complex analysis of variance and analysis of covariance designs. The general linear model approach, including full-rank and less than full-rank models, will be emphasized.

5305 Advanced Experimental Design
Pre-requisite(s): STA 5381 or consent of instructor.

The course examines a variety of complex experimental designs that are available to researchers including split-plot factorial designs, confounded factorial designs, fractional factorial designs, incomplete block designs, and analysis of covariance. The designs are examined within the framework of the general linear model. Extensive use is made of computer software.

5351 Introduction to Theory of Statistics
Pre-requisite(s): MTH 2321 or equivalent or consent of instructor.

Introduction to mathematics of statistics. Fundamentals of probability theory, convergence concepts, sampling distributions, and matrix algebra.

5352 Theory of Statistics I
Corequisite(s): STA 5380.
Pre-requisite(s): MTH 2321 or STA 5351 or consent of instructor.

Theory of random variables, distribution and density functions, statistical estimation, and hypothesis testing. Topics include probability, probability distributions, expectation, point and interval estimation, and sufficiency.

5353 Theory of Statistics III
Pre-requisite(s): STA 5352.

Topics include sampling distributions, likelihood and sufficiency principles, point and interval estimation, loss functions, Bayesian analysis, asymptotic convergence, and test of hypothesis.

5362 Time Series Analysis
Pre-requisite(s): STA 5352.

Statistical methods of analyzing time series. Topics include autocorrelation function and spectrum, stationary and non-stationary time series, linear filtering, trend elimination, forecasting, general models and auto regressive integrated moving average models with applications in economics and engineering.

5364 Survival and Reliability Theory
Pre-requisite(s): STA 5352.
Basic concepts of lifetime distributions. Topics include types of censoring, inference procedures for exponential, Weibull, extreme value distributions, parametric and nonparametric estimation of survival function and accelerated life testing.

5365 Design of Experiments and Clinical Trials
Pre-requisite(s): Graduate standing.
Traditional designs of experiments are presented within the framework of the general linear model. Also included are the latest designs and analyses for clinical trials and longitudinal studies.

5367 Managerial Epidemiology (Cross-listed as HPA 5367)
See HPA 5367 for course information.

5377 Spatial Statistics
Pre-requisite(s): STA 5353; or consent of instructor.
Exploratory spatial data analysis using both graphical and quantitative descriptions of spatial data including the empirical variogram. Topics include several theoretical isotropic and anisotropic variogram models and various methods for fitting variogram models such as maximum likelihood, restricted maximum likelihood, and weighted least squares. Techniques for prediction of spatial processes will include simple, ordinary, universal and Bayesian kriging. Spatial sampling procedures, lattice data, and spatial point processes will also be considered. Existing software and case studies involving data from the environment, geological and social sciences will be discussed.

5380 Statistical Methods for Research
Introduction to the more common statistical concepts and methods. Interval estimation, tests of hypotheses, non-parametric methods, linear regression and correlation, categorical data analysis, design of experiments and analysis of variance, and the use of computer packages.

5381 Regression Analysis
Pre-requisite(s): STA 3381 and MTH 2311.
Statistical methods and linear algebra. Theory and applications of simple and multiple regression models. Topics include review of statistical theory inference in regression, model selection, residual analysis, general linear regression model, multicollinearity, partial correlation coefficients, logistic regression, and other appropriate topics.

5383 Introduction to Multivariate Analysis
Pre-requisite(s): STA 5381 or equivalent.
Statistical models and procedures for describing and analyzing random vector response data. Supporting theoretical topics include matrix algebra, vector geometry, the multivariate normal distribution and inference on multivariate parameters. Various procedures are used to analyze multivariate data sets.

5384 Multivariate Statistical Methods
Discriminant analysis, canonical correlation analysis, and multivariate analysis of variance.

5387 Stochastic Processes
Pre-requisite(s): STA 5353.
The study of probability theory as motivated by applications from a variety of subject matters. Topics include: Markov chains, branching processes, Poisson processes, continuous time Markov chains with applications to queuing systems, and renewal theory.

5388 Seminar in Statistics
Pre-requisite(s): Consent of instructor.
Selected topics in Statistics. May be repeated once with change of topic.

5V85 Practice in Statistics **1 to 3 sem. hrs.**

Consulting, research, and teaching in statistics.

5V95 Topics in Statistics **1 to 3 sem. hrs.**

Pre-requisite(s): Consent of instructor.

Selected topics in statistics. May involve texts, current literature, or an applied data model analysis. This course may be repeated up to four times with change of topic.

5V99 Thesis **1 to 3 sem. hrs.**

Supervised research for the master's thesis. A maximum of three semester hours to count for the degree.

6351 Large Sample Theory

Pre-requisite(s): STA 5353.

Large sample theory, including convergence concepts, laws of large numbers, central limit theorems, and asymptotic concepts in inference.

6352 Bayesian Theory

Pre-requisite(s): STA 5353 or equivalent.

Bayesian statistical inference, including foundations, decision theory, prior construction, Bayesian point and interval estimation, and other inference topics. Comparisons between Bayesian and non-Bayesian methods are emphasized throughout.

6353 Semiparametric Regression Models

Pre-requisite(s): STA 5353.

Semiparametric inference, with an emphasis on regression models applicable to a wider class of problems than can be addressed with parametric regression models. Topics include scatterplot smoothing, mixed models, additive models, interaction models, and generalized regression. Models are implemented using various statistical computing packages.

6360 Bayesian Methods for Data Analysis

Pre-requisite(s): STA 5353 or equivalent.

Bayesian methods for data analysis. Includes an overview of the Bayesian approach to statistical inference, performance of Bayesian procedures, Bayesian computational issues, model criticism, and model selection. Case studies from a variety of fields are incorporated into the study. Implementation of models using Markov chain Monte Carlo methods is emphasized.

6366 Statistical Bioinformatics

Pre-requisite(s): STA 5353 and 5383; or consent of instructor.

Critical evaluation of current statistical methodology used for the analysis of genomic and proteomic data.

6375 Computational Statistics

Topics in statistical simulation and computation including pseudo-random variate generation, optimization, Monte Carlo simulation, Bootstrap and Jackknife methods.

6382 Theory of Linear Models

Pre-requisite(s): STA 5353 and 5381; and knowledge of matrix theory.

Theory of general linear models including regression models, experimental design models, and variance component models. Least squares estimation. Gauss-Markov theorem and less than full rank hypotheses.

6383 Advanced Multivariate Analysis

Pre-requisite(s): STA 5383.

Multivariate normal and related distributions. Topics include generalizations of classical test statistics including Wilk's Lambda and Hotelling's T2, discriminant analysis, canonical variate analysis, and principal component analysis.

6384 Analysis of Categorical Responses
Pre-requisite(s): STA 5381 or equivalent.
Theory of generalized linear models including logistic, probit, and log linear models with special application to categorical and ordinal categorical data analysis.

6V99 Dissertation **1 to 6 sem. hrs.**
Supervised research for the doctoral dissertation. maximum of nine semester hours will count for the degree. A student may register for one to six semester hours in one semester.

SYRIAC (SYR)

4304 Syriac (Cross-listed as REL 4304)
See REL 4304 for course information.

TEACHER EDUCATION (TED)

4325 Teaching Science in the Secondary School
A survey of contemporary secondary school science programs (all sciences) emphasizing their philosophies, designs, and unique methods and strategies for teaching. Fee: $50

4341 Social Studies Curriculum
Pre-requisite(s): TED 3630 or 3640.
Organization, content, research practices, and technology in the social studies curriculum in middle and secondary grades. Includes a discussion of current issues and standards in social studies teaching.

4348 Secondary Mathematics Curriculum
Methods and activities used to actively engage secondary school students in the construction of mathematical ideas will be investigated along with an analysis of the secondary mathematics curriculum. Candidates will reflect on what it means to teach mathematics and explore factors that influence teaching. The NCTM Standards will be emphasized. Includes laboratory experiences in teaching mathematics at the secondary school level. Fee: $50

4349 Critical Issues in Mathematics Education
Pre-requisite(s): TED 2330 or 2340.
Teacher candidates will investigate critical issues in the nature of knowledge and inquiry in middle grade and secondary school mathematics. Candidates will explore current issues related to teaching practices and experiences. The NCTM Standards along with relevant research will provide a foundation.

4355 Teaching Geography in the Social Studies
Pre-requisite(s): Upper-level standing or consent of instructor.
The focus of this course is to provide EC-4, 4-8, and 8-12 certificate level teacher education students an in-depth exploration of the curriculum and pedagogy of geography education in the social studies. Special emphasis will be given to developing curriculum and methodologies consistent with the five themes of the National Geography Standards.

THEATER ARTS (THEA)

4321 History of Costume
Pre-requisite(s): Upper-level standing or consent of instructor.
A study of dress from Egyptian times to the twentieth century.

4322 History of Decor in the Western World
Pre-requisite(s): Upper-level standing.
Major historical movements and periods in architecture and decorative arts in the West, with special attention to how these trends relate to theatrical design.

4326 Advanced Costume Design
Pre-requisite(s): THEA 3326.
Advanced principles and practices of costume design, with an emphasis on the design team/director collaboration. Fee: $75

4335 Creative Dramatics
Pre-requisite(s): Consent of instructor.
Education, theory, and philosophy that will cultivate the techniques of creative dramatics and develop the skills needed for human interaction in dramatic play. Lab required.

4365 Advanced Directing I
Pre-requisite(s): THEA 3324 and 3325.
Directing techniques for departures from realism, with an emphasis on postmodern theatre, musical theatre, and verse drama. Workshop required. Fee: $150

4366 Advanced Directing II
Pre-requisite(s): THEA 4365.
Continuation of THEA 4365. Workshop required. Fee: $150

4376 Theater History III
Pre-requisite(s): THEA 2374 and 2375; and upper-level standing.
Historical investigation of theatre practice, performance, and dramatic literature from the early twentieth century to the present.

4377 The Theatre and Christianity
Pre-requisite(s): Upper-level standing or consent of instructor.
An exploration of biblical perspectives concerning creativity and the arts with a special emphasis on theatre and the performing arts.

4378 Dramaturgy: Theory and Practice
Pre-requisite(s): THEA 4376 and consent of instructor.
Investigation of the functions and methods of the dramaturg such as choosing a season, audience enrichment, new play development, researching production history, and understanding dramatic structure and theory.

4379 Advanced Studies in Contemporary Theatre and Drama
Pre-requisite(s): THEA 2374, 2375, and 4378.
Topics related to leading contemporary playwrights, current issues of dramatic style, and emerging trends in theatrical practice. May be repeated once for credit with different content.

4380 Performing Arts Management
Pre-requisite(s): Upper-level standing.
Organizational structure, fundraising techniques, and board development for non-profit professional and commercial performing arts organizations. Includes contracting with professional unions, budgeting, and season planning. Technical crew lab included.

4390 Advanced Stage Management
Pre-requisite(s): THEA 2390.
Role and responsibilities of the stage manager using the Regional Theatre or LORT Stage Manager model. Explores budgeting, seasonal planning and responsibilities in touring and non-theatrical situations. Fee: $75

4398 Technical Direction for Theater
Pre-requisite(s): THEA 1312, 1316, 1383, and 2371.
Four basic areas of technical direction: creating technical drawings, estimating a set, choosing materials used in the theater, and scheduling the building of sets for the theater. This course may be repeated once with a different topic. Fee: $75

5101 Introduction to Graduate Theatre Studies
A two-week introductory intensive designed to prepare students for graduate level theatre research, analysis, and teaching.

5199 Non-Thesis Degree Completion
To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

5301 Contemporary Directing Styles
Analysis of contemporary directing styles. Fee: $150

5304 History and Theory of Directing
An historical and theoretical study of the development of the director, with emphasis on the late nineteenth century to the present.

5306 Play Analysis for Directors
Advanced study of several methodologies for analyzing dramatic structure and composition; approaches to the direct application of analysis to play production.

5307 Contemporary Performance Theory
Development of twentieth-century performance theory.

5308 Dramatic Theory and Criticism
Dramatic theory and criticism from Aristotle to the twentieth century.

5310 Seminar in Classical Drama
An historical and theoretical study of selected classical masterworks in performance.

5311 Directing Modern Plays
A study of theories and techniques used in directing selected European and American masterworks with emphasis on script analysis and interpretation, staging practices, and particular concept and style. Fee: $75

5312 Directing Classical Plays
Directing theories and concepts of tragedy and comedy from the Greeks through the nineteenth century. Fee: $75

5313 Production Design
Research, analysis, and practical experience in designing scenery, lighting, sound, costumes, and makeup for a realized production. Fee: $75

5315 Seminar in Modern Drama
This seminar course offers advanced study of modern American and British and European drama specifically for graduate students of theatre.

5335 Director's Workshop
Practical experience in all areas of theatre production for the public presentation of a full-length play. Fee: $75

5351 Theatre Scholarship and Research Methods
Seminar study of practical issues in advanced theatre scholarship, research methods, application of theory, academic writing, and scholarly publication.

5370 Seminar in Dramatic Production
Research and critical analysis of plays and their productions.

5372 Independent Study
Guided study of pre-approved topic(s).

5373 Dramaturgy
Application of directorial script analysis and dramaturgical tools in production planning, development of the production script, and rehearsal.

5374 Collaborative Theater Process
An investigation through research and discussion of the elements of design, the relationship between the director and designers, and the process of unifying various elements of theatre production. Students will submit proposals for designs of both classic and modern plays and justify their ideas through literary and pictorial research.

5375 Actor-Director Collaboration
Through scene work and acting exercises, directors explore the theories, common vocabularies, and basic skills and techniques needed to work with actors from differing backgrounds. Attention will also be given to auditioning, casting and rehearsal strategies as well as the major directorial performance styles of the twentieth century.

5376 Playwriting
A study of the art and craft of playwriting, emphasizing analytic approaches to writing, developing a personal voice, narrative, characters, and point of view. Workshop required.

5398 Thesis Production and Research
Master of Fine Arts students only. Research, design, and direction of the thesis production.

5V99 Thesis **1 to 9 sem. hrs.**
Research, data analysis, writing, and oral defense of an approved master's thesis. At least six hours of THEA 5V99 are required.

UGARITIC (UGA)

5306 Ugaritic Grammar and Lexicography (Cross-listed as REL 5325).
Pre-requisite(s): HEB 2301; or equivalent.
Fundamentals of the language of Ugarit with special attention to the relationship of Ugaritic with Hebrew grammar and lexicography.

AFFILIATED PROGRAMS

BUSINESS (MBUS)

5220 Organizational Ethics

This course will review major ethical theories, principles, decision-making methods, and the relationship between ethics and leadership. Clinical ethics topics will be considered from an organizational perspective, and topics with a more definitive business focus will be addressed.

BUSINESS LAW (MBL)

5310 Selected Topics in Business Law

This course builds on the material from Health Care Jurisprudence and from Health Care Contracting and Negotiations. Topics reviewed may include sales, negotiable instruments, the corporation qua corporation, debtor-creditor relations, bankruptcy, real property, and the governmental regulation of business. Case studies will be developed by students and analyzed.

CLINICAL ORTHOPAEDICS (MCO)

PHYSICIAN ASSISTANT. STUDIES - MIL (MCO)

6140 Articular Injuries of the Knee

This course summarizes the current diagnosis, treatment (conservative and surgical) and expected outcomes of articular cartilaginous injuries of the knee. This course will provide the DScPAS-CO resident the knowledge needed to diagnose and guide a patient through the various current treatment options.

6141 Anterior Knee Pain and Patello-femoral Joint Instability

This course summarizes the possible causes, clinical presentations, and treatment options for anterior knee pain. This will provide the DScPAS-CO resident with the knowledge needed to properly diagnose and treat this common, yet significant problem.

6142 Genetics I and II, Developmental Dysplasia of the Hip (DDH), Legg-Calve-Perthes Disease and Slipped Capital Femoral Epiphysis (SCFE)

This course provides the basic knowledge and skills that the DScPAS-CO resident will require throughout training and in clinic practice regarding genetic disorders and musculoskeletal conditions.

6143 Orthopaedic Surgery in the Immunocompromised Host

This course brings to light the special requirements and potential complications of orthopaedic surgery in the immunocompromised patient. Being familiar with techniques used to decrease morbidity and mortality in this special subset of the population undergoing orthopaedic surgery is essential for the DScPAS-CO resident in today's society.

6144 Osteoarthritis

This course is an overview of osteoarthritis, including the epidemiology, pathogenesis, clinical features, evaluation, and management. Clinically, osteoarthritis is a very common diagnosis, and being knowledgeable about this disease entity is essential for the DScPAS-CO resident.

6145 Benign Bone Tumors

This course addresses the incidence, clinical and radiographic features, and management of benign bone tumors. Benign bone tumors are four to five times more common than malignant bone tumors, making familiarity with benign bone tumors essential for the DScPAS-CO resident.

6146 Prioritization and Management of the Polytrauma Patient

This course discusses the prioritization and management of the polytrauma patient. The DScPAS-CO resident will become familiar with and utilize established trauma management protocols and learn how to integrate into a coordinated team of traumatologists.

6147 Ligamentous Injuries of the Foot and Ankle

This course discusses common injuries of the foot and ankle. The DScPAS-CO resident will become familiar with and be able to differentiate surgical versus non-surgical ankle injuries and use well-established treatment options for non-surgical injuries.

6148 Knee Ligament and Meniscal Injuries: Epidemiology, Mechanism, Diagnosis and Natural History

This course will give the DScPAS-CO resident knowledge necessary to identify, diagnose and determine the appropriate management course for knee ligamentous and meniscal injuries.

6150 Diagnosis and Management of Musculoskeletal Infection

This course reviews the microbiology, history, physical exam findings, ancillary studies and management options for common musculoskeletal infections.

6151 Overview of Arthritis

This course is an overview of arthritis. It touches on the impact of arthritis in our society and reviews some unique considerations in the care of the orthopaedic patient with arthritis.

6152 Pathophysiology of Bone Tumors

This course is an overview of the pathophysiology of bone tumors. Understanding the pathophysiology of bone tumors will help the DScPAS-CO resident when evaluating a patient with an osseous lesion with regards to the expected natural course and the presenting symptoms.

6153 Orthopaedic Sports Medicine

This course provides the basic knowledge and skills that the DScPAS-CO resident will require throughout training and in clinic practice regarding orthopaedic sports medicine.

6154 Spinal Pain

This course covers the role of the spine in pathologic pain processes. Spinal pain is frequently non-specific and provides little insight into its source. The spine may be affected by a myriad of pathological disorders--traumatic, neoplastic, inflammatory, metabolic, or degenerative.

6201 Biomechanics of Fracture Fixation and Classification of Fractures

This course will provide the DScPAS-CO resident with a basic introduction to the classification of fractures as well as the biomechanics of fractures, the biomechanics of implants used to fix fractures, and problems associated with implants and specific fracture patterns.

6202 The Multiply Injured Patient with Musculoskeletal Injuries and Anesthetic Care of the Trauma Patient

This course will provide the orthopaedic PA resident familiarity with trauma team organization and responsibilities, ATLS guidelines, anesthetic care, DVT prophylaxis and orthopaedic management of the multiply injured patient.

6203 Non-Operative Fracture Treatment

This course will provide the DScPAS-CO resident familiarity with the history of the evolution of fracture treatment and the effect of today's treatments on the natural skeletal repair process. The resident will also gain familiarity with identifying fractures of the upper and lower extremities, which are commonly treated non-operatively with and without manipulative reduction.

6204 Principles of Internal and External Fixation

This course discusses the principles of internal and external fixation. Being familiar with the principles of internal and external fixation is essential for the DScPAS-CO resident while developing a treatment plan, assisting during operative procedures, and providing post-operative care and rehabilitation.

6205 Musculoskeletal Healing, Vascular Injuries and Compartment Syndromes

This course provides the basic knowledge and skills that the orthopaedic PA resident will require throughout training and in clinic practice regarding bone and soft tissue healing, open fractures, vascular injuries, and compartment syndrome.

6206 Penetrating Trauma/Bone and Soft Tissue Reconstruction

This course focuses on penetrating trauma caused by ballistic projectiles. Emphasis is on ballistic behavior and the resulting orthopaedic injuries. Initial management principles are explained with differentiation between the management of upper and lower extremity injuries.

6207 War Wounds, Limb Salvage Traumatic Amputations, and Periprosthetic Fractures

This course covers explosive devices such as mortars, bombs, land mines and improvised explosive devices causing multiple torso, abdominal and extremity trauma. Initial management should focus on saving life and limb but also wound debridement and functional limb salvage for long-term functional and prosthesis use and the classification of common causes of pathologic and periprosthetic fractures.

6208 Complications of Injury to the Musculoskeletal System

This course will give the OPA resident knowledge about the incidence, pathophysiology, examination, diagnostic testing and imaging, classification, and management of select common complications of traumatic, nontraumatic, and surgical (iatrogenic) injury to the musculoskeletal system.

6209 Fractures and Dislocations of the Hand and Wrist

This course will provide the DScPAS-CO resident with a base knowledge of fractures and dislocations in the hand and wrist with insight into the complexities involved with even the seemingly insignificant appearing fractures.

6210 Fractures of the Radial and Ulnar Shafts and Isolated Distal Radius Fractures

This course will provide the orthopaedic PA resident with the information and knowledge needed to diagnose, describe, reduce, and recommend for surgical fixation one of the most common fractures in all age groups.

6211 Fractures and Dislocations of the Elbow and Distal Humerus

This course provides the basic knowledge and skills that the orthopaedic PA resident will require throughout training and in clinic practice regarding elbow dislocations and fractures about the elbow and distal humerus.

6212 Subluxations and Dislocations about the Glenohumeral, Acromioclavicular, and Sternoclavicular Joints

This course will give the DScPAS-CO resident knowledge about the general anatomy, biomechanical pathology, examination, diagnostic imaging, and classification of select subluxations and dislocations of the glenohumeral joint and surrounding musculoskeletal tissues of the shoulder girdle.

6213 Fractures of the Shaft and Proximal Humerus

This course discusses the evaluation and treatment of humeral shaft and proximal humerus fractures. Being familiar with the history, physical exam, radiological findings and treatment of humerus fractures is an essential skill for the orthopaedic PA.

6214 Fractures of the Clavicle and Scapula

This course covers scapular fractures which can occur after high energy mechanisms and have a significant (35% to 98%) amount of associated injuries. Fractures of the scapula occur infrequently at 0.4% to 1% of all fractures. Not until recently has it been determined that clavicle fractures are anything but routine and that some problematic types of clavicle fractures and non-unions need more in-depth treatment.

6215 Fractures of the Pelvic Ring and Acetabulum

This course will provide the DScPAS-CO resident with the basic information necessary to diagnose, describe, reduce, and treat fractures of the pelvis and acetabulum.

6216 Femoral Head, Neck, and Intertrochanteric Fractures and Hip Dislocations

This course will give the DScPAS-CO resident knowledge of the general anatomy, biomechanical pathology, signs and symptoms, examination, diagnostic imaging, and classification of hip dislocations and fractures of the head, neck and intertrochanteric regions of the femur.

6217 Subtrochanteric Fractures and Fractures of the Shaft of the Femur

This course will give the DScPAS-CO resident knowledge about the general anatomy, biomechanical pathology, signs and symptoms, examination, diagnostic imaging, and classification of subtrochanteric and femoral shaft fractures.

6218 Fractures of the Proximal Tibia, Fibula and Patella

This course will give the DScPAS-CO resident knowledge about the general anatomy, biomechanical pathology, signs and symptoms, examination, diagnostic imaging, and classification of select common fractures of the proximal tibia, fibula and the patella.

6219 Knee Injuries and Fractures of the Tibia and Fibula Shafts

This course will give the OPA resident knowledge about the general anatomy, biomechanical pathology, examination, diagnostic imaging, and classification of select common injuries of the knee as well as examination, diagnostic imaging, and classification of select common fractures of the tibia and fibula.

6220 Ankle Fractures and Fractures of the Talus

This course will give the OPA resident knowledge about the general anatomy, biomechanical pathology, examination, diagnostic imaging, and classification of common select fractures and dislocations of the ankle and talus.

6221 Fractures and Dislocations of the Midfoot, Forefoot, and Calcaneous

This course will give the OPA resident knowledge about the general anatomy, biomechanical pathology, examination, diagnostic imaging, and classification of common select fractures and dislocations of the calcaneous, midfoot, and forefoot.

6301 Foot and Ankle Practical Rotation

This is a one-month clinical and surgical rotation on service with a fellowship-trained foot and ankle surgeon and a team of surgical residents.

6302 Orthopaedic Spine Rotation

This is a one-month clinical and surgical rotation on service with a fellowship-trained orthopaedic spine surgeon and a team of surgical residents.

6303 Pediatric Orthopaedic Surgery Rotation

This is a one-month clinical and surgical rotation on service with a fellowship-trained pediatric orthopaedic surgeon and a team of surgical residents.

6304 Orthopaedic Total Joint Rotation

This is a one-month clinical and surgical rotation on service with a fellowship-trained total joint surgeon and a team of surgical residents.

6305 Orthopaedic Hand Surgery Rotation

This is a one-month clinical and surgical rotation on service with a fellowship-trained hand surgeon and a team of surgical residents.

6306 Orthopaedic Tumor Rotation

This is a one-month clinical and surgical rotation on service with a fellowship-trained musculoskeletal oncologist and a team of surgical residents.

6308 Orthopaedic Emergencies and Inpatient Care

Instructs students on appropriate care for orthopaedic emergencies while on call for the Emergency Department and while doing daily rounds on orthopaedic inpatients. Instruction also covers daily wound care for orthopaedic inpatients as well as preoperative and postoperative management.

6346 Clinical Research

The MCO 6346 course consists of a didactic phase during the first month of training, dedicated research blocks, and individual research days scheduled throughout the eighteen-month course. The research course is designed to familiarize residents with the research process and, more importantly, to facilitate the development of the skills necessary to critically analyze published scientific articles, including statistical aspects of those articles.

6401 Orthopaedic Sports Rotation

This is a two-month clinical and surgical rotation on service with an orthopaedic sports medicine surgeon and a team of surgical residents.

6402 Orthopaedic Trauma Rotation

This is a two-month clinical and surgical rotation on service with a fellowship-trained orthopaedic traumatologist and a team of surgical residents.

ECONOMICS (MECO)

5132 Macroeconomic Analysis in the Global Economy

Pre-requisite(s): HCA 5309 and MECO 5330.

This seminar builds upon basic macroeconomic principles, applying economic models/theory to the global economies. Global macroeconomics seeks to explain the nature of association among economic forces in markets around the world, such as the impact of the United States fiscal deficit on increased foreign borrowing and forces causing the economic slump in Japan.

5133 Seminar in World Economic Systems

Pre-requisite(s): HCA 5309 and MECO 5330.

This seminar explores differences among economic institutions, policy, and performance in countries around the world and provides information on the methods used to make economic comparisons across countries, examining the relative success or failure of these various economic states. Topics of discussion will revolve around major developments in the world economy.

5330 Principles of Macroeconomics

Pre-requisite(s): HCA 5309.

This course introduces students to the performance of market economies. It addresses market dynamics that affect organizations and management decision-making in order to enhance the ability of the student to understand the context, source, and potential solutions for various problems and opportunities routinely encountered in the practice of management.

5331 Managerial Economics
Pre-requisite(s): HCA 5309 and MECO 5330.

Managerial Economics concerns the efficient management of resources to achieve organizational or enterprise goals by applying economic theory and methodological techniques in the practice of management. This course is focused on the application of economic models, estimation techniques, and fundamental analysis in contemporary private and public markets.

EMERGENCY MEDICINE (MEM)

PHYSICIAN ASST. STUDIES - MIL (MEM)

6142 Radiology
Pre-requisite(s): MEM 6330.

A rotation to orient the Emergency Medicine Physician Assistant Resident to the concepts of radiology in emergency medicine.

6143 Oral-Maxillary Facial Surgery
Pre-requisite(s): MEM 6330.

A rotation emphasizing the management of head and neck disorders. Practicum and didactics in the disorders of the head and neck.

6144 Toxicology
Pre-requisite(s): MEM 6330.

A rotation emphasizing toxicological presentations encountered in the emergency department.

6210 Introduction to Emergency Medicine Resuscitation, Shock, and Anesthesia
Pre-requisite(s): MEM 6330.

This course studies the clinical side of resuscitation techniques, shock recognition and treatment, and anesthesia used in the emergency department.

6211 Emergency Treatment of Orthopedic Injuries, Emergency Ultrasounds, and Emergency Radiology
Pre-requisite(s): MEM 6330.

Study of concepts of orthopedic conditions encountered in the emergency department.

6212 Toxicology and Oral Maxillary Facial Disorders
Pre-requisite(s): MEM 6330.

This rotation studies concepts of toxicological presentations and oral maxillary facial disorders encountered in the emergency department.

6213 Cardiovascular, Pulmonary, Hematologic, Oncologic, and Psychosocial Diseases and Disorders
Pre-requisite(s): MEM 6330.

The study of concepts of cardiovascular, pulmonary, hematologic, oncologic, and psychosocial diseases encountered in an emergency department environment.

6214 Gastrointestinal, Genitourinary, Obstetrics, and Gynecology Diseases
Pre-requisite(s): MEM 6330.

The study of concepts in gastrointestinal, genitourinary, obstetrics, and gynecology diseases encountered in an emergency department environment.

6215 Pediatric Non-Traumatic Musculoskeletal Disorders, Abuse, and Assault
Pre-requisite(s): MEM 6330.

The study of diseases, non-traumatic muscular skeletal disorders, assault and abuse in the pediatric emergency department patient.

6216 Emergency Wound Management, Environmental Injuries, and Trauma
Pre-requisite(s): MEM 6330.
The study of concepts in wound management, environmental injuries, and trauma encountered in the emergency department.

6217 Infectious Disease, Endocrinology, and Neurology
Pre-requisite(s): MEM 6330.
The study of concept in infectious diseases and endocrinologic, and neurologic disorders that are encountered in an emergency department.

6220 Advanced Emergency Medicine, Resuscitation, Shock, and Anesthesia
Pre-requisite(s): MEM 6210.
This course builds upon MEM 6210 and studies the clinical side of resuscitation techniques, shock recognition and treatment, and anesthesia used in the emergency department.

6221 Advanced Emergency Treatment of Orthopedic Injuries, Emergency Ultrasounds, and Emergency Radiology
Pre-requisite(s): MEM 6211.
Study of advanced concepts of orthopedic conditions encountered in the emergency department.

6222 Advanced Toxicology and Oral Maxillary Facial Disorders
Pre-requisite(s): MEM 6212.
This rotation studies advanced concepts of toxicological presentations and oral maxillary facial disorders encountered in the emergency department.

6223 Advanced Cardiovascular, Pulmonary, Hematologic, Oncologic, and Psychosocial Disorders
Pre-requisite(s): MEM 6213.
The study of advanced concepts of cardiovascular, pulmonary, hematologic, oncologic, and psychosocial diseases encountered in an emergency department environment.

6224 Advanced Gastrointestinal, Genitourinary Obstetrics, and Gynecology Diseases
Pre-requisite(s): MEM 6214.
The study of advanced concepts in gastrointestinal, genitourinary, obstetrics, and gynecology diseases encountered in an emergency department environment.

6225 Advanced Pediatrics Non-Traumatic Musculoskeletal Disorders, Abuse, and Assault
Pre-requisite(s): MEM 6215.
The advanced study of diseases, non-traumatic muscular skeletal disorders, assault, and abuse in the pediatric emergency department patient.

6226 Advanced Emergency Wound Management, Environmental Injuries, and Trauma
Pre-requisite(s): MEM 6216.
The study of advanced concepts in wound management, environmental injuries, and trauma encountered in the emergency department.

6227 Advanced Infectious Disease, Endocrinology, and Neurology
Pre-requisite(s): MEM 6217.
The study of advanced concepts in infectious diseases, endocrinologic, and neurologic disorders that are encountered in an emergency department.

6231 Emergency Department 1
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6232 Emergency Department 2
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6233 Emergency Department 3
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6234 Emergency Department 4
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6235 Emergency Department 5
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6330 Orientation to Emergency Medicine
A comprehensive orientation to the field of Emergency Medicine, with formal presentations/ lectures, ACLS/PALS, Emergency Department administrative issues, Emergency Medical Services, ethics and professionalism, and an introduction to research in emergency medicine.

6336 Emergency Department 6
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6337 Emergency Department 7
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an Emergency Department setting.

6338 Emergency Department 8
Pre-requisite(s): MEM 6330.
General emergency medicine rotation to apply the concepts of medical practice in an emergency department setting.

6346 Clinical Research
Pre-requisite(s): MEM 6330.
The MEM 6346 rotation consists of a didactic phase during the first month of training, dedicated research blocks, and individual research days scheduled throughout the 18-month course. The research course is designed to familiarize the residents with the research process and, more importantly, to facilitate the development of the skills necessary to critically analyze published scientific articles.

6439 Pediatrics Emergency Department
Pre-requisite(s): MEM 6330.
A rotation emphasizing the clinical side of pediatric patients in the emergency department.

6440 Pediatrics Emergency Department and Pediatric Intensive Care Unit
Pre-requisite(s): MEM 6330.
A rotation emphasizing the clinical side of pediatric patients in the Emergency Department and Pediatric ICU.

6445 Emergency Ultrasound

Emergency ultrasound is the medical use of ultrasound technology for the bedside diagnostic evaluation of emergency medical conditions; resuscitation of the acutely ill, critically ill or injured; and guidance of high risk or difficult procedures. Typically, emergency ultrasound is a goal-directed, focused ultrasound examination that answers brief and important clinical questions in an organ system or involving multiple organ systems.

6447 Surgical Intensive Care Unit (SICU)

Pre-requisite(s): MEM 6330.

A rotation emphasizing the concepts and management of trauma and post-operative patients encountered in the Emergency Department.

6448 Medical Intensive Care Unit (MICU)

Pre-requisite(s): MEM 6330.

A rotation emphasizing life threatening diseases encountered in the emergency department and managed in the MICU.

6449 Cardiac Care Unit (CCU)

Pre-requisite(s): MEM 6330.

A rotation emphasizing the concepts of cardiovascular diseases encountered in the emergency department and managed in the CCU.

6450 Trauma Surgery

Pre-requisite(s): MEM 6330.

A rotation emphasizing the concepts of trauma management and lifesaving surgery.

FINANCE (MFIN)

5340 Investments

Through a study of portfolio theory and asset-pricing models, students acquire the analytical skills necessary to conduct valuations of equities, fixed income securities, and alternative investments. This course applies theoretical concepts to investment analysis and portfolio management.

HEALTH CARE ADMINISTRATION (HCA)

5101 Graduate Management Study Development 1

This is the first in a series of three (1) credit Graduate Management Study (GMS) writing courses for students on the Executive Clinical Leadership track. The goal of this specific course is completion of the GMS proposal.

5102 Graduate Management Study Development 2

This is the second in a series of three (1) credit Graduate Management Study (GMS) writing courses for students on the Executive Clinical Leadership track. The goal of this specific course is completion of the GMS.

5103 Graduate Management Study Development 3

This is the third in a series of three (1) credit Graduate Management Study (GMS) writing courses for students on the Executive Clinical Leadership track. The goal of this specific course is to use the GMS as a basis from which to submit an article to a peer reviewed journal.

5105 Ethics in Health Care

This course begins with discussion of the major critical principles in bioethics and models for ethical decision-making and is followed by topical readings and discussion in the five core

competencies is ethics recommended by the National Summit on the Future of Education and Practice in Health Management and Policy.

5106 Fundamentals in Graduate Studies

This course teaches skills and design concepts necessary for employing the abilities and functions of Microsoft Excel programs and processing, understanding and manipulating the basic ability of SPSS to analyze and manipulate data points, using library and electronic resources for analyzing journal articles and basic research tools, and improving upon effective written communication tactics while focusing on proper APA formatting. Students learn through practical exercises with real data allowing them to create, manipulate, and use spreadsheets; work the interface between Excel and SPSS; and work with hands-on research tools and basic writing exercises to improve the basic skills required in graduate studies.

5201 Residency Rotation

During this required residency and under the guidance of a qualified preceptor, degree candidates are provided opportunities to study and analyze the functional elements of a hospital. Their managerial skills are developed through varied experiences, the performance of administrative tasks, and direct participation in the problem-solving process. They also perform special studies in functional areas and conduct one graduate management project.

5213 Health Policy

Pre-requisite(s): All MHA Core Courses.

A comprehensive model of health policy analysis to include its major objectives and methods and its relationship to the field of health services research. An organizing framework is provided that integrates concepts and methods from the fields of epidemiology, economics, ethics, political science and related disciplines. Emphasis is on integrating policymaking with the major system performance objectives of effectiveness, efficiency, and equity. This course includes the impact of health policies on the health of individuals and populations, the political trade-offs and social dimensions of policy making and how future healthcare policy is likely to be affected by the political marketplace and the economy.

5231 Seminar in Human Resources Management

Study of human resource management with emphasis on issues confronting health care administrators. Examination of emerging practices affecting procurement, compensation, retention, evaluation, training, and development of the human resources needed to provide health care and labor management relations. Emphasis on case studies, current trends and practical applications.

5301 U. S. Health Care Systems

Conceptual dimensions for health services organizations/systems at the macro and micro level are considered. Various aspects of health delivery systems are examined including clinics and hospitals, as well as managed care systems and other third-party payers. Provides a conceptual framework for identifying, analyzing, evaluating and managing factors that influence the design, structure and effective operation of hospitals and other health care organizations. Material for this course considers a historical perspective and is drawn from a variety of disciplines, including economics, sociology, and the behavioral and biological sciences.

5306 Current Issues in Healthcare Quality

Pre-requisite(s): All MHA Core Courses.

Covers the historical evolution, current concepts, and future trends associated with monitoring and evaluation of health quality. Explores the major components of quality improvement to include patient care assessment, risk management, patient safety/environment of care, medical management, outcomes management, and process improvement.

5307 Residency Rotation 2

Pre-requisite(s): HCA 5201

During this required residency and under the guidance of a qualified preceptor, degree candidates are provided opportunities to study and analyze the functional elements of a hospital.

Their managerial skills are developed through varied experiences, the performance of administrative tasks, and direct participation in the problem-solving process. Students also perform special studies in functional areas and conduct a graduate management project.

5308 Lean Six Sigma

Given the widely used lean six sigma tools in today's business environment, this course provides an understanding of lean processes and introduces students to the DMAIC cycle of process improvement. Classes are often hands-on and participative. Students will earn a green belt certificate of training for this course. They can earn a full green belt certification following successful completion of a project outside the course.

5312 Issues in International Health

Health policies and delivery mechanisms within representative countries. Cross-cultural analytical techniques are reviewed. International health organizations, programs, and other cooperative efforts are discussed. International issues concerning environmental health, health status, and health care activities are studied.

5317 Health Management Information Systems

Studies focus on information technology and systems, including historical development, for conceptual understanding of the evolution from reporting accounting data to newer broad-based information support applications in the delivery of health care. Emphasis is placed on the fundamental principles of collecting and analyzing data for the production of information that supports management, operations, planning and decision making. Discussion of case studies, including health care examples, leads to an understanding of appropriate and cost-effective applications of technology. Analytical study of a health care system and the design of a current medical information support system synthesize the content of the course.

5318 Finance III: Financial Applications

This course is designed to teach healthcare leaders their role in operating, managing and directing the military and federal financial system. The course provides in-depth knowledge of the military health system and the business case analysis approach to decision-making and builds on sound financial practices learned in HCA 5350 & HCA 5353. With an emphasis on executive-level critical thinking skills, it allows students to integrate and apply previously learned tools and abilities to military specific activities.

5322 Organizational Behavior and Theory with Human Resources

The focus of this course is the application of human resources and theory in the organization setting. Emphasis is placed on the skills and competencies necessary for effective health services management as well as the functions performed by, and roles required of, middle and senior level managers. The course is also separated into elements of micro and macro organizational behavior and theory - as well as key issues in human resource management.

5329 Leadership in Complex Organizations

This course is designed to explore a broad range of leadership issues. Students will have the opportunity to examine their own leadership qualities and develop ways to improve them. Readings will cover both theoretical bases for leadership and practical strategies for effective leadership. The format for the class will be group discussion. Each class the instructor or one of the students will present an article/book chapter on leadership and the class will discuss its relevance and importance.

5330 Health Care Contracting and Negotiations

The common law of contracts will be analyzed in the areas of formation, performance and discharge, breach and remedies, the statute of frauds, covenants, and third-party rights. The bases of government contracting will be laid and followed by study of contract types, formation, administration, termination, remedies, and ethical problem areas. The study of negotiations will include the process and applicable techniques, strategies, and tactics.

5334 Current Problems in Bioethics and Health Law

The fundamentals of ethical decision making followed by study of current critical areas, such as abortion, the right to die; organ harvesting and transplanting; genetic screening, counseling, and engineering; other human subject research; and allocation of scarce resources or "the right to health care."

5336 Health Care Jurisprudence

The foundations of our legal system, the process of civil litigation, and tort law and contract law as they pertain to the health care system. Basic elements of contracting will be addressed, but the emphasis will be on tort law and the interface between tort law and contract law. More specific topics may include: the medical standard of care; federal tort law/liability of federal providers, informed decision-making; defining death and legal actions involving dead bodies; abortion/family planning; medical research; management of medical information; the right to practice; and anti-trust issues. Medical ethics will be distinguished from medical law and ethical aspects of classic cases will be noted.

5340 Selected Topics in Financial Management

Managing the external interface with markets (stock and bond valuation and issuing, endowment management, cash management and dividend policy) and advanced tools for managing financial resources (modeling and simulation, process costing, activity-based costing, transfer pricing and joint product costing).

5342 Health Applications in Networking (Elec)

Provides a conceptual framework for identifying, creating, applying resources and advances in networking, telecommunications, and telemedicine to specific diseases, problems in health care, and public health. Resources on the Internet will be used to develop HTML documents. Databases will be explored to develop in-depth reports on individual diseases, resources, public health and infrastructure deficiencies, and health related issues of concern to military operational planners and health care executives.

5344 Advanced Research Methods

Pre-requisite(s): HCA 5310 and 5311.

Advanced Research Methods combines skills learned in research methods, statistics, and organization behavior into a blended class that integrates the three previous courses with large databases and statistical software. Students are expected to design research methodologies based on sound theoretical modeling techniques resulting in testable hypotheses reviewed through appropriate analytical assessments. Mathematical/Statistical proofs, operationalization & transformation of data, power and error analysis, and advanced techniques in MANOVA, regression and research design are emphasized.

5350 Finance I: Financial and Managerial Accounting in Healthcare Organizations

Purpose and methods of financial accounting (including for-profit, and government), function and organization of the financial resource department, and special industry characteristics affecting financial management (to include third party payers and insurers, price or rate setting and cost shifting, taxation and healthcare incentives, and alternative organizations.

5353 Finance II: Financial Management of Healthcare Organizations

Pre-requisite(s): HCA 5350.

Planning and controlling functions (time value of money, pro formas and budgets, ratio analysis), balance sheet management (working capital budgeting, debt and equity financing), and cost management (cost classification allocation and apportioning methods, standard budgeting, break-even and variance analysis).

5355 Law and Ethics of War and Terrorism

With an emphasis on medical service, this course explores the ethical and legal aspects of military service through current literature, discussion, and film. It includes a study of that area of the law called just war theory and distinguishes terrorism from conventional war.

5356 Organizational Ethics

This course will review major ethical theories, principles, decision-making methods, and the relationship between ethics and leadership. Clinical ethics topics will be considered from an organizational perspective, and topics with a more definitive business focus will be addressed. Case studies will be developed, analyzed, and discussed

5357 MEDCOM Analytics

This class introduces healthcare leaders to current critical topics and techniques in US Army Medical Command (MEDCOM) Analytics. Though focused on MEDCOM analytics, the material will have substantial applicability to other students in the military health system. The course enhances critical thinking and develops student abilities to conduct data analysis, using M2 as the primary platform.

5389 Population Health & Homeland Security

Introduces students to epidemiology as a diagnostic discipline of population health. Material discussed will prepare students to communicate concepts of risk and understand epidemiological information. Common tools will be introduced to evaluate health problems and policies at a population level. In addition, the course will examine medical readiness and explore the boundaries of the twenty-first-century national security mission. This will be accomplished by examining the threats, actors, and organizational structures and resources required to defend the American homeland.

5390 Consulting Practicum in Health Care Administration

A work group project course where students personally observe, analyze, synthesize, evaluate, and report on various real-world healthcare problems in local health services facilities. Students are expected to integrate acquired knowledge, skills, and analytical tools previously obtained in the didactic year regarding the management of health services. The course focuses on significant problems and evolving trends in the local community and their implications for efficient and effective healthcare delivery.

5410 Quantitative Analysis I: Statistics and Research Methods for Health Care Administration

Basic research method techniques and common statistical applications are presented. Statistical techniques for problem-solving and decision-making including theoretical and applied statistical and quantitative skills to understand, conduct and evaluate managerial research. Topics to be investigated include measurement theory, the scientific method, the research process, experimental design, hypothesis construction and testing, critical evaluation of research, questionnaire construction, rating scales, sampling, indices of validity and reliability, data collection, coding, and reduction. Concepts of functional relationships, descriptive measures, probability distributions, sampling, hypothesis testing, inference, chi-square, student's t-test, correlation, regression, and analysis of variance are discussed.

5411 Quantitative Analysis II: Decision Making with Statistics and Research

Pre-requisite(s): HCA 5410.

Advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical, administrative, and managerial research are presented. Decision-making, selection, computation, and interpretation of analytical procedures and methods are discussed. Emphasizing critical thinking and quantitative analysis, students select appropriate secondary data on a management problem and posit research questions, develop logical hypotheses linked to data and theory, and analyze and make decisions and recommendations based on findings. Advanced techniques such as power analysis, MANOVA, and logistic regression are covered. The course capstone is the group presentation of research findings in the J-Dewey Lutes research symposium.

5961 Administrative Residency

Pre-requisite(s): All Didactic Phase Courses.

During this required residency and under the guidance of a qualified preceptor, degree candidates are provided opportunities to study and analyze the functional elements of a hospital and/or healthcare organization. Their managerial skills are developed through varied experiences, the

performance of administrative tasks, and direct participation in the problem-solving process. Students also perform special studies in functional areas and conduct graduate management projects. Approval of the proposal and the completed research is secured from the program's Residency Committee.

5V92 Special Studies in Health Care Administration 1 to 3 sem. hrs.

Advanced work jointly planned by the professor and student in any of the various disciplines of health care administration represented by members of the graduate program faculty. The course provides students with a structured study in the selected topic area and permits advanced application of prior course work. May be repeated with a different topic for up to twelve hours credit.

MANAGEMENT (MMGT)

5162 Seminar in International Management

Pre-requisite(s): MINB 5350.

This seminar analyzes strategies and strategic responses of individual firms operating internationally. The evolution of global industries, global competition, and global strategies is emphasized throughout. Special emphasis is placed on the cultural differences between countries and their implications for international management efforts.

5425 Strategic Management

Pre-requisite(s): All MHA Core Courses.

This capstone course is oriented toward the successful application of strategic management concepts and principles in the field of management and health administration. The course integrates knowledge content from across the curriculum, including economics, finance, quantitative analysis, marketing, leadership, and health systems. Primary topic areas of strategic management are formulation, implementation, and evaluation.

5460 Operations Management and Research

Pre-requisite(s): HCA 5410.

This course provides an introduction to the concepts and analytic methods that are useful in understanding the management of a firm's operations. It provides basic definitions of operations management terms, and tools and techniques for analyzing operations and making operational decisions. The course emphasizes application of concepts, techniques and methodologies from the field of operations management to organizations in service industries.

MARKETING (MMKT)

5171 Seminar in International Marketing

Pre-requisite(s): HCA 5315 and MINB 5350.

Explores environmental/cultural approach to international marketing and important global marketing trends, including growth/expansion of the world's big emerging markets, rapid growth of middle income market segments, and steady creation of regional market groups. Case studies are used to develop global and strategic thinking in terms of the marketing 4Ps.

5370 Advanced Marketing Practicum

Pre-requisite(s): HCA 5315.

This distance learning course provides students an additional opportunity to apply more advanced marketing principles and concepts through the use of marketing case studies and a computer-assisted marketing simulation game. Emphasis will be placed on both analytical and quantitative approaches to marketing decision-making during the student's residency year.

5371 Marketing Management

Concepts and theories pertaining to marketing management. A comprehensive approach

to translating the strategic plan of the organization into a functional marketing plan that can be implemented in an effective manner in order to increase the market share of the target public. Emphasis will be placed on both analytical and quantitative approaches to marketing.

MASTERS PROGRAM NUTRITION (MPN)

NUTRITION - MILITARY (MPN)

5109 Current Issues in Nutrition

In this evidence-based seminar, students will explore emerging trends and issues in the nutrition sciences. Topics will change each year to reflect current issues and interests.

5202 Vitamin and Mineral Metabolism

This course will provide an in-depth review of vitamin and mineral metabolism and function in humans.

5303 Research Methods II

Pre-requisite(s): MPN 5401.

This course includes a combination of lecture and practical exercises that emphasize the steps and principles of research. Students will participate in all steps of research, working individually as well as in small groups. Steps include the protocol approval process, volunteer recruitment, data collection, data analysis/interpretation, and preparation of written and oral presentations of research findings.

5304 Biochemistry

Evaluates the underlying role of the molecular structure and function of biological molecules including proteins, carbohydrates, lipids, nucleic acids, vitamins, hormones, and buffers; their anabolism; catabolism; and regulatory mechanisms and overall integration and regulation in the clinical manifestation of disease.

5305 Protocol Development

Co-requisite(s): MPN 5401.

Students will explore topics for protocol development. Hypotheses will be generated and supported by literature reviews.

5307 Nutrition in Stability Operations

This course is designed to provide students with in-depth knowledge of nutrition issues confronted in complex emergencies and within the developing world. Emphasis will be placed on macronutrient and micronutrient malnutrition, assessment of nutritional needs, nutritional surveillance and food distribution programs.

5309 Advanced Energy Metabolism

Corequisite(s): MPN 5304, 5405.

Introduction to various energy disorders, energy metabolism, and bioenergetics; requires application of evidence-based practice in a variety of energy-related disease states and disorders; requires critical assessment of the validity and logic behind weight loss claims and advertisements; explores best practices for adult and pediatric weight management; and includes aspects of gene expression, nutrigenomics, and nutrigenetics.

5310 Force Health Protection

This course is designed to introduce students to public health and preventive medicine measures and programs that uniquely impact military populations, both in garrison and in deployed settings.

5311 Leadership and Management Development

This course is designed to explore a broad range of leadership topics and issues, and to help students develop their executive skills for future roles as managers in clinic and food service operations. Students will have the opportunity to examine their own leadership qualities and develop ways to improve them. Readings will cover both theoretical bases for leadership and practical strategies for effective leadership in the diagnosis, prediction, and analysis of human behavior in organizations.

5312 Effective Scientific Writing

This course develops and/or builds upon skills for critically evaluating peer reviewed literature, finding literature for a specific topic of interest, determining the appropriate literature for a specific literature review topic, and synthesizing what is read in the literature into a clearly written, coherent literature review.

5401 Research Methods I

This course is designed to introduce students to the basic and advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research.

5404 Advanced Nutrition and Critical Care

This course provides an in-depth review of the study and application of nutrition principles related to the critically ill patient with an emphasis on trauma and burn. Course includes lab.

5405 Medical Nutrition Therapy

In this course, students learn how to implement the nutrition care process to provide medical nutrition therapy to patients with various disease states. Course includes lab.

5406 Nutrition and Performance

This course provides students with an in-depth knowledge of how nutrition variables can impact both physical and cognitive performance. Topics include exercise physiology, exercise screening, fuel mobilization (carbohydrate, fat, and protein), micronutrients (vitamins and minerals), hydration, body composition, supplements, and energy balance. Course includes lab.

5409 Advanced Anatomy & Physiology

In this course, students will explore anatomy, physiology and pathophysiology of the gastrointestinal, urinary, respiratory, cardiovascular, endocrine and reproductive systems.

5V98 Master's Research Project **1 to 9 sem. hrs.**

Student will participate in a group research project (data collection, analysis, and presentation).

5V99 Master's Thesis **1 to 9 sem. hrs.**

Student will complete an individual research protocol (data collection, analysis, and presentation).

MILITARY GENERAL SURGERY (MGS)

PHYSICIAN ASST. STUDIES - MIL (MGS)

6210 Surgical Basic Principles

Historical surgical perspective on basic cellular, physiological principles of surgery.

6211 Perioperative Management

Basis of surgery is evaluation of the risk factors of a potential surgical patient. Perioperative management focus on the risk, benefits, and infections of surgery and the complications of anesthesia.

6212 The Abdomen
The anatomy and physiological process that occur within the abdomen (abdominal wall, umbilicus, peritoneum, mesenteries, omentum, retroperitoneum, hernia, acute abdomen, and acute gastrointestinal hemorrhage).

6213 Surgery of the Esophagus and Stomach
Anatomy, physiology, disease process, and surgical treatments of the stomach and esophagus, along with hiatal hernia and gastroesophageal reflux disease.

6214 Surgery of the Small Intestine, Large Intestine, Rectum, and Anus
Surgical anatomy, pathophysiology, disease process, and treatment of the small intestine, large intestine, rectum, and anus.

6215 Surgery of the Liver and Biliary Tract
Anatomy, pathophysiology, disease process, and treatments of liver and biliary tract.

6216 Surgery of the Pancreas and Spleen
Anatomy, pathophysiology, disease process, and treatments of the pancreas and spleen.

6217 Endocrine Surgery
Anatomy, pathophysiology, disease process, and treatment of thyroid, parathyroid, adrenal glands, and endocrine of the pancreas.

6218 Breast Surgery
Anatomy, pathophysiology, disease process, and treatment of the breast.

6219 Neurosurgery, Pediatric Surgery
Anatomy, pathophysiology, disease process, and treatments in neurosurgery and pediatric surgery.

6220 Burn/Critical Care Surgery
Anatomy, pathophysiology, disease process, and treatments associated with burn surgery.

6221 Trauma Surgery
Anatomy, pathophysiology, disease process, and treatment related to trauma surgery.

6222 Surgical Critical Care
Anatomy, pathophysiology, disease process, and treatments related to surgical critical care.

6223 Surgery on the Lung, Chest Wall, and Mediastinum
Anatomy, pathophysiology, disease process, and treatments related to the lung, chest wall, and mediastinum.

6224 Surgical Oncology
Anatomy, pathophysiology, disease process, and treatment of surgical oncology.

6225 Vascular Surgery
Anatomy, pathophysiology, disease process, and treatment in vascular surgery.

6330 Orientation to General Surgery
This rotation emphasizes the clinical skills of providing care and treatment to patients with surgical disease.

6331 General Surgery Team A (Colorectal, General Surgery, Pediatric)
Rotation is a block emphasizing colorectal and pediatric surgery cases presenting to the General Surgery Department.

6332 General Surgery Team B (Minimally Invasive Surgery)
This is a clinical block of instruction emphasizing minimally invasive surgery for general surgery and bariatric cases.

6333 General Surgery Team C (General Surgery)
This rotation is a block emphasizing minimally invasive and bariatric cases presenting to the General Surgery Department.

6334 General Surgery (WH)
This rotation is a block emphasizing general surgery cases presenting to the General Surgery Department.

6335 General Surgery Team D (Surgical Oncology)
This rotation is a block emphasizing surgical oncology cases presenting to the General Surgery Department.

6336 Interventional Radiology
This rotation is a block emphasizing interventional radiology cases presenting to the Interventional Radiology Department.

6337 Trauma Surgery (Rotation 1)
This rotation is a block emphasizing trauma surgery cases presenting to the Trauma Surgery Department.

6338 Vascular Surgery
This rotation is a block emphasizing vascular surgery cases presenting to the Vascular Surgery Department.

6339 Burn Surgery/Burn Critical Care (Rotation 2)
This rotation is a block emphasizing burn surgery/burn critical care cases presenting to the Burn Surgery Department.

6340 Plastic Surgery
This rotation is a block emphasizing plastic surgery cases presenting to the Plastic Surgery Department.

6341 Neurosurgery
This rotation is a block emphasizing neurosurgical cases presenting to Neurosurgery Department.

6342 Trauma Surgery (Rotation 2)
This rotation is a block emphasizing trauma surgery cases presenting to the Trauma Surgery Department.

6343 Trauma/Surgical Intensive Care Unit (Rotation 1)
This rotation is a block emphasizing trauma/surgery intensive care unit (STICU) cases presenting to the Trauma Surgery Department.

6344 Trauma/Surgical Intensive Care Unit (STICU) (Rotation 2)
This rotation is a clinical block emphasizing trauma/surgical intensive care unit (STICU) cases that present to the Trauma Surgery Department.

6345 Burn Surgery/Burn Critical Care (Rotation 1)
This rotation is a clinical block emphasizing burn surgery/burn critical care cases presenting to the Burn Surgery Department.

6346 Elective Concentration
This rotation is a block emphasizing an elective concentration rotation for the resident.

6347 Clinical Research
In this course, students develop the knowledge to plan, organize, conduct, and submit for publication an approved Investigative Review Board (IRB) research project.

6348 Neurosurgery (Rotation 2)
Clinical Rotation in Neurosurgery evaluating Neurosurgery trauma, performing Neurosurgery procedures, interventions, and treatment.

6349 Orthopaedic Trauma (Rotation 1)
Clinical Rotation evaluating orthopaedic trauma and performing orthopaedic trauma procedures, interventions, and treatments.

6350 Orthopaedic Trauma (Rotation 2)
Clinical rotation evaluating orthopaedic trauma and performing orthopaedic trauma procedures, interventions, and treatments.

NURSING (MNUR)

6132 Clinical Concepts of Nurse Anesthesia Practice I
Students are introduced to the perioperative management of a patient in a simulated operating room environment utilizing both high fidelity technology and human models. Students learn the necessary equipment and processes utilized by the nurse anesthetist to administer a variety of anesthetics. The Student Registered Nurse Anesthetist will also learn basic and advanced airway management, operating room set up, and patient positioning.

6136 Clinical Concepts for Nurse Anesthesia II
Pre-requisite(s): MNUR 6132.
This course builds on the concepts and knowledge delivered in Clinical Concepts for Nurse Anesthesia I. Students continue the advancement of patient perioperative management in a simulated operating room environment. Students learn the induction sequence for general anesthesia, develop an anesthetic plan of care for complex patients, and conduct preoperative assessments.

6233 Regional Anesthesia and Ultrasound Science I
This course teaches the Student Registered Nurse Anesthetist to apply knowledge of anatomy, physiology, pharmacology, and technology (e.g. ultrasound and nerve stimulation) to the administration and maintenance of regional anesthesia, patient assessment and management, and other related procedures under ultrasound guidance (e.g. central line placement, arterial line placement, intravenous access).

6237 Regional Anesthesia and Ultrasound Science II
Pre-requisite(s): MNUR 6233.
The RAUS II course builds upon the knowledge and skills gained in RAUS I. Students continue to apply their developing knowledge of anatomy, physiology, pharmacology, and technology (e.g. ultrasound and nerve stimulation) to the administration and maintenance of regional anesthesia, patient assessment and management, and other related procedures under ultrasound guidance. The course also introduces additional peripheral and trunk nerve blocks.

6321 Health Care Informatics
This course focuses on the methods and tools of information handling relative to selected aspects of anesthesia nursing, health care, education, and research. The process of organizing, collecting, processing, and analyzing of data is explored as a basis for clinical decision-making.

6323 Research Evidence into Practice

This course prepares the student to undertake systematic investigations of clinical questions from research, evidence-based practice, and quality improvement perspectives. Students examine strategies and tools for retrieval, compilation, critical appraisal, and application of empirical, reflective, and practice-based information to improve quality of care and health outcomes for populations of interest.

6341 Professional Aspects of Nursing Anesthesia

This course provides the Student Registered Nurse Anesthetist with skills to engage in the professional aspects of anesthesia nursing. It prepares the SRNA for the legal ramifications concerning the administration of anesthesia and examines current issues affecting the nurse anesthetist. Also, it outlines historical aspects of the anesthesia practice and shows the progression of the profession through litigation and scope of practice impacts.

6342 Healthcare Management

This course provides a foundation in health care economics, financial and marketing functions, and responsibilities of health care leaders. Specific emphasis is placed on the decision-making process involved in assuring fiscal responsibility and management of the exchange process between an organization and the public by which both parties satisfy their needs and wants.

6343 Health Policy and Law

This course emphasizes the relationships among health policy, law, and nursing practice at both the clinical and systems level. Develops skills to analyze historical, political, ethical, and legal ramifications of current health policies. Advocacy approaches for policy changes from local to global arenas are examined. Students formulate and critique policy proposals that impact access, cost, and healthcare quality.

6344 Leadership in Advanced Practice Nursing

This course provides a solid foundation for providing education in leadership through in-depth analysis of the principles of transformational leadership and organizational behavior pertinent to health care systems. Prepares nursing leaders to use critical thinking skills and evidence-based decision making to affect systems and organizational change.

6371 DNP Scholarly Project 1

This course focuses on the integration of knowledge and skills for a student to design and develop a health care field project in the area of interest. Building on the student's existing clinical competencies, the field project provides an opportunity to gain greater depth and breadth as a leader in direct patient care, health care administration and system development, and nursing education.

6372 DNP Scholarly Project 2

Pre-requisite(s): MNUR 6371.

This course provides the student the opportunity to design and evaluate quality improvement methodologies to promote safe, timely, effective, efficient, equitable, and patient-centered care. In addition, the student examines and applies relevant findings to develop guidelines and improve practice in the clinical environment.

6373 DNP Scholarly Project 3

Pre-requisite(s): MNUR 6371, 6372.

The culmination of this course is the completion of all steps of the DNP Project to include dissemination through a poster offering, defense, and submission to a peer-reviewed journal of the Chair's selection. The result will be the enhancement of patient care or facility functioning through student research, deductive reasoning, and dissemination of evidence-based information.

6411 Biochemistry for Nurse Anesthesia

This course integrates nursing science with basic biophysical sciences to prepare nurses for the highest level of advanced nursing practice in the specialty of anesthesia. The course provides students an opportunity to correlate biochemical principles as they apply to the physiology, pathophysiology, and pharmacology of anesthesia nursing.

6415 Advanced Pharmacology for Nurse Anesthesia II
Pre-requisite(s): MNUR 6513.

This course is the second Pharmacology course to foster advanced understanding of human pathophysiology and therapeutics as a basis for contemporary anesthesia practice. This course complements the biochemistry, physiology, pharmacology, and fundamentals of nurse anesthesia practice courses and emphasizes disease processes and mechanism of action underlying the therapeutic and adverse effects of pharmacotherapies.

6422 Research and Statistical Methods

This course emphasizes the research process and statistics used in scientific inquiry. Research designs, theoretical frameworks, and methods are incorporated. The students have the opportunity to analyze data using SPSS. Threats to internal and external validity are examined. Emphasis is on critical appraisal of research and evidence as a basis for translation into practice.

6434 Advanced Health Assessment and Diagnosis

This course integrates nursing science with biophysical sciences and anesthesia standards of practice to prepare nurses for the highest level of advanced nursing practice in the specialty of anesthesia. This course provides students with the opportunity to refine their assessment skills with an emphasis on assessing for the presence and quantifying the severity of problems with significant implications for anesthesia care.

6513 Advanced Pharmacology for Nurse Anesthesia I

Students learn to apply in-depth knowledge in pharmacology of inhalation agents, IV induction agents, agents that cause smooth muscle relaxation, drugs unique to the administration of anesthesia, agents that affect the autonomic nervous system, neuromuscular blockading agents, and specifically pharmacology of agents that affect the pain pathways. Principles of drug interactions and implications specific to anesthesia.

6514 Advanced Anatomy and Physiology II for Nurse Anesthesia
Pre-requisite(s): MNUR 6612.

This course fosters advanced understanding of human cardiovascular, respiratory, and endocrine anatomy and physiology as a basis for contemporary anesthesia practice. This course complements the biochemistry, pharmacology, and fundamentals of nurse anesthesia practice courses and emphasizes homeostatic mechanisms in the resting patient.

6551 Nurse Anesthesia Clinical Practicum I

This course provides the nurse anesthesia residents (Student Registered Nurse Anesthetists) progressive clinical experiences in which they will conceptualize and learn to respond in particular situations by taking into account the patient's history, interrelationships among physiological systems, social interactions with others, and responses to the particular environment.

6552 Nurse Anesthesia Clinical Practicum II
Pre-requisite(s): MNUR 6551.

Students continue to incorporate didactic (Phase 1) knowledge into providing anesthesia care of all forms to patients across the lifespan and American Society of Anesthesiology physical status classification. The Student Registered Nurse Anesthetist continues to receive extensive mentoring and direction with the intent to develop safe SRNAs able to accept increased independence, responsibility, and decision-making abilities.

6553 Nurse Anesthesia Clinical Practicum III
Pre-requisite(s): MNUR 6551, 6552.

The SRNA demonstrates improved technical and organizational skills with an increasing knowledge and awareness of clinical situations. The SRNA gains clinical experience with reduced levels of supervision. Improved organizational abilities enable SRNAs to anticipate and deal with complex situations efficiently. SRNAs demonstrate improved prioritization while developing an internal compass to guide clinical decision making.

6554 Nurse Anesthesia Clinical Practicum IV
Pre-requisite(s): MNUR 6551, 6552, 6553

The SRNA learns to evaluate the big (clinical) picture. By synthesizing previous experiences gained in Clinical Practicum 1-3, the SRNA interprets an event without systematically analyzing each aspect. The SRNA learns to recognize subtle nuances, place them into context, recognize their implications, eliminate certain options, and focus on the most important aspects to make a decision without considering a myriad of options.

6612 Advanced Anatomy and Physiology I for Nurse Anesthesia

This course fosters advanced understanding of human cellular and neuromuscular anatomy and physiology and regional anatomy as a basis for contemporary anesthesia practice. This course complements the biochemistry, pharmacology, and fundamentals of nurse anesthesia practice courses and emphasizes homeostatic mechanisms in the resting patient as well as gross anatomy to support airway management and regional anesthesia.

6631 Fundamentals of Anesthesia Practice I

This course provides the principles governing the practice of anesthesia, including Physical Principles, Anesthesia Gas Delivery Systems, Preparation for Administration of Anesthesia, and Intraoperative Management of Anesthesia. Students are introduced to the formulation of anesthetic care plans, anesthetic techniques, prevention of patient complications, procedures and equipment requirements, monitoring, record keeping, and care of equipment.

6661 Nurse Anesthesia Role Development I

The Student Registered Nurse Anesthetist will show awareness and begin to develop Emotional Quotient and personal attributes to positively affect health care delivery. SRNAs will learn about EQ, conduct their own self-assessments, and develop individualized plans for professional growth which include anxiety management, methods to foster confidence, and ways to cultivate positive attitudes.

6662 Nurse Anesthesia Role Development II
Pre-requisite(s): MNUR 6661.

This course implements and integrates Emotional Quotient, values, and personal attributes based on self-development. The Student Registered Nurse Anesthetist seeks opportunities to promote self-development, techniques to further enhance skills for self-care, and positive thinking habits to build confidence and empowering attitudes. SRNAs proactively seek opportunity to participate in various experiences to enhance their self-development.

6663 Nurse Anesthesia Role Development III
Pre-requisite(s): MNUR 6661, 6662.

Students participate in experiences that develop healthcare leadership competencies. They precept junior residents, interns, medical students, and new graduate nurses. Students are directly involved in independent case management. Also, students observe and demonstrate effective leadership behaviors while on rotations, during capstone presentations and TeamStepps, and professionally communicating with individuals and groups.

6664 Nurse Anesthesia Role Development IV
Pre-requisite(s): MNUR 6661, 6662, 6663.

The Student Registered Nurse Anesthetist analyzes and relates how one's Emotional Quotient, personal attributes, and leadership competencies impact healthcare outcomes (competent). In day-to-day transactions, the resident creates a positive environment, self-prepares, develops others, and stewards the profession by implementing emotional intelligence, leadership, and the lead competency to impact healthcare delivery in a quality and positive way.

6735 Fundamentals of Anesthesia Practice II
Pre-requisite(s): MNUR 6631

This course provides additional advanced principles governing the practice of anesthesia, regional anesthesia, anesthesia for special patient populations (e.g. pediatrics and obstetrics) and those with various pathophysiologic presentations (e.g. cardiovascular, pulmonary, endocrine, and neuromuscular), anesthesia for trauma, and anesthesia in austere conditions.

MILITARY OCCUPATIONAL THERAPY (MOT)

OCCUPATIONAL THERAPY - MILITARY (MOT)

6116 Management of Combat and Operational Stress Control Residency
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.
Provides application and integration of knowledge and skills attained in the in-depth study of combat operational stress control and the role of the occupational therapist; experienced through forty-eight hours of assessment and intervention in the soldier's work environment.

6132 Burn and Trauma Rehabilitation Residency
Pre-requisite(s): Successful completion of DScOT semesters I & II courses.
Applies the didactic learning from the evaluation and intervention course to the clinic setting with emphasis on assessment and intervention to minimizing devastating and lifelong disability and maximizing patient functional outcome.

6212 Behavioral Health Residency
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.
Focuses on the application of evidence-based concepts and skills for selection of occupational therapy behavioral health assessment and intervention in the clinical and operational setting and promotes the role of the occupational therapist as a member of the behavioral health team.

6213 Evaluation and Intervention: Post-Traumatic Stress & Polytrauma
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.
Emphasizes the evaluation and intervention of individuals experiencing polytrauma including post-traumatic stress disorder, traumatic brain injury, and amputation. Focuses on evaluating the occupational function, cognitive and social performance, behavioral health, amputee rehabilitation, post-surgical limb care, prosthetic selection, assistive technology associated with prosthetics, prosthetic fitting, training, and management including interventions for ADL and IADL, cognitive retraining, communication and interpersonal skills, and community reintegration. Students explore the current literature to evaluate and apply current evidence-based assessment tools and intervention methods that support occupational performance, role competence, and adaptation, quality of life, and client satisfaction outcomes incorporating to utilize for patients experiencing polytrauma. Students learn to integrate evidence-based knowledge to strengthen and/or modify occupational therapy assessment and intervention. Focuses on the special rehabilitation needs of patients with polytrauma in all settings, who enter both the military and civilian health care environments. Methods of instruction include lecture, discussion, readings, and case study analysis.

6214 Post-Traumatic Stress & Polytrauma Residency
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.
The Post-Traumatic Stress Disorder (PTSD) & Polytrauma Residency focuses on the evaluation and intervention of individuals experiencing post-traumatic stress disorder and polytrauma, including TBI and amputation. This course integrates behavioral science knowledge as it relates to occupational therapy and occupational performance in the clinical setting, assessment and intervention including cognitive (i.e., executive functioning), ADL & IADL performance, and social/behavioral performance, and is monitored by a DScOT faculty. Students analyze evidenced-based assessments and intervention methods for their ability to address patient needs and guarantee positive outcomes in the polytrauma patient's occupational performance, role competence, adaptation, quality of life, and/or client satisfaction in the clinical, community, and work settings. The course allows for the clinical application of knowledge gained in the behavioral health and post-traumatic stress, the TBI, and the amputee course that focuses on the evaluation and intervention of polytrauma clients. This residency includes 80 hours of clinical assessment and intervention in a clinical environment. Areas of patient assessment and intervention include cognitive (i.e., executive functioning), ADL & IADL performance, and social/behavioral performance. The student learns to integrate evidence-based knowledge to strengthen and/or modify occupational therapy assessments and interventions of the Soldier, retiree, and family member diagnosed with a Traumatic Brain Injury.

6221 UE Occupation Centered Intervention & Cultural Awareness Residency
Pre-requisite(s): Successful completion of DScOT second semester courses.

This course applies the concepts learned from the UE Occupation Centered & Cultural Awareness Intervention course to UE beneficiaries. The application of these concepts allows the student to explore, apply, and integrate the dimensions of occupation, occupation centered practice, critical reasoning, and culture during clinical intervention.

6223 Critical Research Appraisal

This course introduces the student to critical appraisal of all forms of research in rehabilitation. The purpose of this course is to further develop the student's competence in carrying out and evaluating research. The student develops the skills necessary to find, critically evaluate, and synthesize the available research in order to answer individual research questions and/or create a line of research questions.

6228 UE Occupation Centered Intervention & Cultural Awareness
Pre-requisite(s): Successful completion of DScOT first semester Courses.

Focuses on the ability to explore, apply, and integrate the dimensions of occupation, occupation-centered practice, client-centered practice, reflection, critical reasoning, and culture and their application in the areas of assessment, intervention, and outcome measurement in occupational therapy services for upper extremity beneficiaries.

6342 Upper Extremity Conditions Residency
Pre-requisite(s): Successful completion of DScOT semesters I, II, and III courses.

This is a four-month residency emphasizing the clinical evaluation and treatment of the upper-extremity injured or diseased patient presenting to occupational therapy, under the mentorship of an orthopedic surgeon.

6243 Advanced Hand Surgery Outcomes for Occupational Therapists
Pre-requisite(s): Successful completion of DScOT semesters I, II, and III courses.

This overview of the hand surgeon's model of evaluation and treatment of musculoskeletal disease and trauma and review of outcomes in advanced surgical techniques requires the development and application of a post-operative occupational therapy protocol for treatment of a specialized case.

6311 Evaluation and Intervention: Behavioral Health
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.

Emphasizes the advanced evaluation and treatment of behavioral health conditions, introducing the student to the behavioral health knowledge base and evidence-based practice to integrate critical reasoning and evidence-based practice into occupational therapy behavioral health treatment settings.

6315 Management of Combat and Operational Stress Control
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.

An in-depth study of combat operational stress control and the role of the occupational therapist, experienced through forty-nine hours of didactics and four days of field training in a simulated combat environment. Includes a four-day field training exercise and a twenty-one-hour project and practicum.

6317 Qualitative Methods
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.

Examines qualitative research methods used to enhance evidence-based research for occupational therapists through the analysis of published healthcare research and the employment of qualitative research methodology. Student will also select an appropriate qualitative research method to collect and analyze data associated with his or her research project.

6319 Essentials of Evidence-Based Practice and Clinical Research
Pre-requisite(s): Acceptance into the US Army Doctor of Science Program in Occupational Therapy.

Includes the integration of best evidence and best practice concepts as well as advanced concepts, techniques, and technologies used for the scientific inquiry of applied clinical research.

Emphasis is placed on refining research designs for individual projects and preparing a research protocol for approval by the Institutional Review Board.

6322 Differential Diagnosis in Occupational Therapy
Pre-requisite(s): Successful completion of DScOT first semester Courses.

Poses discussion of the medical history and occupational therapy examination findings of somatic and visceral disorders with reference to their influence on occupational therapy upper extremity musculoskeletal diagnosis, evaluation, and intervention.

6325 Evaluation and Intervention: Ergonomics
Pre-requisite(s): Successful completion of DScOT first semester Courses.

Includes the development of advanced clinical skills in evaluating environments, tools, and equipment for ergonomic intervention. Presents the study of work and ergonomic principles to enhance occupational performance. Includes health promotion and wellness, environmental health engineering, and health risk management.

6327 Quantitative Methods
Pre-requisite(s): Successful completion of DScOT first semester Courses.

Includes in-depth discussion and analysis of the research process including measurement theory, experimental design, hypothesis construction and testing, critical evaluation of research, rating scales, sampling, indices of validity and reliability, statistical analysis, and the appropriate use and interpretation of statistical tests.

6328 Quantitative Methods II
Pre-requisite(s): MOT 6327

Continuation of Quantitative Methods I in which students continue their work with a Faculty Research Advisory Committee on a clinically relevant research project. Specific goals during this course include the completion of a literature review and the beginning of pilot testing and data collection. Also included is material in statistics, which develops the student's use of advanced statistical analysis techniques, including the use of SPSS.

6331 Evaluation and Intervention: Burn and Trauma Rehabilitation
Pre-requisite(s): Successful completion of DScOT semesters I & II courses.

Focuses on the evaluation and intervention involved in burn and trauma rehabilitation as it relates to occupational therapy practice. Special emphasis is placed upon assessment and intervention to minimize devastating and lifelong disability and maximize patient functional outcomes both in the clinic and operational environment.

6336 Aspects of Pharmacology, Complementary and Alternative Medicine, and Nutrition in Occupational Therapy
Pre-requisite(s): Successful completion of DScOT semesters I & II courses.

Focuses on the role and relationship of nutrition, pharmacology, and complementary/alternative medicine in the treatment of specific populations by occupational therapists where emphasis is placed on medical indications and potential effects of drugs and alternative/complementary medicine as well as nutrition on occupational therapy interventions.

6337 Field Research for Occupational Therapy
Pre-requisite(s): Successful completion of DScOT semesters I & II courses.

Builds upon the student's familiarity with the occupational therapy knowledge base, quantitative and qualitative research methodologies, and critical/clinical reasoning and includes the development of a clinical research question, completion of a comprehensive literature review/ systematic review, and writing a research protocol that includes informed consent documents.

6341 Evaluation and Treatment of Upper-Extremity Conditions
Pre-requisite(s): Successful completion of DScOT semesters I, II, and III courses.

Emphasizes the evaluation, diagnosing, and treatment of the upper-extremity injuries or diseases of patients presented to occupational therapy. Provides fifty-six hours of didactics including

all diagnoses related to upper-extremity trauma and disease. Includes pathophysiology of wounds, arthritides, radiology, laboratory tests, and pharmacology.

6344 Advanced Professional Paper Project
Pre-requisite(s): Successful completion of DScOT semesters I, II, and III courses.

Focuses on the completion of the manuscript from the clinical research project with the goal of publication in a peer-reviewed journal and presentation to the occupational therapy community.

6441 Upper Extremity & Behavioral Health Conditions Residency

A four-month course emphasizing the clinical evaluation and treatment of the Upper Extremity injured or diseased patient presenting to occupational therapy with comorbid Behavioral Health symptoms of kinesiophobia, pain catastrophizing, and post-traumatic stress from injury. 160 hours of clinical assessment and intervention including all diagnoses related to BH & UE.

6128 Clinical Management in Army Occupational Therapy
Pre-requisite(s): Successful completion of DScOT third semester courses.

The Clinical Management in Army Occupational Therapy course exposesthe student to the supervisory and leadership responsibilities and demands faced by clinical managers in military occupational therapy clinics. The student examines and analyzes evidence-based solutions for routine and complex managerial problems and demands in order to develop a clinical management plan.

PHYSICAL THERAPY (PT)

PHYSICAL THERAPY - MILITARY (PT)

6107 Emerging Topics in Physical Therapy

The purpose of this course is to provide the students with lectures and interaction with a distinguished visiting professor. The topics and scholars are chosen annually by the faculty. Typically, two visiting scholars provide a daylong interaction with the students. Topics include current issues in the practice and profession of physical therapy.

6120 Evidence Based Practice I

The purpose of this course is to prepare and equip uniformed services physical therapists with the knowledge, skills, and abilities necessary to practice evidence-based physical therapy throughout their career. This is the first of a two-part course that develops the elements that serve as the foundation of evidence-based practice. EBP I focuses on the concepts of evidence-based practice with particular emphasis on literature search strategies and forming answerable clinical questions. In addition, the critical appraisal of literature is fostered in conjunction with the material presented in Research Methods I.

6121 Evidence Based Practice II
Pre-requisite(s): PT 6120

This course prepares and equips uniformed services physical therapists with the knowledge, skills, and abilities necessary to practice evidence-based physical therapy throughout their career. This course builds upon the foundation established in EBP I. EBP II focuses on the concepts of evidence-based practice with particular emphasis on critical appraisal of the literature. The evaluative approach to diagnostic tests and screening tools prepares the students to judge the evidence on the accuracy and validity of diagnostic tests and the application of important diagnostic tests in the care of a specific patient. The evaluative approach to studies of treatment and intervention prepares the student to judge the evidence on clinical trials and systematic reviews. In addition, discussions on how the clinician proceeds in the absence of evidence occur. The focus of this course is on the tests and intervention used in patients with musculoskeletal disorders.

6131 Clinical Pathophysiology

This course presents the fundamental concepts involved in the pathophysiological processes

of injury and disease. Specifically discussed are the causes, mechanisms, clinical manifestations, diagnostic techniques, and clinical management of these various injury and disease processes.

6142 Clinical Medicine III

Pre-requisite(s): PT 6240 and PT 6241.

The information presented in this course reinforces previous neurologic and pediatric education and assists student understanding and application of evidence-based examination, evaluation, assessment, treatment, and referral of adult and pediatric patients with various neurological disorders. This course presents a variety of clinical medicine topics to include adult neurology, pediatric neurology, management of cognitive disorders, and the mechanisms of speech and language disorders.

6151 Pharmacology for Physical Therapists

The purpose of this course is to prepare uniformed services physical therapists for their role as physician extenders by providing instruction in general pharmacologic principles, drugs prescribed by physical therapists, drugs with significant impact on physical therapy practice and issues related to drug prescription.

6172 Research Methods III

Pre-requisite(s): PT 6270 and 6271

A continuation of Research Methods I and II in which students continue their work with Faculty Research Advisory Committee on a clinically relevant research project. Specific goals include: the completion of data collection and analysis, development of poster and platform presentations, oral research presentations, and individual research defense.

6204 Diagnostic Imaging and Procedures

This course presents an eclectic collection of topics related to issues in radiology and nuclear medicine. The emphasis is placed on musculoskeletal imaging with plain films, CT scans, and MRI, and an introduction to musculoskeletal ultrasound. In addition, instruction in medical laboratory diagnostic tests for physical therapists is provided. Lecture and laboratory work in electrophysiologic testing (EMG & NCV) is conducted.

6209 Primary Care Musculoskeletal Physical Therapy

Pre-requisite(s): PT 6402, 6503, and 6601.

This course provides lectures, labs, and case-based learning experiences in differential diagnosis and medical screening in clinical settings. This course is taught in two sections and spans the duration of three academic semesters and the student's clinical internship year. During the first and second semester a regional approach to primary care is covered in one-hour instructional blocks for each of the seven regions. The third semester pulls from the regional course information and shifts the focus onto the various medical systems of the body and teaches the physical therapy student how to conduct a review of systems. The student will integrate this knowledge during their internship clinical experience (fourth semester) and apply it to a real patient case.

6212 Neuroanatomy

Pre-requisite(s): PT 6410 and 6511

A discussion of the normal anatomy of the brain and spinal cord and their supporting structures. Introduction to the Pain and Temperature, Discriminatory Touch and Conscious Proprioception, and Pyramidal Motor Pathways. In depth study of the microscopic structures of the central nervous system. A problem-solving approach to fundamental neuroanatomical pathologies.

6230 Neuromuscular Physiology

This course will consist of a study of normal neuromuscular physiology. The emphasis will be on the cellular functions of neurons and muscle fibers. The goals of the course are to provide foundational knowledge about human function, enhance the student's ability to make quantitative and qualitative observations, and facilitate understanding of the clinical sciences.

6240 Clinical Medicine I

This class consists of topics in pathology, medicine, and surgery with emphasis on signs and symptoms resulting from abnormalities, disease, or trauma that produce disorders of movement. Substance abuse, depression, post-traumatic stress disorders, and cultural variations are presented with an emphasis on how these conditions impact the physical therapy management of patients. This is a lecture-based course taught primarily by guest speakers (subject matter experts) including physicians, physician assistants, medical social workers, dieticians and occupational therapists. Program faculty members present the lectures on arthritis. Group discussion of case scenarios is part of the instructional hours on arthritis.

6241 Clinical Medicine II

Pre-requisite(s): PT 6240

This course consists of an eclectic collection of topics that include a general and specific review of the endocrine, renal, and immune systems; discussion of pelvic floor dysfunction, incontinence, and urinary tract disorders; wound healing and burn care; and a review of women's health topics specific to post-mastectomy rehabilitation and musculoskeletal dysfunction associated with pregnancy.

6250 Therapeutic Interventions

This course is comprised of a wide spectrum of introductory material regarding therapeutic interventions and provides a foundation for the prescription and application of these interventions in patients with neuromusculoskeletal disorders. This course will include topics on planning treatment programs, clinical teaching and patient education, therapeutic exercise, introduction to joint and soft tissue mobilization and manipulations, bandaging, basic ambulation, and wheelchairs. This course consists of lecture and lab periods.

6253 Orthotic and Prosthetic Interventions

Functional and surgical anatomy of upper and lower member amputations and conditions requiring upper/lower member and spinal orthotic intervention are presented. Physiology/ pathophysiology of upper and lower member amputations to include predisposing and complicating factors of traumatic and surgical amputations as well as etiology and response to treatment are covered. The physiologic effects of and response to upper/lower member and spinal orthotic intervention are discussed. Conditions requiring amputation intervention and orthotic use are presented and the biomechanical principles of prosthetic and orthotic fabrication are outlined as are the indications for their selection and use. All phases of upper/lower amputee management are covered in depth and include: preoperative phase, early postoperative phase, rehabilitative phase, and prosthetic fitting phase. Psychomotor tasks related to the upper/lower amputee and the upper/lower member and spinal orthotic patient care are practiced. Discharge planning and self-care/prevention techniques for the amputee and orthotic patient are discussed.

6270 Research Methods I

The first of a three-part series, this course is an in-depth analysis of research design, statistics, and critical appraisal of research literature. This course introduces students to the basic and advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research. Topics to be investigated include the research process and the scientific method, measurement theory, indices of validity and reliability, hypothesis construction and testing, constructing a clinical question, sampling, data collection and coding schemes, experimental design, a hierarchy of evidence, survey research, and guides for critical appraisal of research. During Research Methods I, students begin work on a clinically relevant research project under the direction and supervision of a Faculty Research Advisory Committee.

6271 Research Methods II

Pre-requisite(s): PT 6270

This course is a continuation of Research Methods I in which students continue their work with a Faculty Research Advisory Committee on a clinically relevant research project. Specific goals during this course include the completion of a literature review and the beginning of pilot testing and data collection. Also included is Statistics II, which develops the student's use of advanced statistical analysis techniques, including the use of SPSS analytic software.

6280 Executive Leadership and Management
Pre-requisite(s): Semester II courses.

This course is designed to help junior officer physical therapists develop their executive skills for future clinic leadership/management and for their future leadership positions. The course is the study of management leadership theory and concepts drawn from the behavioral and social sciences and applied to leadership and management in the diagnosis, prediction and analysis of human behavior in organizations. In addition to helping students understand and address change in their own leadership styles, the course addresses change theory, strategic planning, and consulting. The course also includes elements of clinic design and management, continuous quality improvement, legal and legislative issues in physical therapy, and consulting/health promotion. This course is specific to graduates' needs as new Army/Air Force/Navy/Public Health physical therapists. The course has been tailored to the work of a physical therapy professional, where a large part of the position is dealing with people, including patients, personnel, supervisors, third party payers and other professionals. These same skills developed, as a junior officer, will serve the officer well in various future assignments with increased levels of responsibilities. This Executive Skills course is also closely aligned with the LAMP (leadership, administration, management preparation) skills identified by the APTA Section on Administration.

6281 Physical Therapy in Deployed Environments

This course is designed to prepare uniformed service physical therapy students for their roles and responsibilities while deployed for combat operations and support/sustainment operations. The purpose of this course is derived from the principle of "Sports Medicine on the Battlefield - operational readiness through injury prevention and early intervention" developed at the United States Military Academy, West Point, New York. The concepts for managing injured elite athletes and returning them to the playing field as quickly and safely as possible share the goal of returning injured soldiers to their units in garrison or combat. This course provides students an opportunity to develop core-advanced competencies in orthopaedic triage and management of acute musculoskeletal and neurological injuries while deployed. These same evidence-based competencies are used to return injured soldiers - "tactical athletes" - to a high level of military technical and tactical readiness. This course also brings students to an advanced level of understanding in general medicine topics (triage, differential diagnosis, and orthopaedics) and methods of tracking procedures and patient outcomes.

6282 Injury Control and Prevention

This course provides an overview of methods to control/prevent musculoskeletal injuries in physical training environments to include special populations training. It introduces the student to the epidemiology of musculoskeletal physical training injuries, explores intrinsic and extrinsic risk factors for injury as identified in the literature, and teaches the student how to develop an injury control program utilizing the five basic steps of surveillance, research, intervention, outcomes measurement/program monitoring, and program modification. The course is completed with a brief overview of the descriptive and analytical aspects of epidemiologic research as well as a review of specific study designs as applied to injury control research.

6300 Physical Therapy Fundamentals

This course is comprised of a wide spectrum of introductory material including biomechanics and kinesiology, the basic physical examination, joint motion assessment and measurement, muscle strength and flexibility testing, neuromuscular screening, vital signs, cardiopulmonary resuscitation, patient management issues, handling and positioning of patients, written and oral communication, medical records, professional organizations and responsibilities, and professional ethics.

6306 Cardiopulmonary Physical Therapy

The purpose of this module is to prepare physical therapists to consider the cardiovascular system as an integral component of all patients, not solely those patients who have manifest cardiovascular disease. The primary emphasis is how therapeutic exercise can be used in the prevention and treatment of cardiovascular disease, including the effects of exercise on other established risk factors. The student will receive instruction in principles of cardiopulmonary exercise physiology and how these principles can help guide them as they prescribe exercise in a variety of patients. Physical Therapy assessment of patients with cardiovascular disease is addressed, as are

the diagnostic imaging and the medical (including pharmacological) and surgical management of patients. Recommended staffing and operation of a cardiac rehabilitation service is presented, and techniques to maximize patient compliance with the Physical Therapy prescription are reviewed.

6308 Lifespan Physical Therapy
Pre-requisite(s): Semester II courses.

The purpose of this course is to prepare physical therapy students to conduct a clinical examination, evaluation, diagnosis, prognosis, and intervention in pediatric and geriatric clients with neuromusculoskeletal disorders. A framework of normal development and aging will be presented and serve as a course foundation.

6313 Neuroscience
Pre-requisite(s): Semester II courses.

Neuroscience is a formidably comprehensive discipline that combines neurobiology, molecular science, psychology, neuroanatomy, and neurophysiology. This course fosters an understanding of human perception and movement from a basic science level. It complements Neuroanatomy instruction and emphasizes the functional aspects of various neural systems. Normal peripheral and central nervous system function and the pathophysiology of various neurological disorders is discussed. Both a conceptual understanding of the principles of CNS organization and some memorization of specific nuclei and pathways is required. The primary end state of this course is a solid understanding of nervous system structure and function and a foundation that allows students to master future concepts that will be presented in the Neuromuscular Physical Therapy and the Lifespan Physical Therapy courses.

6333 Clinical Exercise Physiology

This course begins with an overview of cardiopulmonary physiology during rest and exercise in the well individual. Students are then introduced to the principles of exercise prescription for the well individual, American College of Sports Medicine exercise guidelines, exercise and nutritional approaches to weight loss, and screening for risk factors for physical activity. Practical exercises include field and laboratory exercise testing of strength, power, and aerobic capacity.

6352 Physical Agent Interventions

This course discusses the roles and mechanisms of various physical agents used in physical therapy and rehabilitation to reduce pain, enhance healing, improve motion, and assist in the recruitment of muscle activity. It is important for the therapist to have a solid understanding of the normal physiology of the cardiovascular and neuromuscular system prior to using an agent that can alter the function of these tissues. A background in the physiology of healing and of modulation of pain serves as a basis for the rationale for using any physical agent. This course provides the foundation needed in clinical decision-making regarding patient care options and physical agents.

6354 Advanced Therapeutic Interventions
Pre-requisite(s): PT 6250.

The purpose of this course is to prepare and equip physical therapists with advanced intervention skills to be used in the management of the musculoskeletal system. An emphasis will be placed on skill advancement for clinical decision-making, developing and progressing integrated treatment plans, and honing the motor skills necessary for the effective application of spinal and extremity manual therapy, soft tissue mobilization, trigger point dry needling, and therapeutic exercise. Skill laboratories will include a core set of manual therapy procedures (mobilization and manipulation), soft tissue mobilizations, dry needling procedures, therapeutic taping procedures, and therapeutic exercise as they relate to clinical case scenarios. Students will be expected to demonstrate proficiency in designing and demonstrating a complete treatment plan using sound clinical and evidence-based reasoning.

6402 Musculoskeletal Physical Therapy II - Spine
Pre-requisite(s): PT 6601

This course includes an introduction to the biomechanics, kinesiology, and specific terminology of spinal movement. The course emphasizes applying evidence-based practice in all

areas of spinal management, including the use of treatment-based classification systems to guide the evaluation and treatment of patients with mechanical neck and back pain. Where little evidence exists, a pragmatic, impairment-based approach integrating basic principles of biomechanics and pathokinesiology is used. A large portion of the course is devoted to carefully monitored laboratory palpation, examination, and intervention sessions. Evidence-based interventions such as patient education, therapeutic exercise, and manual therapy (muscle energy techniques, mobilization, and thrust manipulation) build upon the models previously presented in lower extremity courses.

6405 Neuromuscular Physical Therapy
Pre-requisite(s): Semester II courses.

This course presents the physical therapy examination, evaluation, and intervention of clients with neurological conditions, including, but not limited to: polyneuropathy, spinal cord injury, stroke, traumatic brain injury, multiple sclerosis, and Parkinson's disease. Therapeutic interventions for clients with neurological impairments and activity limitations to be discussed include but are not limited to: activities of daily living and functional training, assistive/adaptive devices, electrical stimulation, biofeedback, therapeutic exercise including PNF, facilitation/inhibition procedures, gait and balance training, orthoses, hydrotherapy, and patient and family education.

6410 Anatomy I

This course presents a discussion of the normal anatomy of epithelial, connective, muscle, and nervous tissues including osteology and arthrology. Also discussed are the peripheral and autonomic nervous systems. This course also consists of an in-depth study of the gluteal, thigh, knee, leg and foot regions including extensive dissection and prosection study of each region.

6503 Musculoskeletal Physical Therapy III - Upper Member
Pre-requisite(s): Semester II courses.

This course includes the biomechanics, kinesiology, and clinical disorders of the upper member. This course, coupled with the anatomy of the upper member, prepares students to competently examine a patient with upper extremity dysfunction, evaluate the information and establish a clinical diagnosis, and develop a physical therapy intervention plan. A large portion of the time is spent in the laboratory setting practicing palpation skills, the performance of clinical tests, and application of therapeutic treatment techniques that

include therapeutic exercise, manual therapy (muscle energy techniques, mobilization, and manipulation), and patient education.

6511 Anatomy II
Pre-requisite(s): PT 6410

This course provides an in-depth study of the spine, back, neck, thorax, abdomen, pelvis, shoulder, arm, elbow, forearm, wrist and hand. Also discussed are the anatomy of the face and temporomandibular joint.

6601 Musculoskeletal Physical Therapy I - Lower Member

This course includes the biomechanics, kinesiology, and clinical disorders of the lower member. This course, coupled with PT 6410 (Anatomy I), is designed to prepare students to competently examine a patient with lower extremity dysfunction, evaluate the information and establish a clinical diagnosis, and develop a physical therapy intervention plan. A large portion of the time will be spent in the laboratory setting practicing palpation skills, the performance of clinical tests, and application of therapeutic treatment techniques that include therapeutic exercise, manual therapy (muscle energy techniques, mobilization, and manipulation), and patient education.

6660 Physical Therapy Practice I
Pre-requisite(s): Semester I and II courses.

This course occurs at the conclusion of the second semester and consists of a full-time clinical experience at carefully selected medical treatment facilities. The emphasis of the experience is the management of patients in musculoskeletal, acute care, or in-patient orthopedic rehabilitation environments. A heavy emphasis of this clinical experience is student integration of fundamental physical therapy skills and management of the musculoskeletal system.

6V98 Physical Therapy Internship 0 to 36 sem. hrs.
Pre-requisite(s): Semester III courses and successful completion of comprehensive oral examinations.

This year-long internship is a directed clinical experience in various physical therapy settings. The internship experience is designed to broaden and increase the depth of clinical practice to bring the student to the level of an independently practicing Doctor of Physical Therapy. In order to achieve this level of experience, the internship will require both focused and non-focused experiences in a wide range of clinical practice environments.

PHYSICAL THERAPY (DOCTORAL) (PHT)

5191 Special Topics: Seminar I
Concentrated study of a particular topic in physical therapy.

5192 Special Topics: Seminar II
Concentrated study of a particular topic in physical therapy.

5193 Special Topics: Seminar III
Concentrated study of a particular topic in physical therapy.

5194 Special Topics: Seminar IV
Concentrated study of a particular topic in physical therapy.

5230 Essentials of Evidence-Based Practice and Clinical Research
The integration of best evidence and best practice concepts as well as advanced concepts, techniques, and technologies used for the scientific inquiry of applied clinical research. Emphasis is placed on refining research designs for individual projects and preparing a research protocol for approval by the Institutional Review Board.

5241 Differential Diagnosis in Orthopaedic Physical Therapy
Discussion of the subjective and objective findings of somatic and visceral disorders of the various systems with reference to their influence on physical therapy evaluation and rehabilitation or the need for referral to a physician.

5321 Aspects of Pharmacology and Nutrition in Physical Therapy
Role and relationship of nutrition and drug therapy in the treatment of specific populations treated by physical therapists; medical indications and potential effects of drugs on physical therapy treatments; nutritional principles related to exercise.

5323 Pathophysiology of Therapeutic Exercise
An in-depth exploration of exercise physiology and pathophysiology related to the cardiovascular, respiratory, and musculoskeletal systems. Emphasis will be placed on utilizing this information as a basis for evaluating patients with selected pathologies commonly seen in physical therapy and designing and implementing treatment programs.

5326 Functional Physical Therapy Anatomy and Biomechanics: Lower Quarter
Advanced dissection course in human gross anatomy with emphasis on the origin of function. Ligaments, bones, and bones are dissected, and their interrelationships emphasized especially with the lower extremities. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

5327 Functional Physical Therapy Anatomy and Biomechanics: Upper Quarter
Advanced dissection course in human gross anatomy with emphasis on the origin of function. Ligaments, bones, and muscles are dissected, and their interrelationships emphasized especially with the upper extremities. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

5331 Quantitative Evaluation
Assessment of the uses, advantages, validity, reliability, and sources of error of evaluation procedures in physical therapy.

5349 Radiology for Physical Therapists
Familiarizes the physical therapist with procedures used in radiology related to neuromuscular and musculoskeletal disorders. Emphasis placed on correlation of radiological findings with clinical signs and symptoms.

5382 Evaluation and Mobilization: Lower Quarter
Interpretation of basic science knowledge and development of clinical skills needed to complete a differential evaluation and proceed to effective treatment of lower quarter dysfunction.

5383 Evaluation and Mobilization: Upper Quarter
Interpretation of basic science knowledge and development of clinical skills needed to complete a differential evaluation and proceed to effective treatment of upper quarter dysfunction.

5392 Evaluation and Mobilization: Advanced Lower Quarter
Review of basic science knowledge and refinement of clinical skills needed to complete a differential evaluation and proceed to effective treatment of lower quarter dysfunction. Development of advanced clinical skills in treatment progression and application of combined movements, and grade V mobilization techniques (manipulation) which will increase efficiency, accuracy, and clinical outcomes.

5393 Evaluation and Mobilization: Advanced Upper Quarter
Review of basic science knowledge and refinement of clinical skills needed to complete a differential evaluation and proceed to effective treatment of upper quarter dysfunction. Development of advanced clinical skills in treatment progression and application of combined movements, and grade V mobilization techniques (manipulation) which will increase efficiency, accuracy, and clinical outcomes.

6101 Advanced Practicum in Physical Therapy
Supervised experience in a specialized area of interest such as administration, teaching, research, or advanced evaluation and treatment procedures.

6111 Advanced Orthopaedic/Sports Medicine and Surgery for Physical Therapists
Review of the orthopaedic surgeon's model of evaluation and treatment of musculoskeletal injuries. Update current orthopaedic and sports medicine surgical procedures and rehabilitation guidelines.

6150 Orthopaedic Lecture Series I
The Orthopaedic Lecture Series, developed for the West Point Joint & Soft Tissue Trauma Fellowship, provides lectures from some of the top orthopaedic and rehabilitation specialists in the country. The residents are invited to present their research at this forum, which prepares them to present in front of leading experts in orthopaedics and sports medicine.

6151 Orthopaedic Lecture Series II
A continuation of The Orthopaedic Lecture Series, developed for the West Point Joint and Soft Tissue Trauma Fellowship, which provides lectures from some of the top orthopaedic and rehabilitation specialists in the country. The residents are invited to present their research at this forum, which prepares them to present in front of leading experts in orthopaedics and sports medicine.

6152 Orthopaedic Lecture Series III
A continuation of courses PHT 6150 and 6151. The Orthopaedic Lecture Series, developed for the West Point Joint and Soft Tissue Trauma Fellowship, provides lectures from some of the top orthopaedic and rehabilitation specialists in the country. The residents are invited to present their research at this forum, which prepares them to present in front of leading experts in orthopaedics and sports medicine.

6191 Independent Study I
Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

6192 Independent Study II
Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

6193 Independent Study III
Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

6194 Independent Study IV
Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

6292 Special Topics: Seminar I
Concentrated study of a particular topic in sports medicine as it relates to the overall health and performance of an athlete/soldier.

6293 Special Topics: Seminar II
Concentrated study of a particular topic in sports medicine as it relates to the overall health and performance of an athlete/soldier.

6294 Differential Diagnosis in Sports Medicine
Discussion of subjective and objective findings of somatic and visceral disorders of the various systems with reference to their influence on physical therapy evaluation and rehabilitation or the need for referral to a physician.

6310 Soft Tissue and Bone Pathophysiology
Fundamental concepts of pathophysiological processes of injury and disease as related to causes, mechanisms, clinical manifestations, diagnostic techniques and management. Basic science of soft tissue and bone pathophysiology with emphasis on relationship to clinical/field evaluation, intervention and post-operative rehabilitation.

6320 Athletic Injuries I
Basic and advanced concepts for the recognition, examination, diagnosis, management and prevention of injuries. Injuries are presented in general terms as well as sport specific. Classroom and practical exposure to acute and chronic injuries, to include injury prevention are addressed.

6321 Athletic Injuries II
A continuation of PHT 6320 exposing the residents to advanced concepts for the recognition, examination, diagnosis, management and prevention of athletic injuries. Injuries are presented in general terms as well as sport specific. Classroom and practical exposure to acute and chronic injuries, to include injury prevention are addressed.

6332 Field Research in Physical Therapy
Designs, data collection techniques, and analyses for field research in physical therapy. Critical application of surveys, observational studies, case studies, and single case designs to clinical field problems in physical therapy. Emphasis is on the development of analytical skills requisite for field research in physical therapy.

6333 Advanced Professional Paper Project
This course focuses on methods of evaluating health status and outcomes of physical therapy intervention. Design, measurement and analysis are covered. This course is designed to guide the residents in conducting and completing original clinical research. Review of the literature of selected topics, pilot research studies, and the course instructor may approve independent research projects. Focus will be placed on assisting the residents to be participants in the research process.

6340 Functional Anatomy and Biomechanics I

Advanced course in functional anatomy and biomechanics of the upper/lower quarter and spine with emphasis on orthopedic and sports related trauma and pathology. The course will correlate basic science with clinical concepts for diagnosis, intervention and injury prevention. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

6341 Functional Anatomy and Biomechanics II

A continuation of PHT 6340. Advanced course in functional anatomy and biomechanics of the upper/lower quarter and spine with emphasis on orthopedic and sports related trauma and pathology. The course will correlate basic science with clinical concepts for diagnosis, intervention and injury prevention. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

6379 Advanced Radiology in Sports Medicine

Familiarize with procedures used in radiology related to neuromuscular and musculoskeletal disorders. Emphasis placed on correlation of radiological findings with clinical signs and symptoms.

6384 Independent Study

Concentrated study of a particular topic related to musculoskeletal pathology in sports medicine.

6387 Research and Statistics I

This course is designed to introduce residents to advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research, with the emphasis on sports medicine. Topics to be investigated include measurement theory and the scientific method, the research process, experimental design, hypothesis construction and testing, critical evaluation of physical therapy research, sampling, indices of validity and reliability, parametric and non-parametric statistics, data collection, and coding schemes. This course focuses on methods of evaluating health status and outcomes of physical therapy intervention. Design, measurement and analysis are covered. This course is also designed to guide the residents in conducting and completing original clinical research. Review of the literature of selected topics, pilot research studies, independent research projects may be approved by the course instructor. Focus will be placed on assisting the residents to be participants in the research process.

6388 Research and Statistics II

A continuation of PHT 6387 and is designed to further introduce residents to advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research, with the emphasis on sports medicine. Topics to be investigated include measurement theory and the scientific method, the research process, experimental design, hypothesis construction and testing, critical evaluation of physical therapy research, sampling, indices of validity and reliability, parametric and non-parametric statistics, data collection, and coding schemes. This course focuses on methods of evaluating health status and outcomes of physical therapy intervention. Design, measurement and analysis are covered. This course is also designed to guide the residents in conducting and completing original clinical research. Review of the literature topics, pilot research studies, independent research projects may be approved by the course instructor. Focus will be placed on assisting the residents to be participants in the research process. Dissemination of research findings in the form of manuscripts, poster and platform presentations will also be covered.

6389 Research and Statistics III

A continuation of PHT 6387 and 6388. This course focuses on the dissemination of research findings in the form of manuscripts, poster and platform presentations will also be covered.

6391 Clinical Residency I

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct patient, orthopaedic care.

6392 Clinical Residency II

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct patient, orthopaedic care.

6393 Clinical Residency III

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct patient, orthopaedic care.

6394 Clinical Residency IV

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct outpatient, orthopaedic care.

6395 Advanced Sports Medicine Practicum I

Field and courtside basic and advanced practical applications for the recognition, examination, diagnosis, and management of athletic injuries. Coverage for an athletic event may be with another faculty member or independently (usually not until third or fourth semesters). Athletic venues will consist of USMA intramural and inter-collegiate sports. Residents will also be sent on TDY to cover Army Sports at trial camps, Armed Forces, National and CISM competitions. TDYs will be in CONUS and OCONUS.

6396 Advanced Sports Medicine Practicum II

A continuation of PHT 6395 for field and courtside basic and advanced practical applications for the recognition, examination, diagnosis, and management of athletic injuries. Coverage for an athletic event may be with another faculty member or independently (usually not until third or fourth semesters). Athletic venues will consist of USMA intramural and inter-collegiate sports. Residents will also be sent on TDY to cover Army Sports at trial camps, Armed Forces, National and CISM competitions. TDYs will be in CONUS and OCONUS.

6397 Advanced Sports Medicine Practicum III

Continuation of PHT 6395 and 6396. Field and courtside basic and advanced practical applications for the recognition examination, diagnosis, and management of athletic injuries. Coverage for an athletic event may be with another faculty member or independently (usually not until third and fourth semesters). Athletic venues will consist of USMA intramural and inter-collegiate sports. Residents will also be sent on TDY to cover Army Sports at trial camps, Armed Forces, National and CISM competitions. TDYs will be in CONUS and OCONUS.

The Faculty

GRADUATE FACULTY

Members of the Graduate Faculty and their program affiliations are listed on the Graduate School website: www.baylor.edu/graduate/index.php?id=959408. The procedures for appointment of faculty to membership in the Graduate Faculty, as approved by the Graduate Council, are available on the Graduate School website.

The following rights and responsibilities are reserved to members of the Graduate Faculty: (1) to serve on standing committees of the Graduate School, (2) to chair dissertation or thesis committees, and (3) to serve as an official member of a dissertation or thesis committee.

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