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# 2010-2012 UNDERGRADUATE AND GRADUATE CATALOG

THE UNIVERSITY OF TEXAS AT TYLER www.uttyler.edu

VOLUME 27 FEBRUARY 2010 NUMBER 1

THE UNIVERSITY OF TEXAS AT TYLER (USPS 362850) is published and issued eight times per year, January, March, May, July, October, November, and twice in April by The University of Texas at Tyler, 3900 University Boulevard, Tyler, Texas 75799. Second Class postage paid, Tyler, Texas POSTMASTER: Send address changes to The University of Texas at Tyler, 3900 University Boulevard, Tyler, Texas 75799.

The University of Texas at Tyler is a four-year university providing appropriate educational services at the undergraduate and graduate level.

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# About the 2010-2012 Undergraduate and Graduate Catalog

The University of Texas at Tyler reserves the right to withdraw courses at any time, or change fees, tuition, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirements affecting students. Changes will become effective whenever the appropriate authorities so determine and may apply to both prospective students and those already enrolled. The provisions of the catalog do not constitute a contract, expressed or implied, between any applicant, student, or faculty member of The University of Texas System and The University of Texas at Tyler.

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# THE UNIVERSITY

### History

The University of Texas at Tyler was created as Tyler State College by the Texas Legislature in 1971 and was renamed Texas Eastern University four years later. The University became a campus of The University of Texas System in 1979, as a result of action by the 66th Texas Legislature. Originally established as an upper-level university, UT Tyler's mission was expanded in 1997 when the 75th Texas Legislature passed House Bill 1795 authorizing it to offer classes for freshman and sophomore students. Governor George W. Bush signed the bill into law on May 26, 1997.

### **Regional Accreditation**

The University of Texas at Tyler is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelors, master's, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of the University of Texas at Tyler.

### The University of Texas System

As a member institution of The University of Texas System, UT Tyler is subject to the *Rules and Regulations* of the Board of Regents of The University of Texas System.

### Mission

The University of Texas at Tyler is a comprehensive institution of higher education offering undergraduate and graduate degree programs as an institution of the renowned University of Texas System. The University of Texas at Tyler's vision is to be nationally recognized for its high quality education in the professions and in the humanities, arts and sciences, and for its distinctive core curriculum. Guided by an outstanding and supportive faculty, its graduates will understand and appreciate human diversity and the global nature of the new millennium. They will think critically, act with honesty and integrity, and demonstrate proficiency in leadership, communication skills, and the use of technology.

The University is committed to providing a setting for free inquiry and expects excellence in the teaching, research, artistic performances and professional public service provided by its faculty, staff and students. As a community of scholars, the University develops the individual's critical thinking skills, appreciation of the arts, humanities and sciences, international understanding for participation in the global society, professional knowledge and skills to enhance economic productivity, and commitment to lifelong learning.

Within an environment of academic freedom, students learn from faculty scholars who have nationally recognized expertise in the arts and sciences, and in such professions as engineering, public administration, education, business, health sciences, and technology. The faculty engages in research and creative activity, both to develop and maintain their own scholarly expertise and to extend human knowledge. The results of that research and other creative efforts are made available to students in the classroom and to the general public through publication, technology transfer, and public service activities. The institution also seeks to serve individuals who desire to enhance their professional development, broaden their perspectives, or enrich their lives.

### Location

The University of Texas at Tyler is the only public degree-granting university located in the East Texas Planning Region, an area of

approximately 750,000 population, which includes the greater Tyler/Longview metropolitan area. The natural beauty of this dynamic region is exemplified by UT Tyler's distinctive campus with its scenic lakes and wooded, rolling hills.

## **Off-Campus Locations**

The University of Texas offers selected courses and degree programs at the Longview University Center and on the UT Tyler Palestine campus. Courses are taught on both campuses using face-to-face instruction as well as interactive television.

#### Longview University Center

Located in northwest Longview on Highway 259, the Longview University Center (LUC) offers the people of East Texas an alternative to relocation or commuting long distances to obtain a degree. The LUC's programs and courses reflect those offered on the main UT Tyler campus with significant offerings in the field of business, nursing, education, and technology. Courses offered at LUC can be delivered face-to-face, via interactive television, web-based, or a combination of these formats. Upperdivision undergraduate and graduate courses are offered leading to a variety of baccalaureate and masters degrees. Freshman and sophomore courses are provided at LUC by Kilgore College.

#### Palestine

The University of Texas at Tyler, Palestine Campus is located at the corner of Loop 256 and Hwy 19 North in Palestine, Texas. The facility includes a small on-site library, a computer lab with online access to the Muntz Library, a nursing skills learning laboratory, student break area, and interactive television classrooms. Courses are brought to Palestine through a combination of interactive television and on-site faculty. The full BSN degree and MBA are available at the Palestine site. Also available are MSN courses as well as courses in history, anthropology, public administration, and criminal justice.

# Statement on Protection of Social Security Numbers

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. Employees who have access to confidential information may only use that information as is necessary and appropriate in the performance of their official duties and in compliance with applicable laws, regulations, and policies.

# Statement on Equal Opportunity

No person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program or activity sponsored or conducted by The University of Texas System or any of its component institutions on any basis prohibited by applicable law, including, but not limited to, race, color, age, national origin, religion, sex, veteran status, or disability.

This policy applies to all University administrators, faculty, staff, students, visitors and applicants for employment or admission.

# Academic Organization

The University of Texas at Tyler is organized into five academic colleges:

- College of Arts and Sciences College of Business and Technology
- College of Education and Psychology
- College of Engineering and Computer Science

College of Nursing and Health Sciences

### Bachelor's Degrees

The University of Texas at Tyler offers a wide variety of educational opportunities. The university offers bachelor's degrees with majors in the following areas:

ollowing areas:	
Program	Degree
Accounting	B.B.A.
Applied Arts and Sciences	B.A.A.S.
Art	B.A./B.F.A.
Biology	B.S.
Chemistry	B.S.
Civil Engineering	B. S
Computer Information Systems	B.S.
Computer Science	B.S.
Construction Management	B.S.
Criminal Justice	B.S.
Economics	B.A./B.S.
Electrical Engineering	B.S.
English	B.A.
Finance	B.B.A.
General Studies	B.G.S.
Health & Kinesiology	B.A.
Health Professions	B.S.
History	B.A./B.S.
Human Resource Development	B.S.
Industrial Technology	B.S.
Interdisciplinary Studies	B.S.
Journalism	B.A./B.S.
Kinesiology	B.S.
Management	B.B.A.
Marketing	B.B.A.
Mathematics	B.S.
Mechanical Engineering	B.S.
Music	B.M./B.A.
Nursing	B.S.N.
Political Science	B.A./B.S.
Psychology	B.A./B.S.
Sociology	B.A./B.S.
Spanish	B.A.
Speech Communication	B.A./B.S.
Technology	B.S.

# Master's Degrees

The University of Texas at Tyler offers master's degrees in the following areas:

Program	Degree
Art (Studio)	M.F.A.
Art	M.A.
Biology	M.S.
Business Administration	M.B.A.
Civil Engineering	M.S.C.E.
Clinical Exercise Physiology	M.S.
Clinical Psychology	M.S.
Communication	M.A.
Computer Science	M.S.
Counseling Psychology	M.A.
Counseling Psychology: Marriage and	M.A.
Family	
Criminal Justice	M.S.
Curriculum and Instruction	M.Ed.

Early Childhood Education	M.A./M.Ed.
Educational Leadership	M.Ed.
Electrical Engineering	M.E.E.
English	M.A.
Health and Kinesiology	M.Ed.
Health Studies	M.S.
History	M.A.
Human Resource Development	M.S.
Industrial Technology	M.S.
Interdisciplinary Studies	M.A./M.S.
Kinesiology	M.S.
Mathematics	M.S.
Mechanical Engineering	M.M.E.
Nursing	M.S.N.
Political Science	M.A.
Public Administration	M.P.A.
Reading	M.A./M.Ed.
School Counseling	M.A.
Sociology	M.S.
Special Education	M.A./M.Ed.
-	

# **Doctoral Degrees**

The University of Texas at Tyler offers doctoral degrees in the following areas:

Program	Degree
Human Resource Development	Ph.D.
Nursing	Ph.D.

## Accreditation and Memberships

#### Accredited by the following:

AACSB: The International Association for Management ABET: Engineering Accrediting Commission American Chemical Society Board of Nurse Examiners for the State of Texas Commission on Colleges of the Southern Association of Colleges and Schools (COC-SACS) Commission on Collegiate Nursing Education National Accrediting Agency for Clinical Laboratory Sciences Association of Technology, Management, and Applied Engineering National League for Nursing Accreditation Council Texas Education Agency

#### Membership in the following:

Alliance for Higher Education American Association of Colleges of Nursing American Association of Colleges of Teacher Education American Association of Collegiate Registrars and Admissions Officers American Association of Hispanics in Higher Education, Inc. American Association of Higher Education American Association of State Colleges and Universities American Association of University Women American Council on Education American Society for Engineering Education Association of Texas Colleges and Universities Conference of Southern Graduate Schools Council for Advancement and Support of Education Council for Higher Education Accreditation Council of Public University Presidents and Chancellors of Texas Forest Trails Consortium Institute of International Education International Association of University Presidents National Association of Industrial Technology National Association of Student Personnel Administrators National League for Nursing Council of Baccalaureate and Higher

#### THE UNIVERSITY

Degree Programs Southern Association of Collegiate Registrars and Admissions Officers Southern Council on Collegiate Education for Nursing Southern Regional Education Board Teacher Education Accreditation Council Texas Association of College and University Auditors Texas Association of Collegiate Registrars and Admissions Officers Texas Society of Allied Health Professionals

**Recognized by the following:** Texas Higher Education Coordinating Board Commission on Law Enforcement Officer Standards and Education Immigration and Naturalization Service, United States Department of Justice Veterans Administration

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# TUITION, CHARGES, AND FEES

Tuition charges at Texas state universities are established by state law. The 78th Texas Legislature (2003) allowed the Board of Regents of The University of Texas System to set designated tuition rates. The Texas Legislature does not set the specific amount for any particular student fee. Student fees assessed are authorized by state statute; however, the specific fee amounts and the determination to increase fees are made by the University administration and The University of Texas System Board of Regents.

Other expenses at The University of Texas at Tyler are fixed within statutory limitations by the Board of Regents. The cost to attend UT Tyler varies with the individual student. The university reserves the right to change tuition and fees in keeping with acts of the Texas Legislature and/or policies of the Board of Regents.

## Payment of Fees

Students are expected to pay all fees at the time of registration, have an approved financial aid program arranged by the Student Financial Aid Office prior to registration, or pay by installments as outlined below. Payment may be made by cash, check, credit card, or money order. Checks, money order, and credit card (VISA, Master Card, Discover, American Express) payments will be accepted subject to final collection by the university's bank. All tuition and fee payments by third parties, i.e. employers of students, clubs, service organizations and relatives of students, must be arranged by the Student Financial Aid Office prior to registration.

# Option to Pay Tuition and Fees by Installments

Students may make payment of tuition and fees for the fall and spring semesters through the following installment plan: one-half (1/2) of tuition and fees in advance of the beginning of the semester and two (2) one-fourth (1/4) payments prior to the end of the semester. This plan *is not* available for summer sessions.

A promissory note will be required and an incidental-handling fee of \$25 will be collected from students utilizing the installment plan. A late payment fee of \$25 will be assessed for each late payment.

- A. A student who fails to provide full payment of tuition and fees, including late fees assessed, when payments are due, is subject to one or more of the following actions:
- B. Bar from registration/deny readmission;
- C. Withholding of grades, degree and official transcript;
- D. Denial of course credit for work done that semester;
- E. Apply appropriate penalties as established by law;
- F. Referral of debt to collection agency.

# Residents of States other than Texas

All students must, upon application to the University, complete a certification of residency form.

While State requirements for establishing residency are complex and should be referred to in each particular circumstance, they generally require that an independent individual (18 years of age or older) establish a domicile in Texas and reside in Texas for a period of 12 months prior to the census date of the academic term in which the person is enrolled.

For minors and dependents, the parents or court-appointed legal guardian must have established a domicile and meet the above residency requirements. The minor or dependent must be eligible to be claimed by the parent or court-appointed legal guardian on their federal income tax. An individual may also be classified as a Texas resident if the individual (1) graduated from a public or private high school or received the equivalent of a high school diploma in Texas; (2) resided in Texas for at least three years as of the date the person graduated from high school or received the equivalent of a high school diploma; and (3) continuously resided in Texas for one year prior to the census date of the academic term in which the person is enrolled. Texas Education Code, 54.052.

Persons who are unable to meet the requirements above are classified as nonresidents.

The Office of Admissions is guided by the Texas Education Code, the *Rules and Regulations of the Board of Regents* and the *Rules and Regulations for Determining Residence Status* of the Texas Higher Education Coordinating Board in determining the resident status of students. The law governing residence for tuition purposes is not the same as the law governing residence for voting, vehicle registration, etc. Various circumstances can affect a student's residence status for tuition purposes: i.e. death or divorce of parents, custody of minor by court order, and active military duty of student or student's parents. A nonresident student classification is presumed correct as long as the individual continues as a student. However, the nonresident presumption is not conclusive, and it is possible that a nonresident student may be reclassified to resident student status after residing in Texas for at least 12 months and evidencing unequivocal intent to remain in the state.

# **Responsibility for Residency Classification**

The responsibility for registering under the proper residence is placed upon the student. It is the student's duty, at or before registration, if there is any possible question of the right to legal residence in Texas under the state law and the university rules, to raise the question with the Office of Admissions and have such questions settled prior to registration. Copies of *Rules and Regulations for Determining Residence Status* prepared by the Texas Higher Education Coordinating Board are available in the Office of Admissions. There can be no change of resident status except upon express authorization by the Director of Admissions. Attempts on the part of a nonresident student to evade the nonresident fee are a serious matter and may lead to disciplinary action, including expulsion and/or penalty as set forth in the law.

# Special Tuition Classifications for Nonresidents

Listed below are some exceptions which permit nonresidents to pay resident tuition rates. All special tuition exceptions must be approved through the Office of Student Financial Aid prior to the census date each term.

- A. A nonresident or foreign student employed at least half-time in a program-related position such as teaching assistant or a research assistant is entitled to pay the same tuition as a resident of Texas. The student's spouse and children may also be enrolled under this classification.
- B. A nonresident or foreign student holding a competitive academic scholarship of at least \$1,000 for the academic year in which he/she enrolled is entitled to pay the tuition required of Texas residents provided he/she competes with other students including Texas residents for the scholarship and the scholarship is awarded by a scholarship committee recognized by UT Tyler and approved by the Coordinating Board.
- C. Usually, a member of the United States military forces is entitled to pay the resident tuition fee for self or dependents. The student must submit appropriate evidence including a statement from his/her commanding officer stating that the member is currently on permanent active duty assignment within the state of Texas.
- D. Students who reside in Arkansas, Louisiana, and Oklahoma may be charged the statutory rate for Texas residents, plus \$30.00 per semester credit hour. Students must demonstrate residency by providing a current driver's license or copies of their state tax returns for the current year. This must be presented each semester prior to payment of tuition and fees.

The *Texas Education Code*, §54.058 *et seq.* includes other exceptions not reprinted in the catalog. For more information consult the cited statutes, the Office of Student Financial Aid, or refer to the Coordinating Board's website, *http://www.collegefortexans.com*.

# **Tuition and Fee Exemptions**

Certain students are exempt from paying tuition and some of the required fees by state law. Specific eligibility requirements under these provisions can be obtained from the Student Financial Aid Office. Applications for exemptions must be completed prior to the census date for the semester. Exempt classifications include the following:

- A. Residents of the State of Texas who were classified as Prisoners of War on or after January 1, 1999 and were Texas residents at the time they entered the armed services are exempt from tuition, required fees and other expenses related to attending the university.
- B. Residents of the State of Texas who are children of Prisoners of War or Persons Missing in Action are exempt from paying all tuition and required fees.
- C. Blind and/or deaf students eligible for the rehabilitation services of the State Commission for the Blind and/or the Division of Vocational Rehabilitation of the Texas Education Agency are exempt from all tuition and fees.
- D. Minor children and surviving spouses of firemen; peace officers, municipal, county or state peace officer or game warden disabled or killed-on-duty may be exempt from paying tuition and fees, and other expenses related to attending the university.
- E. Hazelwood Act benefits:
  - Veterans (and dependents of veterans who died in active service) of World War I, World War II, Korean War and certain other qualified veterans who have no remaining veterans' administration educational benefits may be eligible for Hazelwood Act benefits for up to 150 credit hours if residents of Texas at the time they entered the armed forces, resided in Texas 12 months prior to enrolling in a Texas education institution and received an honorable discharge from the service.
  - 2. Orphans of members of the US armed forces, Texas National Guard and the Texas Air National Guard killed since January 1, 1946, while on active duty either in the service of their state or the United States, may also be eligible under this provision. In order to qualify for benefits under the Hazelwood Act, the veteran must file with the Office of Student Financial Aid prior to registration each semester.
  - 3. Children of members of the armed forces, the Texas National Guard, or the Texas Air National Guard who became totally disabled as a result of a service-related injury.
- F. Certain dependent children or step children of a member of the U.S. Armed Forces may qualify for an exemption of resident tuition only during the semester in which the member of the armed forces is deployed on active duty for the purpose of engaging in a combative military operation outside the United States. Deployment documentation must be provided to the Financial Aid Office.
- G. Residents of the State of Texas who are 65 years of age or older may audit courses without paying the regular audit fees, providing class space is available.
- H. Residents of the State of Texas who are 65 years of age or older may enroll in the fall, spring, and summer semesters and receive an exemption for the cost of tuition for up to six hours each semester.
- I. Residents of the State of Texas who are School employees who have worked as an educational aide for at least one school year within the last five years, are enrolled in teacher certification courses and establishes financial need may be eligible for exemption of tuition and certain fees.
- J. Individuals who were in foster care or other residential care under the conservatorship of the Department of Protective and Regulatory Services should contact Office of Student Financial Aid to determine if they qualify for tuition and fees exemption.

- K. Police officers who are Texas residents and have become permanently disabled as a result of an injury suffered during the performance of a duty as a peace officer of this state or a political subdivision of this state, and are unable to continue employment as a peace officer because of the disability may be eligible for exemption of tuition for undergraduate courses and required fees.
- L. Certain members of the Texas National Guard may be exempt from tuition and mandatory fee for up to 12 semester credit hours.
- M. A student who has a voucher(s) from the Veterans Commission in \$25 increments for having played "taps" at military honors funerals.
- N. A registered nurse serving as a clinical preceptor for undergraduates in a professional nursing program may be eligible for a \$500 tuition exemption. The exemption may also apply to the nurse's children.
- O. The highest ranking high school graduate is exempt from tuition for the first two semesters following graduation.
- P. Adopted children who were formerly in foster or other residential care are exempt from tuition and fees.
- Q. Children of certain faculty or staff members employed by the university's nursing program are exempt from tuition.
- R. Certain students who completed high school early or with at least 30 college credit hours may be eligible for tuition and fee exemptions ranging from \$500 to \$2000.

# Tuition Rebate for Qualified Students

A qualified student is eligible to apply for a rebate of a portion of the undergraduate tuition the student has paid, in accordance with Section 54.0065 of the Texas Education Code. The 1997 Texas Legislature approved a tuition rebate plan for students receiving their first baccalaureate degree. For a student to be eligible for a rebate of a portion of the undergraduate tuition the student has paid: they must be Texas residents having enrolled for the first time in an institution of higher education in the fall of 1997 or later; attempted all work at a Texas public institution of higher education and been entitled to pay resident tuition at all times while pursuing the degree and must not have attempted more than three hours in excess of the minimum required for the degree, including transfer credits and course credit earned exclusively by examination. Only the number of semester credit hours is treated as hours attempted

Rebate Application forms are available at the Office of the Registrar, ADM 221. Eligible students must apply for this rebate prior to graduation.

# Schedule of Refunds

If a student formally drops one or more courses through the Registrar's Office, the university will refund applicable tuition and fees collected for courses from which a student drops within the first 12 days of a fall or spring semester, within the first four days of a summer term, or within the first day of a mini session, provided the student remains enrolled at the institution for that semester or term. Refunds for courses dropped by a student who later in the semester or term withdraws from the institution will be calculated according to the following schedule:

Regular semester, Long Summer	
prior to first class day	100%
during first five class days	80%
during second five class days	70%
during third five class days	50%
during fourth five class days	25%
after fourth five class day	no refund
Summer I and II semester	
prior to first class day	100%
during the first, second, or third class day	80%
during fourth, fifth, or sixth class day	50%
seventh class day and thereafter	no refund

\*Less \$15 matriculation fee.

For refunds, the effective date of withdrawal will be the date when the withdrawal is officially completed and recorded by the Registrar's Office. If a scheduled course of instruction is cancelled by the university, all fees will be refunded. No refunds will be made unless applied for in the same school year as withdrawal. Immediate refund will not be made to students who withdraw during the refund period. Normally, refunds will be disbursed according to the refund preference indicated through the SwoopOne Card within 30 days from the last day of scheduled refunds.

All policies regarding the payment or refunding of tuition, fees, and charges comply with applicable statutes and are approved by the Board of Regents of The University of Texas System. If a person desires clarification of any matter relating to payment or refund of such charges, or believes special circumstances warrant exceptions to the published policy, the Office of Business Affairs at UT Tyler should be contacted.

# **Tuition and Mandatory Fees**

Students pay a statutory tuition rate of \$50 per semester credit hour for Texas Residents (*See below*, Excess Hours) and \$325 per semester credit hour for Non-Texas Residents. Students also pay a designated tuition of \$105 per undergraduate credit hour or \$166 per graduate semester credit hour; and \$210 per doctoral semester credit hour.

State law requires each public university to set aside a certain portion of designated tuition payments made by resident undergraduate students to provide financial assistance for students enrolled at the university. Of the \$105 per credit hour of designated tuition charged, the University "sets aside" \$11.80 to support financial assistance. (See, Texas Education Code, Sect. 56.012)

Tuition and fees are subject to change by legislative or regental action and become effective on the date enacted. The Texas Legislature does not set the specific amount for any particular student fee. The student fees assessed above are authorized by state statute; however, the specific fee amounts and the determination to increase fees are made by the university administration and The University of Texas System Board of Regents. Tuition and fee updates can be found at

http://www.uttyler.edu/catalog/tuition/index.html.

In addition all students are required to pay a set of mandatory fees, as set out below.

Automated Service Fee	\$30/semester

To defray costs of the automated student information system, software provided for student use, and library services.

 Basic Computer Access Fee
 \$125/semester

 To defray costs of providing campus computing services in support of academic programs.

#### Student Service Fee

\$11/credit hour up to \$150/semester

To provide a well-rounded program of activities and services for students of the university. Refunds of these fees are on the same basis as tuition as described under schedule of refunds.

Fine and Perf	orming Arts Fee	
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#### 30/regular sem.; \$15/summer

To offset the maintenance and operation of the R. Don Cowan Fine and Performing Arts Center.

#### Intercollegiate Athletics Fee

\$12/credit hour (min. \$72max. \$180)

To maintain the intercollegiate athletics programs. Maximum \$180 per semester.

Recreational Facility Fee	\$40/regular sem. and long summer; \$15/summer I and II
Τ	1

To operate and maintain student recreational facilities or programs.

International Education Fee					\$4/semester

To support various international study and travel programs.

#### Medical Services Fee

\$35/regular sem. and long summer; \$15/summer I and II

To help operate and maintain the student health clinic.

Descale Ess	¢ 5 /
Records Fee	\$5/semester

To defray cost of providing UT Tyler transcripts and enrollment certifications. There is a limit of five transcripts per day at no charge and a maximum of fifty transcripts at no charge.

#### Student Union Fee

\$100/regular sem and long summer; \$50 /summer I and II

Provides revenue for financing, constructing, operating, maintaining, renovating, improving, or equipping a student union building.

# Other Fees and Charges

For a complete list of other fees and charges, including individual course fees, please visit the Student Business Services website at http://www.uttyler.edu/catalog/tuition/index.html http://www.uttyler.edu/catalog/tuition/index.html

# Tuition and Fees for Excess Hours

As authorized by state law, a student who pays resident tuition rates and who attempts hours that exceed a designated limit will be charged nonresident tuition rates. The designated limit for a student who initially enrolled in an institution of higher education in Fall 1999 through Summer 2006 is 45 credit hours beyond the required hours for the student's declared degree program. The designated limit for a student who initially enrolled in an institution of higher education in Fall 2006 or later is 30 credit hours beyond the hours required for completion of the student's degree program.

The following semester credit hours are not included in the calculation:

- semester credit hours earned by the student 10 or more years before the date the student begins the new degree program under the Academic Fresh Start Program of the Texas Education Code, § 51.931;
- 2. hours earned by the student before receiving a baccalaureate degree that has previously been awarded to the student;
- 3. hours earned by the student by examination or similar method without registering for a course
- 4. hours from remedial and developmental courses, workforce education courses, or other courses that would not generate academic credit that could be applied to a degree at the institution if the course work is within the 27-hour limit at two-year colleges and the 18-hour limit at general academic institutions;
- 5. hours earned by the student at a private institution or an out-of-state institution; and
- 6. hours not eligible for formula funding.

For more information contact the Registrar Office

#### Doctoral Excess Hours (99-hour Rule)

A resident doctoral student who has a total of 100 or more semester credit hours of doctoral work at an institution of higher education is required to pay nonresident doctoral tuition rates. Contact the Registrar's Office for more information.

# UNDERGRADUATE ADMISSIONS AND GRADUATION

The University of Texas at Tyler offers baccalaureate and master's degree programs and strives to meet the educational needs of high school graduates, transfer students from community colleges and other universities, and students seeking graduate degrees. Admission requirements for graduate programs are defined in the Graduate Policies and Programs section of this catalog.

## Undergraduate Admission Requirements

- A. All applicants must complete an Application for Admission on-line by visiting: http://www.uttyler.edu/admissions or by going to http://www.applytexas.org by the posted deadline for the intended semester of enrollment.
- B. Applicants must submit an official updated transcript from each college or university attended, and a \$25 application fee.
- C. Applicants will not be subject to discrimination on any basis prohibited by law including but not limited to race, color, age, national origin, religion, gender, veteran status, or disability.

### Freshman Admission

Eligibility for admission as a freshman is determined primarily on the basis of three predictors of academic success: high school preparation, rank in high school class, and SAT (ACT) score. Additional consideration for admission will be based on an evaluation of the additional criteria as described below.

### **High School Preparation**

To be eligible for admission to the university as a freshman an applicant must be a high school graduate or equivalent. A high school record that demonstrates achievement in the most challenging academic course work available is the best single predictor of academic success. Beginning freshmen must submit an official high school transcript before classes begin in order to verify graduation and completion of required courses.

The minimum high school units required for admission include:

A. Language Arts

Required: Four units of English

B. Science

Required: Four units of science to include at least one unit of Chemistry or Physics

C. Foreign Language

Required: Two units in a single language effective fall semester 2001.

D. Mathematics

Required: Four units at the level of Algebra I or higher, e.g., algebra, geometry, elementary analysis, probability and statistics, solid geometry, calculus with analytical geometry. Informal geometry and pre-algebra will not fulfill this requirement.

Strongly recommended: Students planning to enter scientific, engineering and similar technical fields are advised to take at least four units of math in preparation for entering the first university calculus course in their first semester at the university.

E. Social Studies

Required: Three units

F. Electives

Required: Additional courses in the areas above and/or in fine arts and/or computer science to satisfy high school graduation requirements

#### High School Rank in Class and SAT (ACT) Score

- A. An applicant who graduates from an accredited high school in one of the two years preceding the academic year for which the applicant is applying for admission and who has a grade point average in the top 10 percent of the applicant's high school graduating class will be admitted automatically (subject to applicable enrollment limit). SAT (ACT) scores must be submitted.
- B. An applicant who does not qualify for admission under item A but meets the following criteria also qualifies for regular admission:

High School	Minimum	Minimum	Minimum
Rank in Class	Total SAT	Total SAT	Total ACT
		w/ writing sect.	
Тор 25%	950	1410	20
Second 25%	1000	1500	21
Third 25%	1050	1530	22
Fourth 25%	1080	1590	23

#### Additional Criteria

In addition to the current university requirements for admission, applicants must also have either: successfully completed the curriculum requirements for the recommended or advanced high school program or its equivalent; or satisfied ACT's College Readiness Benchmarks on the ACT assessment application to the applicant, or earned on the SAT assessment a score of at least 1500 out of 2400 or the equivalent.

The above requirement may be satisfied if the applicants official high school transcript or diploma states that the applicant completed the portion of the recommended or advanced curriculum or its equivalent that was available to the applicant, but was unable to complete the remainder of the curriculum solely because courses necessary to complete the remainder were unavailable to the applicant at the appropriate times in the applicant's high school career as a result of course scheduling, lack of enrollment capacity, or another cause not within the applicant's control.

An applicant may be given additional consideration based upon an evaluation of the individuals' involvement and level of responsibility in extracurricular activities; involvement in responsible non-academic affairs while attending high school, including employment and family responsibilities; status as a first general college student; English not first language; and socioeconomic background.

### **Transfer Students**

Transfer students having fewer than 30 semester credit hours must meet the freshmen admission requirements as specified above.

Transfer students having successfully completed 30 semester hours or more at a regionally accredited institution must have earned a minimum grade point average of 2.0 (on a 4.00 scale) on all college/university coursework attempted. Transfer students who do not meet the minimal admission requirements may petition the Associate Vice President for Enrollment Management for special admission.

Students seeking special certification courses may be admitted to complete the required certification courses.

Persons who have special ability, experience, or other circumstances to demonstrate readiness for college level work may petition for admission. In addition, consideration will be given to the individual's involvement and level of responsibility in extracurricular activities and involvement in responsible, non-academic affairs including employment and family responsibilities; status as a first generation college student; English not first language; and socioeconomic background. Petitions for special admission to the university must receive approval from the Admissions Committee prior to registration.

UT Tyler strives to provide guidance for prospective transfer students by outreach through community college visits, individual counseling, transfer credit evaluations, on-campus recruitment events, and orientation. UT Tyler offers transfer students incentives such as scholarship opportunities to those who qualify, and application fee waivers for those who attend Transfer Orientation. Transfer scholarship awards are renewable for two years and have the effect of waiving out-of-state tuition. Additional information regarding admission requirements, scholarship information, recommended degree plans, housing, student life, and athletics are all included on the UT Tyler web site: www.uttyler.edu.

### Readmission

If a student has not attended UT Tyler during the past academic year, the student will need to submit a completed application, official transcripts from any institution attended since leaving UT Tyler, and a \$25 application fee. Readmitted students come under the catalog in effect at the time of readmission. Students who withdraw from the university to perform active military service (not including Texas National Guard training exercises) will not have to reapply for admission but will be readmitted upon a request made within one year of being released from active military services and may be eligible for the same financial assistance provided before the student's withdrawal. See *Texas Education Code*, Section 51.9242.

### **Transient Admission**

Undergraduate students pursuing degrees at other colleges and universities who wish to take courses at the University may be admitted as transient students. The transient student application and approval form are available at the Office of Admissions, ADM 202 or the website at http://www.uttyler.edu/admissions http://www.uttyler.edu/admissions

A transient student who later wishes to be admitted to the University on a regular basis must apply for admission as a transfer student.

Students who attend the University as transient students and then are admitted on a regular basis are immediately subject to the University's academic regulations. Specifically, students will be placed on academic probation upon enrollment if their grade point average for work undertaken at the University as a transient student is below a 2.00.

### International Admissions

In addition to the undergraduate admission requirements stated previously, applicants from countries other than the U.S. are subject to the following:

- A. An official English translation of the transcripts must be included if the academic transcripts are in a language other than English.
- B. Results of the Test of English as a Foreign Language (TOEFL) must be submitted.

A minimum score for admission for the undergraduate student is 550 (213 on the computer version). Information concerning the TOEFL may be obtained by writing to TOEFL, P.O. Box 615, Princeton, New Jersey 08540 U.S.A. and at www.toefl.org.

- C. An affidavit of support is required indicating the source of funds being made available to the student. The affidavit of support must indicate the amount of money being provided in U.S. Dollars and the length of time the funds will be made available.
- D. Holders of student (F-1) visas must be classified as full-time students. For international students, a full-time load is 12 semester credit hours for undergraduates.
- E. Filing deadlines for applications and the required documents to be received in the Office of Admissions are as follows: June1 for the fall semester, November1 for the spring semester, and March 1 for the summer terms.
- F. Before registration the Office of Admissions must have a copy of a current passport and visa.

- G. International students holding non-immigrant visas are required to maintain approved comprehensive health insurance or coverage while enrolled at UT Tyler. A health insurance fee will be assessed at the time of enrollment. The health insurance fee will be in the amount of the premium approved for the University of Texas System Student Health Insurance Plan for the actual cost of the insurance and may not be paid through a university funded short-term loan or an installment plan. This policy applies unless the student provides evidence of coverage under an alternative plan as approved by the UT Board of Regents prior to enrollment.
- H. Submit the International Application Fee. A nonrefundable application fee of U.S. \$50.00, payable by cashier's check or money order, is required of all international students applying for admission to The University of Texas at Tyler.

### Transient Admission at other Institutions

After the student is admitted to UT Tyler, he or she should not register for any course(s) at any other institution until approval is granted. Approval by the student's Advisor, Department Chair, Dean and the University Registrar is required to assure that the courses taken at another institution will count toward the student's degree. A student should not register at another institution until the request for undergraduate transient admission form has been completed and approved. Forms for this purpose are available at http://www.uttyler.edu/registrar/transientstudents.htm or in the Office of the Registrar, ADM 221.

### Academic Fresh Start

An applicant for admission who is a Texas resident may seek to enter this institution pursuant to the "academic fresh start" statute, Texas Education Code, §51.931. If the applicant informs the Office of Admissions in writing of the election, the institution, for admissions purposes, will not consider academic course credits or grades earned by the applicant 10 or more years prior to the starting date of the semester in which the applicant seeks to enroll. An applicant who makes the election to apply under this statute may not receive any course credit for courses taken 10 or more years prior to enrollment under academic fresh start.

# Texas Success Initiative (TSI)

The Texas Higher Education Assessment (THEA) test is designed to determine whether students possess the basic skills in reading, writing, and mathematics, necessary for university courses. In accordance with Texas Education Code, Section 51.3062, all students must take the THEA test (or an approved alternative assessment test) prior to enrolling at the University.

The following students are exempt from taking the test:

- For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards: (A) ACT: composite score of 23 with a minimum of 19 on both the English and the mathematics tests; (B) Scholastic Assessment Test (SAT): a combined verbal and mathematics score of 1070 with a minimum of 500 on both the verbal and the mathematics tests; or
- 2. For a period of three (3) years from the date of testing, a student with a TAKS math score of at least 2200 is exempt from the math requirement. A student with a TAKS English/Language Arts score of at least 2200 and an essay score of at least 3 is exempt from the reading and writing requirements.
- 3. A student who has graduated with an associate or baccalaureate degree from an institution of higher education.
- 4. A student who transfers to an institution from a private or independent institution of higher education or an accredited out-of-state institution of higher education and who has satisfactorily completed college-level coursework as determined by the receiving institution.
- 5. A student who has previously attended any institution and has been determined to have met readiness standards by that institution.

- 6. A student who is enrolled in a certificate program of one year or less (Level-One certificates, 42 or fewer semester credit hours or the equivalent) at a public junior college, a public technical institute, or a public state college.
- 7. A student who is serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States and has been serving for at least three years preceding enrollment.
- 8. A student who on or after August 1, 1990, was honorably discharged, retired, or released from active duty as a member of the armed forces of the United States or the Texas National Guard or service as a member of a reserve component of the armed forces of the United States.
- 9. A non-degree-seeking or non-certificate-seeking student.

### **Registering for Beginning Mathematics Courses**

Students needing to take mathematics are placed into the appropriate courses through the use of test scores (THEA, ACT, SAT), departmental tests, or successful completion of certain courses. The chart below gives the minimum requirements to enroll in the required mathematics courses.

-	College Algebra or Equivalent	Calculus I
Test/Course	MATH 1314, 1324, 1332*	MATH 2413**
	Min. Score/grade	Min. Score/grade
THEA Math	270	
SAT Math	500-674	675
ACT Math	21	27
MATH 0303	"C"	
MATH 1316 or		"C"
MATH 241 or		"pass with 70%"
Trigonometry		
Test		

\*Students who do not have THEA, SAT or ACT math scores will be required to take the pre-algebra test administered by the Mathematics Department. Students who fail the test will be required to enroll developmental math courses elsewhere

\*\*Students enrolling in Calculus I must have the minimum SAT or ACT math scores noted above or one of the following: "C" or better in MATH 1316 or MATH 2412, or pass the departmental trigonometry test. It is assumed that all students enrolling in Calculus I are proficient in algebra. Students who are not proficient in algebra are advised to enroll in MATH 1314: College Algebra and MATH 1316: Trigonometry prior to enrolling in Calculus I.

### Immunization Requirements

In accordance with State law, the following immunizations are required for all students enrolled in health related courses which will involve direct patient contact in medical or dental care facilities or who come in contact with human or animal biological fluids or tissue.\* Students for whom these immunizations are not required are strongly urged to obtain these immunizations for their own protection.

- **Measles:** proof of two doses of measles vaccine administered on or after the first birthday and at least 30 days apart or proof of immunity.
- **Mumps:** proof of one dose of mumps vaccine administered on or after the first birthday or proof of immunity.
- **Rubella:** proof of one dose administered on or after the first birthday or proof of immunity.
- Tetanus/diphtheria: proof of one "booster" dose of tetanus/diphtheria (within 10 years).
- **Hepatitis B virus (HBV):** proof of serologic immunity to HBV or certification of immunization with a complete series of Hepatitis B vaccine. Students will be required to present a letter or other suitable written certification.

\* Note: Certain exemptions are allowed from the immunization requirement; students should contact the Office of Student Services for information.

Students enrolled at University of Texas institutions will assume the full cost of the immunizations.

Students may obtain information regarding the consequences of not being current on immunization for certain diseases; the age groups most vulnerable to these vaccine preventable diseases; and local providers of immunization services from the Office of Student Services.

## Transfer Credit

Credit earned at other regionally accredited colleges or universities may be transferred by students presenting official transcripts describing such credit. Courses are acceptable for transfer at the level at which these courses were classified by the institution granting the credit.

Only courses in which a student has earned a grade equivalent of "C" or better will be acceptable for transfer. The only exception will be if a student transfers to UT Tyler core complete from another college or university, and the transferring institution recognized a "D" as satisfying its Core Curriculum requirements.

After enrolling at UT Tyler, students who wish to enroll in courses at another university or college must have prior approval. For specific procedures review the Undergraduate Transient Admission section of this catalog.

### Texas Common Course Numbering System

The Texas Common Course Numbering System (TCCNS) is designed to aid students in the transfer of freshman and sophomore academic credit courses from colleges and universities throughout Texas. The University of Texas at Tyler has joined this consortium approved by the Texas Association of Collegiate Registrars and Admissions Officers and the Texas Higher Education Coordinating Board. The system ensures that if the student takes courses that the receiving institution designates as common, then the courses will be accepted in transfer at other Texas public colleges and universities.

### College Credit By Examination

Credit by examination may be established through testing programs such as the Advanced Placement Program (AP), the College Level Examination Program (CLEP), and International Baccalaureate. Guidelines for credit by CLEP, AP, and IB examinations are available in the Office the Registrar. CLEP, AP, and IB credit received from a prior college/university will transfer as credit was awarded.

# Transfer Disputes for Lower-Division Courses from Texas Institutions

The following procedures shall be followed by public institutions of higher education in the resolution of credit transfer disputes involving lower-division courses:

- A. The receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied
- B. Institutional representatives and the student shall attempt to resolve the transfer of the course credit in accordance with the Texas Higher Education Coordinating Board rules and/or guidelines
- C. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student receives written notice of denial, the institution that denies the transfer shall notify the Commissioner of Higher Education of the denial and the reason for the denial

The Commissioner or the Commissioner's designee shall make the final determination concerning the dispute of the transfer of course credit and will give written notice of the determination to the student and each institution.

### **Correspondence Credit**

A student may not apply more than six semester hours of upper-division correspondence credit toward a degree. Prior approval to include these hours in a degree plan must be secured from the student's academic advisor, department chair, and dean. To secure this approval, follow the procedures outlined in the undergraduate transient approval section of this catalog. To transfer, courses must be awarded a letter grade of A, B, or C. Courses taken for CR must be approved prior to enrollment.

### Classification

Students are assigned a classification at the beginning of each semester based on the total number of semester hours accumulated, including transfer credits and degrees earned.

A student who has been admitted to a degree program is said to be a regular or a matriculated student. A student holding a baccalaureate or higher degree is classified as a post-baccalaureate student. All other students are classified as undergraduate students.

Student classifications and the basis for each are as follows:

Classification	Criterion
Freshman	0-29 semester hours
Sophomore	30-59 semester hours
Junior	60-89 semester hours
Senior	90 or more semester hours
Post-baccalaureate	Holding a bachelor's (or higher) degree
Graduate	Holding a bachelor's (or higher) degree and
	being admitted to a graduate program

# Visiting UT System Students Program

The Visiting U.T. System Students Program is designed to allow upperlevel and graduate or professional students enrolled in an institution of the UT System to take courses or engage in research at another institution within the UT System during a regular semester or summer session. Each campus must appoint an individual designated to coordinate the visiting student program at both the home and host institution. Every campus has the responsibility to determine the academic qualifications necessary for their students to participate in the visiting program. Approval of a student's proposed visitation will be contingent on space and desired courses being readily available in the proposed visitation program and, for participation in a research laboratory, on approval of the director of the laboratory (*Rules and Regulations* of the Board of Regents, Rule 50701).

### University Honors Program

The University Honors Program provides intellectually enriching opportunities for academically talented and motivated freshmen at UT Tyler. The emphasis is on small classes, enriched coursework, independent learning, speaking and writing, research within the discipline, sharing ideas, and discovering new worlds beyond the campus.

#### Eligibility

The Honors Program is open to all majors. Freshmen should have attained a high school gpa of at least 3.5 and an ACT composite score of at least 28 or an SAT composite score of at least 1860.

Students enter the Honors Program in the fall semester of their first year. Applications must be on file by May 1 for entrance the following fall; late applications are considered on a space-available basis. The application for admission to the Honors Program is separate from the application for admission to the university, and must be submitted separately to the Honors Program Office. Contact Dr. Paul Streufert, Director of the University Honors Program, at 903-565-5823 or e-mail: pstreufert@uttyler.edu

#### Honors Endowed Scholarship

Students who meet the entrance requirements for the University Honors Program as first-semester freshmen are eligible to receive an Honors Endowed Scholarship. Honors students will receive an additional scholarship of \$1,000- \$7,000 per year for four years as long as they remain in good standing in the Honors Program. The application to the Honors Program serves as application for the Honors Endowed Scholarship. No additional scholarship application is required.

### Honors Curriculum

The curriculum of the UT Tyler Honors Program consists of 12 hours of honors courses for the university's core curriculum, 6 hours of honors in the major, and an honors thesis. To be eligible for special Honors designation at graduation, you must complete the 24-hour Honors Program and attend all Honors Colloquia, as described below.

#### Honors Colloquium

One of the hallmarks of the Honors Program is the Honors Colloquium, which is an opportunity for students to meet and talk with scholars, as well as local, regional, and national leaders about topics that relate to each semester's courses. The Colloquium may also include museum trips, service projects, productions, and other leadership and learning activities

#### Honors in the Core (12 hrs)

Honors students must enroll in one Honors Seminar (HNRS) in each of the student's first 4 semesters. These 12 hours of Honors Seminars will replace 12 hours of standard Core Curriculum. Students will be required to meet the remaining 32 hours of the Core Curriculum as determined by the Honors director.

#### Honors in the Major (6 hrs.)

Each semester of the junior year, students will enroll in a contract course in their major in which they will complete an additional research project. Contract courses will be chosen in consultation with the Honors director.

#### Honors Thesis (6 hrs.)

In the senior year, students will complete an honors thesis in the major. The thesis will be written under the guidance of a faculty member in the student's discipline with the approval of the Honors director.

### **Articulation Agreements**

Articulation Agreements, which are designed to offer students continuity when transferring from a community college to a baccalaureate degree, have been signed between UT Tyler and several regional community colleges. Please contact the Office of Advising for further information.

# General Baccalaureate Degree Requirements

Each candidate for the baccalaureate degree must fulfill the following requirements:

- A. File an approved Patriot Advising Report (PAR) with the academic department and complete those requirements.
- B. Complete Core Curriculum requirements with a grade of "C" or better in each course.
- C. Complete a minimum of 42 upper-division semester credit hours (Refer to your major for any specific additional requirements.)
- D. Complete at least 25% of the hours required for the degree at UT Tyler
- E. Complete at least 24 of the last 30 upper-division credit hours in residence at UT Tyler.
- F. Complete a minimum of 6 upper-division hours in the major field of study at U.T. Tyler. (colleges or departments may establish more stringent requirements).
- G. Complete a minimum of 120 hours with a 2.0 grade point average.
- H. Maintain a 2.0 overall grade point average.
- I. File for graduation at least one semester before graduation. See Graduation Guidelines below.

- Theu	Hrs.	
Communication	6	ENGL 1301, 1302
Mathematics	6	MATH 1314, 1316, 1324, 1325, 1332, 1333, 1342, 1350, 1351, 2413, 2414 (please refer to course section of catalog for prerequisites, conditions, and restrictions)
Natural Sciences	8	BIOL 1306/1106, 1307/1107; CHEM 1305/1105, 1307/1107; CHEM 1311/1111, 1312/1112; PHYS 1301/1101, 1302/1102; PHYS 2325/2125. 2326/2126
Humanities		
World or European Literature	3	ENGL 2322, 2323, 2362, 2363
Humanities	3	PHIL 1301, 2303*, 2306; ENGL 2310, 2350; SPCM 1315
Visual and Performing Arts	3	MUSI 1306, 2301, 2308; THTR 1301, 1356; ART 1301, 2303, 2304
History	6	HIST 1301, 1302
Political Science	6	POLS 2305, 2306
Social and Behavioral Science	3	ANTH 2346; ECON 1301, 2301, 2302; GEOG 1313; HIST 2321, 2322; JOUR 2307; PSYC 1301; SOCI 1301, 1306
TOTAL HOURS	44	

#### Core Curriculum Requirements Credit Accepted Courses

Area

\*A student may not receive credit in the Core for both PHIL 2303 and PSYC 1349 (formerly required in the Core).

Students transferring to UT Tyler who are core complete from a Texas public college or university are core complete at UT Tyler. Official documentation of core complete must be provided. However, because many majors require specific lower division courses as prerequisites, a student who transfers core complete may still have lower division preparatory work to complete.

Core curriculum and field of study requirements are normally completed at the freshmen/sophomore level. All courses used to complete the core curriculum requirements at UT Tyler must be completed with a grade of "C" or better. Please check with your advisor before registering for core curriculum courses to ensure that you are registered for the correct classes. (Additional acceptable core courses may be added; check the web version of the catalog for the most current list.)

### Pre-Professional Programs

For information on pre-law, pre-theology, pre-med, pre-veterinary or pre-dental programs, see the College of Arts and Sciences section of this catalog.

### Second Baccalaureate Degree

To earn a second baccalaureate degree, the student must complete the requirements for the second major; six hours of U.S. History, three hours of Texas Government and three hours of U.S. Government (if not taken as

part of the first degree); and satisfy any lower-level requirements for the second degree. A second baccalaureate degree requires the completion of a minimum of 30 hours of resident credit in addition to the hours required for the first degree.

### Graduation Guidelines and Procedures

### Catalog of Graduation

In order to graduate, a student must fulfill catalog requirements in effect at matriculation or any subsequent catalog during the enrollment. A catalog over six years old may be used to determine requirements for a degree only if the student has been enrolled continuously in fall and spring semesters. If a student has not enrolled at UT Tyler in the past year, the student is required to complete a readmission application. Students who complete a readmission application are admitted under the catalog in effect at the time of readmission.

### Filing for Graduation

Priority Filing deadlines:	
December graduation	June 15
May graduation	October 15
Summer graduation*	March 15
Summer graduates will partici	inate in the following fall g

\*Summer graduates will participate in the following fall graduation ceremony

The following guidelines must be completed to file for graduation:

A. Pay the non-refundable \$10 diploma fee in the Cashier's Office.

B. Take the receipt to the Registrar's Office.

C. Complete the application for graduation.

### Graduation with Honors

Candidates for the Baccalaureate degree may graduate with academic honors if they complete a minimum of 45 semester hours of undergraduate credit at UT Tyler. In addition, only students pursuing an undergraduate degree are eligible for honors. Only semester hours which earn grade point credit may be used to satisfy the 45-semester hour requirement. Honors will be awarded to the following final grade point averages:

Summa Cum Laude		3.90 to 4.00	
Magna Cum Laude		3.70 to 3.89	
Cum Laude		3.50 to 3.69	

This recognition will be noted on the student's transcript and diploma after official verification of final grades. Honor Cords will be presented at the Graduation Ceremony.

### Verification of Degree

A degree will not be granted until all requirements have been verified. Incomplete grades listed on the graduation form, required transcripts from other institutions, and other evidence of outstanding requirements must be verified within 30 days following the commencement ceremony. If the requirements have not been verified by this date, the student must re-file for graduation subject to the filing for graduation guidelines.

# UNDERGRADUATE ACADEMIC POLICIES

# Student Scholastic Load

The minimum credit hour load to be considered a full-time undergraduate student is 12 semester hours during a fall or spring semester or six semester hours during a regular summer session. The maximum credit hour load permitted is 18 hours during a fall or spring semester, six hours during a regular summer session and six hours during long summer (Texas Administrative Code, Title 19, Part 1, Chapter 4, Subchapter A, Rule § 4.6).

# **Course Numbering System**

The course numbering system consists of a four-letter discipline abbreviation followed by a four-digit number. The first digit represents the level of the course: freshman level courses are 1000 series, sophomore level courses are 2000 series, junior level courses are 3000 series, and senior level courses are 4000 series. The second digit indicates the semester credit hour value of the course. The last two digits are the distinguishing numbers of the course within the department.

## **Registration Procedures**

UT Tyler encourages students to participate in the web registration periods for which scheduled dates and times are published in a brochure each semester. Students may add and drop during the regular on-campus registration periods as well as the late registration periods. Students desiring to add and drop during this period of time may do so through the registration process.

# **Course Enrollments**

The university reserves the right to cancel a scheduled course upon evidence of inadequate enrollment. Normally a minimum of ten students is required in an undergraduate course.

# Course Syllabi

Links to course syllabi for courses taught in the current semester may be found at http://www.uttyler.edu/mainsite/syllabi.html. Course syllabi are posted at least 2 weeks before the beginning of each semester.

# **Visitation Policy**

Permission to visit a class must receive prior approval from the instructor. Campus facilities are not open for general public use.

### Auditing

A student may not audit a course offered on an individual instruction basis or a course requiring the use of laboratories, computers, or studios. A student who audits a course will not receive credit for the course, nor be eligible for advanced standing examination. Participation in class activities is at the discretion of the instructor.

A student may audit a course by taking the following steps:

- 1. Obtain an audit application from the Office of Admissions (ADM 202) if you are not currently an active student.
- 2. Obtain an audit form from the Office of the Registrar (ADM 221)
- 3. After the close of regular registration secure consent of the instructor and department chair or dean.
- 4. Return the completed form to the Office of the Registrar to complete the registration process.

 Pay the \$50 audit fee in the Office of Financial Services (ADM 125C). Residents of the State of Texas who are 65 years of age or older are exempt from this charge. Please contact the Office of Financial Aid (ADM 215) to secure this exemption

# Declaration/Change of Major

Students are encouraged to declare a major at the time of application to the University. All students must declare a major no later than the end of the semester in which they will complete 60 semester credit hours. Students with more than 60 semester credit hours who have not declared a major may have a hold placed on their registration. The declaration of major form can be completed in the Office of the Registrar. If a student decides to change majors, the student should consult with both the advisor in the current major and in the new major.

Students who change majors must meet the specific requirements for the new major as stated in the catalog in effect at the time of the change of major.

# Degree Plan/Patriot Advisement Report (PAR)

Every student, after declaring a major, can access their official degree plan, the Patriot Advisement Report (PAR), through the *my*UTTyler (POPS) system. The PAR is automatically updated based on the student's enrollment. Any changes to the PAR must be approved by the departmental advisor.

### **Required Academic Proficiency Assessment**

Effective Fall 2010, all junior level students are required to complete the ETS Proficiency Profile assessment test after completion of 60 semester hours and before completion of 90 semester hours. Students who have not completed the assessment before registering for their 90th hour will have a hold placed on their registration.

Completing the assessment is a graduation requirement although student scores are not used by the University as a graduation requirement. There is no student fee for the assessment. Students pursuing a second baccalaureate degree are exempt from the assessment test.

The Proficiency Profile is offered on all three campuses of the University. Students must register to take the test at least 48 hours in advance. The schedule for the Tyler campus is posted at http://www.uttyler.edu/aie/. Students who wish to take the test at the Tyler campus must register by emailing *MAPPRegistration@uttyler.edu* with their student name, ID number and the test date of choice.

Students who wish to take the assessment at the Longview University Center should contact the Support Services Analyst at 903-663-8114. Students who wish to take the assessment at the Palestine Campus should contact the Computer User Services Analyst at 903-727-2317.

Students who qualify for special accommodations should contact the Office of Assessment and Institutional Effectiveness at 903-565-5945 or at *MAPPRegistration@uttyler.edu* to make arrangements.

# Grading System

At the end of each regular semester and summer session, grades are available to the student through the student information system by web access.

Grades, levels of performance, and grade points awarded for undergraduate coursework at UT Tyler are as follows:

#### UNDERGRADUATE ACADEMIC POLICIES

Grade	Level of Performance	Grade Points
А	excellent	4
В	good fair	3
С	fair	2
D	poor	1
F	failing	0

Designations and other symbols that do not earn grade points and are not used for calculation of grade point averages are as follows:

#### symbol

P/F	pass/fail passing work is anything "D" or above. (See Pass/Fail policy below)
CR	credit with semester credit hours awarded (See
	Credit/No-credit option policy.)
NC	no-credit with no semester credit hours awarded (See
	Credit/No-credit option policy.)
Ι	incomplete coursework (See Incomplete policy)
W	withdrawal (See Withdrawal policies)
*	a course subsequently repeated (see Repeating Courses
	and Grade Forgiveness policies)
AU	audit

There is a one-year time limit for grade changes and only the original instructor of the course may change a grade. CR, P, W, and AU designations may not be changed to letter grades. An "I" must be removed from the student's record within one year. See specific sections that elaborate on the institutional policies concerning the designations CR/NC, I, Pass/Fail and W.

### Calculation of Grade Point Average

Grades A, B, C, D, and F and the associated semester credit hours will be used to calculate grade point averages. The designations I, W, CR, NC, and AU and the associated semester credit hours will not be used.

If a student repeats a course and requests grade forgiveness, only the last grade earned and the last semester credit hours attempted are used to compute the grade point average. If grade forgiveness is not requested, then both grades will be calculated and used to compute the grade point average (See Repeating Courses and Grade Forgiveness Policy). If the student receives a W or I in the repeated course, then the previous grade continues to be used to compute the grade point average.

### Credit/No-Credit Option

Students may elect to enroll in some courses on a credit/no-credit basis. Certain courses in the curriculum may be taken only on a credit/no-credit basis. The following provisions apply to courses taken on a credit/no-credit basis:

- A. Special form requiring the signature of the student's advisor.
- B. The designation CR will not be changed to a grade of A, B, C, or D.
- C. The designation of CR and NC will not be used in calculating the grade point average.
- D. The designation CR will be counted toward the total number of hours passed.

NOTE: Students intending to apply to law school should not take courses using the CR/NC option as most law schools interpret a CR as a "C" and an NC as an "F."

### **Incomplete Policy**

If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an incomplete (I) for the course. The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to complete all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has not been assigned within one year, then the incomplete will be changed to an F. The semester credit hours for an incomplete will not be used to calculate the grade point average for a student.

### Pass/Fail Policy

To register for a class on a Pass/Fall basis, a student must have the signatures of his/her advisor and the instructor for the course.

- Students may take only one course per semester for P/F credit. Students may take only three courses on a P/F basis during their undergraduate career at UT Tyler.
- 2. The P/F option is not permitted to be used in the Core Curriculum.
- 3. The P/F option may not be used for any course that fulfills a student's major or minor requirements, including those courses which are required by, but offered outside of, the major or minor department.
- 4. Students on academic probation may not enroll in a course on a P/F basis.
- 5. A course cannot be changed from a P/F basis to letter grade or vice versa after the first five class days.
- 6. A final grade of P will not be changed to a grade of A, B, C, or D.
- 7. A final grade of P will be counted in the total number of hours passed.
- 8. To be eligible for the President's or Dean's List, a student must take a minimum of 12 semester hours of graded credit; thus 9 graded credits and 3 P/F credits do not qualify for consideration. A student who earns an "F" in a pass/fail course is not eligible for President's or Dean's List in the term in which the grade is assigned, regardless of the number of credits taken or gpa earned.

NOTE: Students intending to apply to law school should not take courses using the P/F option as most law schools interpret a "P" (passing) as a "D" or "C."

### **Repeating Courses**

A student may repeat any undergraduate course previously taken at UT Tyler if the last grade received in the course was a D or F. Repeated courses may not be taken on a CR/NC or P/F basis. Students repeating a single course more than two times may be billed at a higher tuition rate. All grades will appear on the student's official transcript. Once the baccalaureate degree has been awarded by UT Tyler, a student may repeat a course taken prior to graduation, but the repeated course will not be used to recalculate the grade point average.

### Grade Forgiveness

A student will receive grade forgiveness (grade replacement) only for three course repeats during his/her undergraduate career at UT Tyler. Grade forgiveness means that only the last grade earned is used to compute the grade point average. However, all grades will appear on the student's official transcript.

A student must file an intent to receive grade forgiveness with the registrar by the census date (see Schedule of Classes for date) of the semester in which the course will be repeated. Failure to file an intent to use grade forgiveness will result in both the original and repeated grade being used to calculate overall grade point average.

If a student attempts to repeat a course but withdraws and receives an automatic "W," the attempt counts against the grade forgiveness limit and the original grade remains.

A student may not exercise grade forgiveness for courses taken at UT Tyler and repeated at another college or university, nor may grade forgiveness be used when a course taken elsewhere is repeated at UT Tyler. The grade forgiveness option may not be exercised to remove a grade awarded in a case of academic dishonesty.

Once the baccalaureate degree has been awarded by UT Tyler, grade forgiveness may not be used to replace a grade taken before graduation.

#### Implementation

The policy affects all students repeating courses Fall 2006 and thereafter, no matter when the course being repeated was originally taken. The grade forgiveness limit is not applicable to courses repeated before Fall 2006.

### 6-Drop Rule

Any student who began college for the first time as a freshman in Fall 2007 or thereafter may not drop more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the published census date (See Academic Calendar located at

http://www.uttyler.edu/schedule/academiccalendar.htm for the date).

- Exceptions to the 6-drop rule include, but are not limited to, the following: 1. totally withdrawing from the university;
- being administratively dropped from a course by an instructor or the university;
- 3. dropping a course for a provable illness or disability, for care for a sick or injured person, or for a death in the immediate family;
- 4. dropping a course for documented change of work schedule;
- dropping a course for active duty service with the U.S. armed forces or Texas National Guard;
- 6. dropping a course that does not carry college-level credit such as a developmental course or a zero-credit course; or
- dropping courses taken as required co-requisites such as a lecture class with a required laboratory. In such cases the lecture and lab are counted as one drop when dropped at the same time.

Petitions for exemptions must be submitted to the Office of the Registrar and accompanied by documentation of the extenuating circumstances beyond performance in the course. Please contact the Office of the Registrar if you have any questions.

A designation will appear on transcripts of any student who has dropped a course where an exemption or exception was granted. All Texas institutions are required to honor the exemptions and exceptions granted by a transferring institution. Procedures for implementing the law vary among institutions. Therefore, students have an obligation to keep track of the number of non-exempted dropped courses across all institutions to ensure that they do not exceed the six dropped courses limit.

### How to Withdraw

All students should meet with their advisor and instructor prior to withdrawing from a course. In addition, students should review the Academic Calendar located

http://www.uttyler.edu/schedule/academiccalendar.htm for "W" withdrawal dates. Students are eligible to withdraw from class(es) through the 60 percent period of each semester. For more information regarding refunds, please see the Schedule of Refunds in this catalog.

Students withdrawing from a course after the 60 percent period will automatically receive an "F" in the course. Appeals to have the "F" changed to a "W" must be submitted in writing to the Office of the Registrar and include documentation of non-academic circumstances (e.g., family emergency, work transfer, etc.) that prevented timely withdrawal from the course.

The drop form must be signed by the course instructor, the department chair, or the major college Dean. All drops at this time should be for urgent, serious, and compelling reasons. Proper documentation is required. The drop process is not complete until the signed drop form is returned to the Office of the Registrar. Students are encouraged to keep a copy of their drop form.

Dropping or withdrawing from classes may affect financial aid eligibility, veteran's benefits, athletic eligibility or international student status. Students should consult with those departments prior to dropping or withdrawing.

### Withdrawal for Active Military Service

If a student withdraws because of a call to active military service, the university, at the student's option, shall:

- 1. refund the tuition and fees paid by the student for the semester in which the student withdraws;
- 2. grant a student, who is eligible under the institution's guidelines, an incomplete grade in all courses by designating "withdrawn-military" on the student's transcript; or
- 3. as determined by the instructor, assign an appropriate final grade or credit to a student who has satisfactorily completed a substantial amount of coursework and who has demonstrated sufficient mastery of the course material. (See Excused Absences for Active Military Service)

## Class Attendance/Excused Absences

Class attendance is the responsibility of the student. When a student has a legitimate absence, the instructor may permit the student to complete missed assignments. In many cases, class participation is a significant measure of performance, and non-attendance may adversely affect a student's grade. When a student's absences become excessive, the instructor may recommend that the student initiate a withdrawal.

### Excused Absence for University Events or Activities

When it is necessary for students to miss one or more regularly scheduled classes in order to participate in an official university event or activity, faculty sponsors and program directors will assist students to assure they have the opportunity to make up missed work. In doing so they are requested to observe the following procedures:

- 1. At least one month prior to the date(s)\* on which students will be absent from class, the faculty sponsor or program director shall send a memorandum to the Chief Student Affairs Officer. This memorandum shall include information concerning the nature of the event or activity, the dates(s) on which students will be absent from class, and the names of the students involved. The Chief Student Affairs Officer approves the requested student absence by initialing the memorandum and returning it to the faculty sponsor or program director.
- 2. The faculty sponsor or program director provides copies of the memorandum to the students.
- 3. Each student delivers a copy of the memorandum to the instructors, in person, at least two weeks\* prior to the date of the planned absence. At that time the instructor will set a date and time with the student when the make-up assignment or equivalent work will be completed. Make-up work will be mutually arranged; however, availability of the instructor will be given priority in setting the arrangements.
- 4. It is expected that students will not abuse the privilege of being absent from class for authorized university events or activities.

\*Events scheduled within the first month of an academic term may require a shortened lead time.

### Excused Absence for Religious Holy Days

An institution of higher education shall excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

Any student seeking to be excused for religious observance, must provide written notification to the instructors at least two weeks\* prior to the date of the planned absence. At that time the instructor will set a date and time with the student when any make-up assignment or equivalent work will be completed. Make-up work will be mutually arranged; however, availability of the instructor will be given priority in setting the arrangements. It is expected that students will not abuse the privilege of being absent from class for religious observance.

\*\*Events scheduled within the first month of an academic term may require a shortened lead time.

### Excused Absence for Active Military Service

Any student who has been called up for military service after a semester begins should immediately provide the Office of the Registrar and course instructors a copy of the military orders. Such students are excused from attending classes, turning in assignments, taking examinations or participating in any other required activity **if the absence is for no more than 25% of the total number of class meetings** (excluding final examination period). If the absence is for more than 25% of the class meetings, please refer to the policy on Withdrawal for Military Service.

Within 5 days of the student returning to UT Tyler from active service, he or she shall notify the Office of the Registrar and course instructors. The student will be allowed to complete all assignments and examinations within a reasonable time as agreed upon by the course instructors and under the same requirements in effect when the student enrolled in the course.

Should any dispute arise as to the student's inability to complete assignments or examinations within a reasonable time after the absence, the student should first seek informal resolution with the faculty member, the department chair and then the dean of the college in which the course or courses are located. If an informal process is not successful, the student may institute a grade grievance process after the final course grade is recorded.

## **Final Examinations**

Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule.

# Academic Honors

### President's Honor Roll

In order to qualify for the President's Honor Roll, a student must have completed, in one semester, 12 or more semester hours of undergraduate college-level credit with a grade of A in all courses. To be considered for such recognition in any semester, a student must qualify as a matriculated student pursuing a first bachelor's degree. The President's Honor Roll is awarded in Fall and Spring semesters only.

### Dean's List

In order to qualify for the Dean's List, a student must have completed 12 or more semester hours of undergraduate college-level credit in the awarding semester with a grade point average of at least 3.75. Students named to the President's Honor Roll are not named to the Dean's List. To be considered for such recognition in any semester, a student must qualify as a matriculated student pursuing a first bachelor's degree. The Dean's List is awarded in Fall and Spring semesters only.

# Academic Probation/Suspension

Probationary or suspended students who are first-time full-time freshmen with fewer than 30 semester credit hours will be required to participate in academic support programs such as Mentoring and Advising Patriots to Success (MAPS). Failure to participate in the required program(s) may result in additional registration and enrollment restrictions. First-time full-time freshmen will need to consult with their freshman advisor to plan an appropriate support program and to determine the steps necessary for compliance.

### Probation

A student who has a cumulative grade point average of less than a 2.0 will be placed on academic probation. For the purposes of determining academic probation, the summer terms combined are treated as one semester.

Students on academic probation who fail to earn a semester grade point average of at least 2.0 will be placed on academic suspension.

A student on academic probation should not register for more than 12 semester hours and must obtain the advisor's or department chair's approval to register.

Grade points earned at other institutions are not used in computing the grade point average.

Students who leave the university while on academic probation will retain probationary status on their return.

### Suspension

Students on academic probation who do not earn a semester grade point average of 2.0 or above in the next semester of enrollment will be placed on academic suspension. Students on academic suspension will not be eligible to enroll for classes at UT Tyler for the period listed below. Readmission after the first or second suspended term will require the permission of the student's advisor or department chair, and the dean of the college of their major.

*First Academic Suspension*--one regular semester or one full summer (Long Summer, Summer I and II)

Second Academic Suspension -- 12 months

Third Academic Suspension -- Permanent Dismissal.

Petitions for readmission to the university following the first and second suspensions may be obtained from the Office of the Registrar. It is recommended that the petition be submitted, with appropriate permissions, six weeks prior to the beginning of the semester in which the student wishes to enroll.

A student admitted to the university after having been suspended will do so on academic probation.

### Academic Grievances

Academic related grievances, such as disputes regarding grades, must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade. If the student is not satisfied with the decision, the student may appeal in writing to the appropriate Chairperson of the department from which the grade was issued. Grievances may then be appealed to the Academic Dean and the Provost and Executive Vice President for Academic Affairs. Grade Appeal Forms are available in each academic dean's office.

# Student Records

#### Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. \$1232g, and the Texas Public Information Act, Texas Government Code \$552.001 et seq., are respectively a federal and state law that mandate the review and disclosure of student educational records. In accordance with these laws, the University has adopted the following policy. Individuals are informed of their rights under these laws through this policy, which is included in the University Handbook of Operating Procedures (HOP) and Catalog. The Catalog is available in the Registrar's Office and the Office of Admissions and the HOP is available in the University Library, administrative offices, and on the UT Tyler web site.

The University will not permit access to or the release of personally identifiable information contained in student education records without the written consent of the student to any party, except as follows:

 to appropriate university officials who require access to educational records in order to perform their legitimate educational duties;

- to officials of other schools in which the student seeks or intends to enroll, upon request of these officials, and upon the condition that the student be notified and receive a copy of the record if desired;
- 3. to federal, state, or local officials or agencies authorized by law;
- 4. in connection with a student's application for, or receipt of, financial aid;
- to accrediting organizations or organizations conducting educational studies, provided that these organizations do not release personally identifiable data and destroy such data when it is no longer needed for the purpose it was obtained;
- to the parents of a dependent student as defined in section 152 of the Internal Revenue Code of 1954, provided a reasonable effort is made to notify the student in advance;
- in compliance with a judicial order or subpoena, provided a reasonable effort is made to notify the student in advance unless such subpoena specifically directs the institution not to disclose the existence of a subpoena;
- 8. in an emergency situation if the information is necessary to protect the health or safety of the students of other persons; or
- 9. to an alleged victim of any crime of violence, the results of the alleged perpetrator's disciplinary proceeding may be released.
- 10. research papers and theses authored by the student will be available to interested members of the public.

The University will release information in student education records to appropriate University officials as indicated in (1) above when such records are needed by administrators, faculty, or staff in furtherance of the educational or business purposes of the student or University.

A record of requests for disclosure and such disclosure of personally identifiable information from student education records shall be maintained the Office of the Registrar for each student and will also be made available for inspection pursuant to this policy. If the institution discovers that a third party who has received student records from the institution has released or failed to destroy such records in violation of this policy, it will prohibit access to educational records for five (5) years. Respective records no longer subject to audit nor presently under request for access may be purged according to regular schedules.

#### **Directory Information**

At its discretion, the University may release Directory Information, which shall include:

- 1. name, address, telephone number
- 2. major field of study at UT Tyler
- 3. dates of attendance
- 4. most recent previous educational institution attended
- 5. classification
- 6. degrees, certificates and awards received
- 7. date of graduation
- 8. e-mail address
- 9. photographs
- 10. participation in officially recognized activities and sports
- 11. weight and height of members of athletic teams
- 12. enrollment status (e.g., undergraduate or graduate; full-time or parttime)

Students may have all Directory Information withheld by notifying the Office of the Registrar in writing by the census date of each semester. If the student restricts the release of Directory Information, a notation is placed in the student record system and no information can be released on that student. Request for non-disclosure will be honored by the institution until the student notifies the Office of the Registrar in writing that Directory Information may be released.

All other information may not be released without written consent of the student. Grades, student identification numbers, ethnic background, and student schedules may not be released to anyone other than the student.

#### Access to File

Upon written request, the University shall provide a student with access to his or her educational records. The Executive Vice President for Business Affairs has been designated by the institution to coordinate the inspection and review procedures for student education records, which include admissions files, academic files, and financial files. Students wishing to review their education records must make written requests to the Executive Vice President for Business Affairs listing the item or items of interest. Education records covered by the Act will be made available within 45 days of the request.

Educational records do not include:

- 1. financial records of the student's parents or guardian;
- 2. confidential letters of recommendation which were placed in the educational records of a student prior to January 1, 1975;
- records of instructional, administrative, and educational personnel which are kept in sole possession of the maker and are not accessible or revealed to any other individual except a temporary substitute for the maker;
- 4. records of law enforcement units;
- 5. employment records related exclusively to an individual's employment capacity;
- 6. medical and psychological records;
- 7. thesis or research paper; or
- 8. records that only contain information about an individual after the individual is no longer a student at the institution.

#### Challenge to Record

Students may challenge the accuracy of their educational records. Students who believe that their education records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy may discuss their problems informally with the Registrar. If agreement is reached with respect to the student's request, the appropriate records will be amended. If not, the student will be notified within a reasonable period of time that the records will not be amended, and they will be informed by the Registrar of their right to a formal hearing.

Student requests for a formal hearing must be made in writing to the Registrar who, within a reasonable period of time after receiving such requests, will inform students of the date, place and the time of the hearing. Students may present evidence relevant to the issues raised and may be assisted or represented at the hearings by one or more persons of their choice, including attorneys, at the student's expense. The hearing officer that will adjudicate such challenges will be appointed by the Executive Vice President for Academic Affairs.

Decisions of the hearing officer will be final, will be based solely on the evidence presented at the hearing, will consist of the written statements summarizing the evidence and stating the reasons for the decisions, and will be delivered to all parties concerned.

The education records will be corrected or amended in accordance with the decision of the hearing officer, if the decision is in favor of the student. If the decision is unsatisfactory to the student, the student may place with the education records statements commenting on the information in the records or statements setting forth any reasons for disagreeing with the decision of the hearing officer, or both.

The statements will be placed in the education records, maintained as part of the student's records, and released whenever the records in question are disclosed.

Students who believe that the adjudications of their challenges were unfair or not in keeping with the provisions of the Act may appeal in writing to the President of the institution.

#### Copies

Students may have copies of their educational records upon requests. These copies will be made at the student's expense at rates authorized in the Texas Public Information Act, except for transcripts and other records which may be subject to specific fees pursuant to other legislative enactments. Official copies of academic records or transcripts will not be released for students who have a delinquent financial obligation or a valid "hold" at UT Tyler.

#### Complaints

Complaints regarding alleged failures to comply with the provisions of the FERPA may be submitted in writing to the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, D.C. 20202-4605. Additional FERPA information can be found at http://www.uttyler.edu/students/studentaffairs/ and in the UT Tyler Student Handbook.

# STUDENT AFFAIRS

The Division of Student Affairs is designed to enhance and support the academic mission of the institution and to offer each student an opportunity to achieve educational goals while providing a variety of enriching experiences.

### Academic Advising

The mission of the Academic Advising Center is to provide excellence in advising while building relationships with students and supporting them in achieving their academic goals. To that end, we are committed to creating a supportive and student-friendly atmosphere; to encouraging students to set academic and career goals; to empowering students to reach their goals; and to providing individual academic support through quality advisement and confidentiality while maintaining and honoring the dignity and potential of each student. For additional information, contact the Academic Advising Center at 903-565-5718 or visit us on-line at http://www.uttyler.edu/advising.

### Academic Support

The mission of the Academic Support Office and Patriot Academic Success Services (P.A.S.S.) is to provide support programs for students that will improve individual performance and academic achievement through a variety of peer tutoring programs as well as individual tutoring options. These programs exist primarily to provide support to undergraduate students in core curriculum courses. Supported courses are identified in the course schedule each semester and study sessions are led by facultyidentified students who have previously completed the courses successfully and are trained to facilitate the sessions. Course content along with effective study skills and test preparation strategies are emphasized within the regularly scheduled study sessions.

For more information or session schedules, please visit our website at http://www.uttyler.edu/si or call 903-565-5567.

### Alumni Association

The University of Texas at Tyler Alumni Association supports a variety of programs for former students and friends of the university. The association promotes scholarship support, sponsors special events, reunions, and receptions. All former students of the university may become members of the association upon making a nominal gift to the University. For more information, contact the Alumni Affairs Office at (903)566-7318 or visit our website at www.pastpatriots.com.

### **Campus Activities**

The campus activities program at UT Tyler provides students with opportunities to become engaged, to enhance their interpersonal relationships and to develop leadership skills. Campus Activities is dedicated to promoting involvement among the members of our campus community. UT Tyler Patriots have numerous opportunities to become involved in several University traditions facilitated by Campus Activities which include Patriot Palooza-Welcome Week events, Homecoming, and Patriot Days. Students may also play an active role in developing campus life through the Campus Activities Board (CAB) student organization. CAB plans and hosts various campus events including concerts, comedians, and movies. For more information, contact Campus Activities at (903) 565-5645 or visit the website at http://www.uttyler.edu/sll/campusactivities/.

### **Career Services**

Office of Career Services provides guidance, support and resources to students and alumni in making career decisions, developing job search strategies, and pursuing experiential opportunities and employment.

Career Services promotes faculty involvement in the career development process through collaborative relationships and classroom presentations. This accomplished by

- providing assistance in various initiatives such as self awareness, career exploration, job search, resume writing and interview preparation
- developing collaborative partnerships with business, government, education, and community services

• promotion an understanding of the relationship of education to work For more information, please contact the Office of Career services at (903)565-5862 or careersvc@uttyler.edu. Please visit our website at http://www.uttyler.edu/careerservices.

### **Community Service**

UT Tyler is committed to serving our local community. The Office of Community Relations is the advisor for Community Service Initiatives (CSI), the student service organization that coordinates community service projects and donation drives throughout the year. The Office of Community Relations offers twice-yearly Volunteer Fairs that provide our students the opportunity to meet with over 30 local non-profit agency representatives. In addition, we host an annual Alternative Spring Break service project in March. For more information, please visit our website: http://www.uttyler.edu/community/index.htm

# **Complaints and Grievances Process**

Throughout this chapter and others there are references to policies and procedures for bringing complaints against departments, units, faculty or staff for various issues that may arise. The following chart is provided to give students a "quick guide" to how to start a complaint process and where to get assistance or the correct forms.

Complaint	Try to Resolve Informally	File formal appeal	Who to contact for Formal Appeal
Sexual Harassment	NO	YES	Vice President for Student Affairs
Discrimination: race, age, gender	NO	YES	Vice President for Student Affairs
Disability Discrimination	YES	YES	Ida MacDonald, Dir. of Student Services
Academic Grievance	YES	YES	Department Chair
All other Complaints	YES	YES	Vice President of area where issue occurred

### **Disability Support Services**

The mission of Disability Support Services (DSS) is to provide equal access to all educational, social and recreational programs through coordination of services and reasonable accommodations, consultation and advocacy. DSS strives to provide services that will encourage students to

become as independent and self-reliant as possible. Students requesting disability services should contact the Student Services Office (903-566-7079) at least thirty (30) days prior to the beginning of each semester. The student seeking services is responsible for providing appropriate verification material to support requested accommodations. The student should provide diagnostic, prognostic, and prescriptive information from an approved professional in order to receive services. Appropriate accommodations may include program modifications, adjustments to testing situations and/or auxiliary aids and services. Disability services are provided in a private, confidential setting.

# **Emergency Information**

The Emergency number for the University is 903-566-7300. Specific information on what to do in case of a fire, medical or weather emergency, or a bomb threat can be found on the website for the Office of Environmental Health and Safety

(http://www.uttyler.edu/safety/emergencyguide.html).

The current policies and procedures for Environmental Health and Safety can be located at http://www.uttyler.edu/safety/uehsmp.html. Additional policies, plans, information, and programs dealing with health and safety can be found at

http://www.uttyler.edu/safety/policiescontents.html.

## Gang-Free Campus

The University of Texas at Tyler is a gang-free zone. Penalties for organized criminal activity such as gang-related crimes are enhanced to the next highest category of offense if they are committed on university property. (See Texas Penal Code, Sect. 71.028)

### Greek Life

Becoming a member of a fraternity or sorority provides opportunities to develop lifelong friendships, a supportive environment, and career networking opportunities. The Office of Greek Life promotes excellence in leadership, scholarship, and service. Greek Life strives to enhance the collegiate experience of fraternity men and women through their involvement in the Greek Community. UT Tyler has an active Greek Community and is home to three National Panhellenic Conference sororities: Alpha Chi Omega, Delta Gamma, and Gamma Phi Beta); two North American Interfraternity Conference fraternities: Pi Kappa Phi and Sigma Alpha Epsilon); and one National Pan-Hellenic Council organization: Delta Sigma Theta Sorority, Inc. To learn more about Greek Life, visit http://www.uttyler.edu/greeklife or call (903) 565-5788.

### Health Clinic

The University Health Clinic at Tyler is a partnership between University of Texas Health Science Center at Tyler (UTHSCT) and The University of Texas at Tyler. The University Health Clinic at Tyler is dedicated to the highest quality treatment and care of the students. Staffed by UTHSCT healthcare professionals, a variety of primary care services are provided. The clinic is located at the west entrance of the University at the corner of Patriot Drive and University Boulevard.

### Intercollegiate Athletics

The University of Texas at Tyler is an active member of the NCAA Division III, the American Southwest Conference, and offers 15 varsity sports: (M&W) basketball, baseball, (M&W) cross country, (M&W) golf, softball, (M&W) soccer, volleyball, (M&W) tennis and (M&W) track and field. The Louise Herrington Patriot Center is a state-of-the-art multipurpose facility with three basketball courts, a comprehensive fitness center, aerobics room, racquetball courts, indoor jogging track, swimming pool, classrooms, laboratories, offices, locker rooms, and a training room. Additional athletic facilities include the Irwin Field for baseball, the UT Tyler Softball Field, Citizens 1st Bank-Perkins Soccer Complex, Summers Tennis Center, and the UT Tyler Golf practice facility. Prospective studentathletes should contact the Athletics Office at 903-566-7105.

# Medical Emergency

Call 911 in case of emergency. If an accident or emergency occurring on campus requires first aid or hospital emergency room treatment, a member of the University Police Department is available for assistance. The University Police Department cannot transport persons in need of medical attention. The student will bear the cost of any professional service, transportation, or emergency treatment. Also, the cost of hospitalization or treatment in the emergency room or as an outpatient is the responsibility of the student.

## New Student and Family Programs

The Office of New Student and Family Programs is dedicated to introducing incoming students and their families to the numerous resources, programs and opportunities available at UT Tyler. New Student Programs assists new students and their families as they transition to our community by hosting Freshmen Orientation each summer and Transfer Orientation prior to the beginning of the fall and spring semesters. Future Patriots learn about the rich UT Tyler traditions while obtaining valuable information about campus resources, meeting faculty and staff and making new friends. For more information about New Student Programs or to register for orientation, visit the office online at

www.uttyler.edu/sll/NewStudentPrograms.html or by calling (903) 565-5645.

### Non-Academic Complaints

In an effort to resolve grievances or complaints other than those that are academic in nature or involve discrimination or sexual harassment, a student must first make every effort to resolve the matter informally by discussing his or her concerns with the employee, supervisor or department against whom the complaint is initiated within 30 calendar days of the time of the incident. The person to whom the complaint is presented must respond orally or in writing within 10 business days after receipt of the complaint.

If the matter is not resolved within 10 working days, the student may submit a final formal appeal to the Vice President supervising the department where the complaint originated. The form for filing the appeal is available in the Office of the Vice President for Student Affairs or can be printed from the Student Affairs web site:

http://www.uttyler.edu/studentaffairs/

The student must submit this appeal within 10 business days after the student receives the response from the department head. The Vice President and/or designee will provide a written response to the student within 10 business days of the receipt of the student's appeal. Decisions at the vice presidential level will be final. (See, Student Responsibilities section, below)

### Non-Discrimination and Sexual Harassment Policy and Complaint Procedure

It is the policy (Section 2.4.2 of the *Handbook of Operating Procedures* and Human Resources Policy VI.100, Sexual Harassment and Sexual Misconduct) of The University of Texas at Tyler to provide an educational and working environment that provides equal opportunity to all members of the University community. In accordance with federal and state law, the University prohibits unlawful discrimination on the basis of disability, sex, age, race, color, national origin, religion, citizenship, veteran status and sexual orientation. This policy applies to all University administrators, faculty, staff, students, visitors, and applicants for employment or admission. This policy is the principal prohibition of all forms of discrimination on campus, except as follows:

 Additional controlling laws, policies and procedures relating to sexual harassment and sexual misconduct can be found in the following:

- Title VI of the Civil Rights Act of 1964, 42 U.S.C. §2000d et seq., and its implementing regulation at, 34 C.F.R. Part 100, which prohibit discrimination on the basis of race, color or natural origin;
- Title IX of the Education Amendments of 1972, 20 U.S.C. §1618 et seq., and its implementing regulation at, 34 C.F.R. Part 106, which prohibit discrimination on the basis of sex;
- Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. §794 (amended 1992), and its implementing regulation at, 34 C.F.F. Part 104, which prohibit discrimination on the basis of disability;
- Title II of the Americans with Disabilities Act of 1990, 42 U.S.C. §12132, and its implementing regulation at, 28 C.F.R. Part 35, which prohibit discrimination on the basis of disability; and
- The Age Discrimination Act of 1975, 42 U.S.C. §6101 et seq., and its implementing regulation at, 34 C.F.R. Part 110, which prohibit discrimination on the basis of age.

#### Title IX/ADA/504 Coordinators

Federal law prohibits discrimination on the basis of race, gender (Title IX of the Education Amendments of 1972) age, and disability (Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990). The University of Texas at Tyler has designated the following persons as coordinators to monitor compliance with these statutes as they related to students and to resolve complaints of discrimination based on race, gender, age or disability.

For race, gender or age discrimination: Howard Patterson, Office of the Vice President for Student Affairs, 3900 University Blvd. ADM 311, Tyler, Texas 75799, 903-566-7350, e-mail: *hpatterson@uttyler.edu*.

For disability discrimination: ADA Coordinator: Ida MacDonald, Director of Student Services, University Center, 903-566-7064, e-mail: Ida MacDonald@uttyler.edu.

For more information or to file a complaint, please contact: Howard Patterson, Office of the Vice President for Student Affairs, phone: 903-566-7350, e-mail: *hpatterson@uttyler.edu*.

# **On-Campus Solicitation**

Campus facilities are not open for general public use. Solicitation on the campus of The University of Texas at Tyler is prohibited except for certain activities conducted by authorized groups that are exempt from this prohibition. No solicitation shall be conducted on any property, street, or sidewalk or in any building, structure or facility owned or controlled by The University of Texas at Tyler unless permitted by the Regents' Rules.

- For the purpose of this policy, the following defines "solicitation:"
- the sale, lease, rental, or offer for sale, lease, rental of any property, product merchandise, publication, or service, whether for immediate or future delivery.
- an oral statement or the distribution or display of printed material, merchandise, or products that is designed to encourage the purchase, use or rental of any property, product, merchandise, publication or service;
- the receipt of or request for any gift or contribution; or
- the request to support or oppose or to vote for or against a candidate, issue, or proposition appearing on the ballot at any election held pursuant to State or Federal law or local ordinances. All permissible solicitation must be conducted in compliance with Chapter 7, Subsection 7-501(b) of Student Affairs Manual of Policies and Procedures. Direct inquiries to the Office of Student Life and Leadership.

### Parent Resources

The Parent Resource Center connects parents and families to university information and events through the Patriot Parent Association, newsletters, a website, and monthly e-letters. Our Patriot Parent Association provides opportunities to serve and volunteer at Move-In Day, Parents' Weekend at Homecoming, and other campus activities. The Patriot Parent Connection newsletter showcases student opportunities and departmental programs available here at UT Tyler. Monthly e-letters provide updates and news. To register for the Patriot Parent Association and to sign up for the newsletters and e-letters, please go to http://www.uttyler.edu/parentcenter or call (903) 566-7050.

### Parking

The University of Texas at Tyler enforces all Texas vehicle inspection codes (Texas Education Code, Sec. 51.207). All vehicles that park on the campus premises must have current inspection stickers and a current student parking permit properly displayed. For complete information on Traffic, Parking, and Safety Regulations, please visit the University Police website at http://www.uttyler.edu/police/parksreg.htm.

### **Recreation Sports**

UT Tyler's Recreation Sports program includes Intramurals, Fitness, Aquatics, Club Sports, Wellness Education and Outdoor Adventures. Recreation Sports is housed in the Herrington Patriot Center, which includes an aquatic center, fitness room, dance studio, racquetball courts, indoor running track, eight lighted tennis courts, three court multi-purpose gymnasium, and intramural field. Recreation Sports also maintains over 5 miles of on-campus wellness trails and an 18-hole disc golf course. These facilities are open to all current UT Tyler students, staff and faculty.

The Intramural Sports program provides structured competitive and non-competitive activities open to all skill and fitness levels. The Fitness program features a well equipped fitness and strength room, personal training, and over 30 fitness classes per week. The heated outdoor pool is open year round and features fitness classes and summer swim lessons. Club Sports offers students the opportunity to compete against other schools outside of the intercollegiate sports program. Wellness Education presents workshops on various topics including nutrition. Finally, Outdoor Adventures gives students a chance to experience the great outdoors through activities such as mountain biking, kayaking, hiking and camping.

For more information, contact the HPC at 903 566-7466.

### **Residence Life**

Several housing options are available for students seeking the benefits of on-campus living. Patriot Village is a student apartment community on campus. The Mr. and Mrs. Joseph Z. Ornelas Hall is a residence hall community on campus. Patriot Village and Ornelas Hall are both operated by UT Tyler. University Pines is a privately-managed student apartment community on campus. Students interested in living on campus are encouraged to apply early.

Pursuant to HB 4189, all incoming residents of UT Tyler Housing are required to show confirmation from a doctor or other health practitioner that they have received a meningitis vaccination no less than 10 days before they will be permitted to move in to on-campus housing. This will affect all incoming residents of Patriot Village, Ornelas Hall, and University Pines.

University Pines may be contacted at 903-566-3565. Those interested in information about housing managed by UT Tyler (Patriot Village or Ornelas Hall) should call (903)566-7008. Information can also be found at the Residence Life Office or on the Residence Life website at http://www.uttyler.edu/housing/index.html.

### Student Counseling Center

The mission of the Student Counseling Center is to help students resolve their personal concerns and acquire the skills, attitudes, abilities, and insight that will enable them to meet the challenges of student life. The Student Counseling Center offers individual therapeutic counseling in a private, confidential setting to assist students in achieving personal and educational goals. The Student Counseling Center is staffed by Licensed Professional Counselors with in-depth training and experience, and a varied background in counseling, testing, and teaching. Some common issues that students may deal with in counseling are: choosing a major, test anxiety, decisionmaking. procrastination, communication difficulties, self-esteem, interpersonal conflicts, stress management, personal relationships, physical/emotional/sexual abuse, sexual assault, anxiety, depression, and many others. Students are encouraged to schedule an appointment by calling (903)566-7254.

# Student Government Association

The Student Government Association (SGA), comprised of all enrolled students, has as its primary purpose to serve as a recognized forum for student opinion. Activities of the SGA include assisting the university in identifying the interests, programs and goals of the majority of students. Officers and representatives are elected annually by the student body. For more information, visit the SGA website at *http://uttyler.edu/sga* or call 903-566-7083.

### Student Insurance

An illness and accident insurance program underwritten by United Healthcare is available for students and their dependents. All international students holding non-immigrant visas are eligible and are required to purchase health insurance, prior to registration.

Students who participate in the University's intercollegiate program must provide proof of accident and illness insurance coverage or purchase such coverage through the University. The University carries catastrophic insurance on all student-athletes.

For more information, visit the Student Services Office, or call (903)566-7079 or the insurance company's website at http://www.uhcsr.com/UTSystem.

# Student Learning Communities

Student Learning Communities (SLCs) are available in the fall semester for first-time freshmen and are composed of small groups of students with a common major or interest who take classes and a Freshman Year Experience class together. The supportive environment created in these learning communities brings students, faculty, staff, and peer mentors together to promote academic and social success. Freshmen may register for learning communities while registering for fall classes with Academic Advising.

For more information about Student Learning Communities, please visit http://www. uttyler.edu/slc or call (903) 565-5676.

# Student Life and Leadership

Office of Student Life and Leadership provides opportunities for students to become engaged in the UT Tyler experience through numerous campus events and service projects, a thriving Greek community and more than 60 registered student organizations. Programs and activities are designed to build community as well as to meet the needs of a diverse student population.

Office activities enhance the educational experience of students by engaging students in programs that promote learning, involvement, free inquiry, leadership, and service. This is accomplished by partnering with students, faculty, staff, and alumni as we prepare citizens for leadership in a global society. The Office of Student Life and Leadership is comprised of Campus Activities, Community Relations, Greek Life, New Student Programs, Parent Resource Center, Student Organizations and the University Center. You may visit the website at www.uttyler.edu/sll/ or call (903) 565-5645 for more information.

### **Student Organizations**

UT Tyler is home to over 60 student organizations. The diverse interests and makeup of the UT Tyler student body are represented in the variety of groups, ranging from academic honor societies to religious organizations to specific interest groups. Participating in a campus organization enriches students' educational experiences by fostering personal development and growth outside of the classroom. Although there are many groups to choose from, students may start new organizations if they do not find ones that fit their unique interests or needs. The Office of Student Life and Leadership also assists student organizations with leadership development and serves as a resource as they plan events and activities that promote campus life.

A complete listing of student organizations and their contact information can be found on the Office of Student Life and Leadership website at http://www.uttyler.edu/sll/ or by calling 903-565-5645.

# Student Responsibilities

All students at The University of Texas at Tyler are subject to all Rules and Regulations of the Board of Regents of The University of Texas System and institutional rules and regulations. Rules regarding student conduct and discipline are included in Series 501010f the Rules and Regulations of the Board of Regents and in The University of Texas at Tyler Manual of Policies and Procedures for Student Affairs http://www.uttyler.edu/mopp/index.htm.

#### Student Conduct and Discipline

The University of Texas System and The University of Texas at Tyler have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities.

The University of Texas at Tyler administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations* of the Board of Regents of The University of Texas System

(http://www.utsystem.edu/bor/rules.htm) and in the Manual of Policies and Procedures for Student Affairs (http://www.uttyler.edu/mopp/index.htm). Information on the discipline process can also be found on the Judicial Affairs website (http://www.uttyler.edu/housing/JudicialAffairs.htm).Copies of these rules and regulations are available to students in the Office of the Vice President for Student Affairs and the Director of Residence Life and Judicial Affairs' office where staff are available to assist students in interpreting the rules and regulations.

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating its standards of conduct whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct.

If you have questions about the student discipline process, please contact the Director of Residence Life and Judicial Affairs at 903-455-7008.

#### Academic Dishonesty

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment of the award of a degree, and/or the submission, as one's own work of material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

#### Copyright Infringement

Unauthorized distribution of copyrighted material may subject students to civil and criminal penalties under the Federal Copyright law, (See, http://www.copyright.gov/title17/circ92.pdf) Material subject to federal law includes, but is not limited to, printed materials, choreographic works, pantomimes, pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work. It also includes computer software, computer programs, musical works, sound recordings, and videos and other audiovisual work. It is also a violation of federal copyright law for any of the above to be electronically distributed through peer to peer sharing,

Students found in violation of the Federal Copyright law may also be subject to student disciplinary proceedings as described above. For more information on what constitutes copyright infringement and penalties see The UT System's copyright information website at http://www.utsystem.edu/ogc/intellectualproperty/copypol.htm.

#### Hazing

Hazing, submission to hazing, or failure to report first-hand knowledge of hazing incidents is prohibited by state law and, in addition to disciplinary actions, is punishable by fines up to \$10,000 and confinement in county jail for up to two years. Hazing is defined by state law as, "...any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization whose members are or include students at an educational institution." Any person with knowledge that a specific hazing incident has occurred on or off campus must report the incident to the Vice President For Student Affairs.

In an effort to encourage reporting of hazing incidents, the law grants immunity from civil or criminal liability to any person who reports a specific hazing event in good faith and without malice to the dean of students or other appropriate official of the institution and immunizes that person for participation in any judicial proceeding resulting from that report. Additionally, a doctor or other medical practitioner who treats a student who may have been subjected to hazing may make a good faith report of the suspected hazing activities to police or other law enforcement officials and is immune from civil or other liability that might otherwise be imposed or incurred as a result of the report. The penalty for failure to report is a fine of up to \$1,000, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury which result, and include fines from \$500 to \$10,000 and/or confinement for up to two years.

# Student Right-To-Know and Campus Security Act

In compliance with the Student Right-to-Know and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (the Act), UT Tyler collects specified information on campus crime statistics, campus security policies, and institutional completion or graduation rates.

Pursuant to the federal law, alleged victims of violent crime are entitled to know the results of campus student disciplinary proceedings concerning the alleged perpetrators.

UT Tyler makes timely reports to the campus community on crimes considered to be a threat to students and employees and reported to the campus police or local police agencies. These alerts are distributed by a variety of means including campus bulletin boards, e-mail, and website.

UT Tyler publishes and distributes an annual report of campus security policies and crime statistics to all current students and employees; provide copies of the report to applicants for enrollment or employment upon request; and submit a copy of the report to the Department of Education. The annual campus crime statistics report references crimes that occur on property owned or controlled by UT Tyler. The report is located on the department website at http://www.uttyler.edu/police/campsecact.htm. Hard copies of the report are available at the University Police Department upon request.

UT Tyler publishes in the annual security report its policy regarding sexrelated offenses, including sexual assault prevention programs, education programs to promote awareness of sex offenses, administrative disciplinary procedures and sanctions for offenders, and counseling and student services for victims. Any law enforcement information provided by state law enforcement agencies concerning registered sex offenders may be obtained from the UT Tyler Police Department at 903-566-7060.

UT Tyler calculates and discloses institutional completion or graduation rates to all prospective and current students annually. Prior to the offer of athletics-related student aid to a potential student athlete, UT Tyler will provide information on graduation rates specified by the Act to the prospective student and to the student's parents and coach.

# Student Travel Policy

These guidelines apply to all student travel if the activity or event meets all of the following criteria and is undertaken by one or more currently enrolled students to reach an activity or event.

- 1. The activity or event is sponsored, organized and funded by UT Tyler.
- 2. The activity or event is located more than twenty-five (25) miles from UT Tyler.
- 3. The activity or event is either:
  - a. undertaken, using a vehicle owned, leased or rented by the institution; or
  - b. attendance at the activity or event is required by a registered student organization and approved in writing by the Vice President for Student Affairs.

For a complete set of guidelines and forms, please view the Manual of Policies and Procedures for Student Affairs at

http://www.uttyler.edu/mopp/index.htm.

**NOTE:** For purposes of this document, the staff adviser, coordinator, director, coach or other person overseeing the off-campus activity shall be identified as the Responsible University Official (RUO).

- At least one staff member (RUO) must accompany students on any off-campus activity. Staff members are responsible for knowing the University Code of Conduct and its policies. The consequences of noncompliance must be made clear to participants and the RUO must take appropriate action when aware that participants are in violation.
- A pre-trip orientation meeting must be conducted for participants prior to the date of departure. Participants should be informed of as much detail about the trip and its circumstances as reasonably possible, including all known risks. Participants should also be informed of emergency response measures.
- 3. The RUO should complete and submit to the Office of the Vice President for Student Affairs the group travel authorization request form for approval *at least* two weeks prior to departure.
- 4. If the trip is approved, the RUO must submit the required completed and signed forms to the Office of the Vice President for Student Affairs at least one week prior to departure. The RUO must also maintain a copy of these records throughout the trip in a manner that ensures immediate access to the information for **each participant** in case of an accident or health-related emergency. A copy will be forwarded to the UT Tyler Police Department.
- Students traveling on a University-sponsored *overnight* trip must have medical insurance. Student health insurance is available at minimal cost. Contact the Student Services Office at 903-566-7079.
- 6. Use or possession of weapons, alcohol or illegal drugs is forbidden while traveling on a University-sponsored trip.
- All travel subject to this policy must be undertaken in vehicles owned, 7. leased or rented by The University or with common carriers. No personal vehicles are permitted for use in travel that is subject to this policy. Approval includes the driver being a University employee, having a valid operator's license with a Motor Vehicle Record of 2 or less, and participating in instruction and hands-on training (15passenger vans only). Drivers of motor vehicles shall comply with all laws, regulations, and posted signs regarding speed and traffic control, or additional directives stipulated by UT Tyler or the UT System. If University-owned vehicles are available, they should be used for trips within a 60-mile radius of UT Tyler. All other trips must be booked through the UT Tyler contracted rental company or a charter bus company. All forms must be completed and all guidelines followed whether travel is in University-owned vehicles, rental vehicles, chartered bus, or other common carrier. The RUO shall take reasonable steps to assure that all travel is undertaken in conformance with University approved policies.
- 8. The distance to the destination and/or the number of participants needing transportation determines the type of transportation to be used. Each vehicle using University employees as drivers should attempt to have two certified drivers. However, when a trip exceeds

three hundred miles one way two certified drivers per vehicle are **required.** On long trips, drivers should rotate every three hours\*, and no more than eight hours of driving should be completed during any one day. No more than nine (9) people plus gear, luggage or other items may be loaded in any one van. Passengers should be seated toward the front of the van in recognized seating with gear, luggage and other items distributed evenly in the rear behind the last seat. On trips where the number of participants and available drivers preclude the use of 15-passenger vans, a chartered bus or mini-bus should be used. When a trip exceeds 350 miles one way and/or trips greater than 250 miles that require driving after 11:00 p.m., professional drivers must be contracted. **NOTE:** All vehicles must have access to a cellular phone and the number must be indicated on the group travel authorization request form.

- 9. The total number of passengers in any vehicle may not exceed the manufacturer's recommended capacity or the number specified in applicable federal or state law or regulations whichever is lower.
- Occupants of motor vehicles (except charter busses) must use seat belts or other approved safety restraint devices at all times when the vehicle is in operation.
- 11. Drivers of all motor vehicles must check to ensure that the vehicle has a current proof of liability insurance card, State inspection certification, be equipped with all safety devices or equipment required by law or regulation and comply with all other applicable requirements of federal or State law or regulations before departing from campus.
- 12. Each vehicle owned or leased by UT Tyler must be subject to scheduled periodic maintenance by qualified persons and comply with all applicable requirements of The University of Texas System Business Procurement Memoranda.
- 13. When any incident occurs, i.e. accident, mechanical failure, medical emergency, code of conduct violation, etc., the RUO must call his/her supervisor as soon as is feasibly possible. The supervisor will notify the Vice President for Student Affairs. A meeting must be called as soon as feasibly possible after returning from the trip to investigate the incident. The Office of the Vice President for Student Affairs will contact the Environmental Health and Safety Officer and UT Tyler Police when appropriate.
- 14. Non-University business side trips, such as a trip for entertainment purposes, must be planned and approved in advance. Trips to known high-risk areas will not be approved and must not be undertaken. Spontaneous activities, while on the primary trip, such as going to a local movie or special restaurant, shall be at the discretion of the RUO. Students traveling on University funded trips must arrive at and depart the site at the same time as the advisers. The RUO's immediate supervisor and the Vice President for Student Affairs must approve any exceptions to this policy.

# **Testing Services**

The mission of Testing Services is to provide students with proctoring services of approved examinations through the administration of correspondence examinations, the College-Level Examination Program (CLEP) examinations, and standardized testing. Examinations are administered to ensure the security of the examination and with each student's particular needs in mind.

Current standardized examinations offered through testing include the Miller Analogy Test (MAT), Accuplacer, the College Level Exam Program (CLEP), the Scholastic Aptitude Test (SAT), the Quick THEA, The Examination for Certification of Educators in Texas (TEXES/ExCET), and the Texas Examination for Master Teachers. Other national and state tests are administered as determined by university needs. Application information for the TEXES/ExCET is available through the College of Education and Psychology; application information and administration dates for other tests are available in the Student Services Office.

# **Textbooks and Supplies**

It is a responsibility of each student to provide his/her own textbooks and supplies. The University Bookstore is the on-site vendor of course required materials and supplies. However, a student is not under any obligation to purchase a textbook from the university-affiliated bookstore. The same textbook may also be purchased from an independent retailer, including an online retailer.

### **University Center**

University Center serves as the place for dining, socializing and hosting campus events for The University of Texas at Tyler's students, faculty, staff and guests. As the community gathering place for the campus, the University Center strives to be an inviting and inclusive environment where ideas are exchanged, relationships are built, and memories are made. Whether you are meeting friends in the Patriot Zone, grabbing a bite to eat in the Met or the Sports Cafe, or attending an event in the Ballroom, rest assured you can get it done at the University Center. Contact the Office of Student Life and Leadership at (903) 565-5645 or visit our website at http://www.uttyler.edu/sll.

## Wellness and Prevention Education

The mission of Wellness and Prevention Education is to provide various services and programming opportunities that encourage healthy decisionmaking among students. Wellness and Prevention education coordinates health-related programs that comply with federal and state mandates such as the Drug Free Schools and Communities Act Amendments of 1989 and provides personal counseling coordinated through the Student Counseling Center. Programming and information through this office covers areas such as alcohol, tobacco, and other drug abuse, sexual assault and partner violence, sexual responsibility, student health insurance information, and other health-related topics.

Wellness and Prevention Education works with various specially trained student groups who are interested in impacting other students to encourage a change in behavior or improvement in knowledge about various student issues. Currently, Crossfire, a University Mothers' Against Drunk Driving affiliate and Campus Assault Response Effort (CARE) student organizations are advised by Wellness and Prevention Education Services. These organizations are open to any currently enrolled student at The University of Texas at Tyler. For more information on programs offered through Wellness and Prevention Education call (903) 566-7067.

### AIDS, HIV and Hepatitis B Infection

The University of Texas at Tyler recognizes Acquired Immune Deficiency Syndrome (AIDS), Human Immunodeficiency Virus (HIV), and Hepatitis B Virus (HBV) as serious public health threats and is committed to encouraging an informed and educated response to issues and questions concerning AIDS, HIV, and HBV. In furtherance of its commitment UT Tyler has adopted a policy and procedural steps to protect both the rights and well-being of those students, employees, and patients who may be infected with HIV or HBV as well as to prevent the spread of infection. No individual with HIV or HBV infection will be discriminated against in employment, admission to academic programs, health benefits, or access to facilities. Students with HIV or HBV infection may attend all classes without restriction, as long as they are physically and mentally able to participate and perform assigned work and pose no health risks to others. All information regarding the medical status of UT Tyler faculty, staff, and students is confidential.

A complete copy of the AIDS, HIV and Hepatitis B Infection policy can be found in the *Handbook of Operating Procedures*, Chapter 2, Sec. 2.9.1. This policy is applicable to all students of UT Tyler as they pursue their academic (and clinical) endeavors. A brochure is available to all students on request by phoning UT Tyler at (903) 566-7079.

### **Bacterial Meningitis**

Bacterial Meningitis is a serious, potentially deadly disease that can progress extremely fast. It is an inflammation of the membranes that surround the brain and spinal cord. Bacterial Meningitis strikes about 3,000 Americans each year, including 100-125 on college campuses. This disease is transmitted when people exchange saliva (such as by kissing, or by sharing drinking containers, utensils, cigarettes, toothbrushes, etc.) or come in contact with respiratory or throat secretions. Symptoms includes high fever, rash or purple patches on skin, light sensitivity, confusion and sleepiness, lethargy, severe headache, vomiting, stiff neck, nausea, and seizures. The more symptoms, the higher the risk, so when these symptoms appear seek immediate medical attention. Early diagnosis and treatment can greatly improve the likelihood of recovery.

Pursuant to HB 4189, all incoming residents of UT Tyler Housing are required to show confirmation from a doctor that they have received a meningitis vaccination no less than 10 days before they will be permitted to move in to on-campus housing. This will affect all incoming residents of Patriot Village, Ornelas Hall, and University Pines.

For more information, contact the Texas Department of Health office at (903)595-3585 or (903)533-3373. Informational web sites: http://www.cdc.gov/ncidod/dbmd/diseaseinfo OR http://www.acha.org

# FINANCIAL AID, SCHOLARSHIPS AND VETERANS AFFAIRS

### Veterans Affairs

Veterans services are provided through the Office of Financial Aid. These services include counseling regarding V.A. regulations as they pertain to the university, assistance in the preparation of certification forms for the veteran, and a variety of resources for the veteran's benefit.

# Financial Aid and Scholarships

The university offers financial aid to students on the basis of need, and Institutional Scholarship on the basis of merit. Financial aid consists of grants, employment, and loans. Students may receive one or more awards and must apply each year for all types of funding.

# Financial Aid

The primary purpose of the financial aid program is to assist students who would otherwise be unable to attend college. An applicant's need for financial aid is analyzed on an individual basis and need is determined by subtracting the expected family contribution from the estimated educational costs. Applications for financial aid are accepted and considered without discrimination on any basis prohibited by law, including, but not limited to, race, color, age, national origin, sex, veteran status, religion, or disability.

Students subject to selective service registration will be required to file a statement that the student has registered or is exempt from selective service registration in order to be eligible to apply for federal or state financial aid.

# Applying for Financial Aid

The student is responsible for proper completion and submission of all required documents. Students applying for most Federal and State financial aid programs must demonstrate financial need.

Applicants for these programs must complete the following application:

Free Application for Federal Student Aid (FAFSA), available online at www.fafsa.ed.gov

Filing deadline for financial applications for priority consideration is April 1.

Student participation is contingent upon continued funding for that program, maintaining satisfactory academic progress and meeting all federal and state guidelines.

# **Financial Aid Programs**

Students will find a wide range of grant, loan, employment, and tuition exemption and waiver programs available at UT Tyler.

#### Grant Programs

Federal Pell Grants Federal Supplemental Educational Opportunity Grants Texas Public Educational Grants Leveraging Education Assistance Partnership Grants TEXAS Grant Program Education Affordability Grant Federal Academic Competitive Grant (ACG) National Science and Mathematics Access to Retain Talent Grant (National SMART Grant)

#### Loan Programs

William D. Ford Federal Loan Program (Stafford, Unsubsidized

Texas B-on-Time Loan Program

Stafford, PLUS)

**Employment Programs** Federal Work Study Program Texas Work Study Program Working to Success Program

Students who qualify for Work Study can find available on-campus jobs by going to the *Patriot Jobs* website for the Office of Career Services (http://www.uttyler.edu/careerservices/patriotjobs.html) and clicking on the Student/Alumni Login to access a database of available jobs. Students will be asked to create a username and password to access the database.

#### Tuition Exemptions and Waivers

For a complete listing of all exemptions and waivers offered by the Texas Higher Education Coordinating Board, please refer to www.collegeforalltexans.com

Hazlewood Tuition Exemption

Texas Commission for the Deaf Exemption Texas Commission for the Blind Exemption Early High School Graduation Award Competitive Scholarship Waiver Teaching/Research Assistant Waiver Teacher/Professor Tuition Waiver Concurrent Enrollment Exemption Bordering State Resident Waiver Valedictorian of Texas High Schools Exemption Educational Aide Exemption Senior Citizens Exemption U.S. Military Stationed in Texas Adopted Students Formerly in Foster or Residential Care Children of Professional Nurse Faculty and Staff Clinical Preceptors and their children TANF Exemption Children of Disabled Firefighters and Peace Officers

# Scholarships

Scholarships offered at The University of Texas at Tyler are designed to attract and retain outstanding degree seeking students. To be considered, students must be accepted for admission to UT-Tyler and submit an application for scholarship on-line at www.uttyler.edu/scholarship for the appropriate academic year, if required.

It is recommended that all scholarship applicants complete the Free Application for Federal Student Aid (FAFSA). Awarding of academic scholarships is based primarily on predictors of academic success, such as high school class rank, standardized test scores, and prior college grades.

# **Endowed Scholarships**

American Association of University Women/Rosalis Montgomery Memorial Scholarship Dorothy Earle Albertson Endowed Scholarship Elizabeth Ann, Lila & Melvin Alsbury Endowed Presidential Scholarship in

Electrical Engineering Ambassador Endowment

Anderson Endowment

K.A. Anderson Endowed Memorial Nursing Scholarship

Anderson-Vukelja Scholarship

Laurie Ellard Bates Scholarship Fund

William and Sherry Bickham Scholarship Endowment

James R. Borgerding Endowed Presidential Scholarship

Benjy F. Brooks Endowed Presidential Scholarship

Dorothy Bradley Brown International Studies Endowment Lillian and Albert Marvin Brown Scholarship Roberta M. Burris Endowed Memorial Scholarship in Nursing President George H.W. Bush Scholarship B. G. Byars Foundation Presidential Endowed Scholarship Donald and Shirley Chase Scholarship Mr. and Mrs. Charles L. Childers Endowed Presidential Scholarship Classical, Medieval & Renaissance Studies Scholarship Thomas W. Clay Scholarship Calvin and Patsy Clyde Presidential Scholarship Rupert & Phoebe Lou Cobb Memorial Scholarship Norma Dell Conger Endowed Memorial Scholarship in Nursing Kellie Copeland Endowed Academic Memorial Scholarship Cowan Center Scholarship Richard T. Cowan Endowed Presidential Scholarship Stella Crews & Erwin Douglas Dyer Scholarship Endowment Kevin & Kelly Eltife Endowed Presidential Scholarship Evans & Louise Estabrook Endowed Presidential Scholarship Carolyn McLean Ewbank Scholarship Dr. O.L. "Buddy" & Jo Ferrell Endowed Scholarship Maytee & Ben R. Fisch Endowed Presidential Scholarship Ben & Maytee Fisch Endowed Presidential Scholarship II Ben R. & Maytee Fisch Endowed Presidential Scholarship III Mary L. & Donald E. Fischer Endowed Academic Scholarship Marie Otte Fischer Endowed Memorial Academic Scholarship Friends of the Arts Scholarship Hilda Jarett Genecov Endowed Presidential Scholarship Mr. & Mrs. John D. Glass Jr. Endowed Presidential Scholarship Sam R. Greer Endowed Presidential Scholarship Mildred H. Grinstead Scholarship Elizabeth S. Gugenheim Memorial Endowed Presidential Scholarship M.J. Harvey, Sr. Memorial Scholarship Mr. & Mrs. Bob L. Herd Presidential Scholarship Hoeffner -Rex-Hide Scholarship U.T. Tyler Patriot Million Dollar Hole-In-One Endowed Scholarship J. S. Hudnall Endowed Academic Scholarship Laura Lynn Hughes Memorial Scholarship Jeanne & Phil Hurwitz Endowed Presidential Scholarship Phil Stacy Jackson History Scholarship Award Khalifa Scholarship for Engineering Studies William A. & Evelyn J. Krueger Endowed Scholarship Fund Wilbert and Maxine Lasater Endowed Scholarship Selden Leavell Endowed Scholarship Sam A. Lindsey Endowment Fund M P Industries, Inc. Scholarship Ralph Martin Engineering Scholarship Dr. Charles T. McCarthy Scholarship McClure Endowed Scholarship in Psychology H. J. McKenzie (Mr. Mac) Scholarship H. J. McKenzie Endowed Presidential Scholarship Memorial Hospital Foundation Endowment James Robert & Rosalis Montgomery Endowed Presidential Scholarship James Robert & Rosalis Montgomery Endowed Scholarship Fund Maurine Genecov Muntz Endowed Academic Scholarship Arch & Acie Murray Endowed Nursing Scholarship Lloyd & Seville Nunn Endowed Presidential Scholarship Nursing Jubilee Endowed Scholarship Joseph Z. and Louise Ornelas Scholarship Bonnie and Scott Palmer Scholarship Patriot Classic Scholarship Endowment Patterson-Knight Scholarship Citizens 1st Bank/Perkins Freshman Scholarship Harry S. & Bettye C. Phillips Endowed Presidential Scholarship Jack and Barbara Phillips Scholarship George W. Pirtle Endowed Scholarship for Distinguished Students Joyce & Bill Pirtle Endowed Presidential Scholarship George W. Pirtle Endowed Graduate Scholarship Alton & Abbie Lee Pratt Endowed Academic Scholarship President's Associates Endowment Fund Ella Kate & Wallace Ralston Nursing Students Scholarship Fund Bill Ratliff Scholarship

Betty Jo & Dub Riter Endowed Presidential Scholarship A.W. "Dub" Riter, Jr. Endowed Presidential Scholarship Riter Family Scholarship Roddy Scholarship Bob & Lou Rogers Endowed Academic Scholarship George S. Rogers Endowed Presidential Scholarship Isadore Roosth Endowed Presidential Scholarship J.W. & Josephine Rumbelow Memorial Endowed Presidential Scholarship Barbara Diane Rydzak Scholarship J.J. & Angel Saleh Endowed Presidential Scholarship Phillip Saleh Family Scholarship Endowment Scroggin Scholarship Fund Bettye P. Secrest Endowed Academic Scholarship Ruby Evelyn Sharpe Endowed Academic Memorial Scholarship Nan Shertzer Endowed Presidential Scholarship Rev. Lewis L. & Ruth MacDonald Shoptaw Endowed Academic Scholarship Smith County Medical Society Alliance Endowed Presidential Nursing Scholarship Edwin Morgan Smyrl & Frank H. Smyrl Endowed History Scholarship Spangenberg Scholarship pending Ralph Spence Endowed Engineering Scholarship Mary John & Ralph Spence Endowed Presidential Scholarship Sjoerd Steunebrink Scholarship Endowment Dr. James H. Stewart, Jr. Scholarship Harold & Eleanor Stringer Family Scholarship Fund Ruby Stubblefield Scholarship Endowment The University of Texas at Tyler Student Deposit Endowment Fund R.L. Summers Endowed Presidential Scholarship Zoe & Eugene Talbert Endowed Presidential Scholarship Everett T. Taylor, Jr. and Jimmie Lee Taylor Scholarship Jaretta Kennedy Tomblin Memorial Endowed Presidential Scholarship Dr. Tom G. Turns Endowed Presidential Scholarship Tyler Clearinghouse Association Endowment for American Economic Education Vaughn Foundation Presidential Scholarship in Nursing Hogan/Whitaker Endowed Scholarship Jack & Dorothy Fay White Endowed Presidential Scholarship I Jack & Dorothy Fay White Endowed Presidential Scholarship II Jack & Dorothy Fay White Endowed Presidential Scholarship III Jack & Dorothy Fay White Endowed Presidential Scholarship IV Jack & Dorothy Fay White Endowed Presidential Scholarship V Jack & Dorothy Fay White Endowed Presidential Scholarship VI Jack & Dorothy Fay White Endowed Presidential Scholarship VII Jack & Dorothy Fay White Endowed Presidential Scholarship VIII Jack & Dorothy Fay White Endowed Presidential Scholarship IX Jack & Dorothy Fay White Endowed Presidential Scholarship X Jack & Dorothy Fay White Endowed Presidential Scholarship XI Jack & Dorothy Fay White Endowed Presidential Scholarship XII Jack & Dorothy Fay White Endowed Presidential Scholarship XIII Jack & Dorothy Fay White Endowed Presidential Scholarship XIV Jack & Dorothy Fay White Endowed Presidential Scholarship XV Jack & Dorothy Fay White Art Scholarship XVI Jack & Dorothy Fay White Scholarship XVII Jack & Dorothy Fay White Scholarship XVIII Jack & Dorothy Fay White Scholarship XIX Jack & Dorothy Fay White Scholarship XX Jack & Dorothy Fay White Scholarship XXI Jack & Dorothy Fay White Scholarship XXII Jack & Dorothy Fay White Endowed Presidential Scholarship in Engineering Ben & Margy Anne White Endowed Presidential Scholarship in Engineering Brady H. White Endowed Presidential Scholarship Marjorie Perry White Scholarship Fund Mastin Gentry White Scholarship Fund Harry Loyd & Jean Wilkinson Academic Endowed Scholarship in Fine Arts Virginia Śmith Wilks Nursing Endowment Watson W. and Emma F. Wise Scholarship Watson W. Wise Incentive Award Mrs. Royce E. (Petey) Wisenbaker Endowed Presidential Scholarship Claire M. Woldert Endowed Presidential Scholarship Joseph Zeppa Endowed Presidential Scholarship

# LEARNING RESOURCES

# Robert R. Muntz Library

#### Jeanne R. Pyle, Director

#### Mission Statement

The University of Texas at Tyler Libraries supports the University's goals of excellence in teaching, research, and public service. As an essential academic unit, the Libraries will serve as a center of discovery, exchange, and advancement of ideas.

The Robert R. Muntz Library provides access to thousands of digital books and a wide variety of electronic databases and periodicals. Students, faculty and staff, regardless of location, have access to online library resources and services. There are also onsite resources available at both Longview and Palestine campuses.

The Library houses an array of online and print materials to support the various degree programs offered by the University of Texas at Tyler. Holdings also include numerous materials received through the Library's designation as one of 55 Texas state government document depositories, as well as videos, CD's, and other audiovisual materials. The Library's Interlibrary Services also provides the university community with access to great many academic and public library collections, worldwide.

The skillful, services-oriented library staff provides assistance to our other users with their research and information needs. Librarians strive to select, acquire, organize, preserve and share the information resources necessary to meet the current and future needs of library users.

The library provides an environment conductive to study and collaboration. Wireless networked laptops are available to students for checkout and use within the library. Access to PatriotAir, the campus wireless network is available for personal laptops. The library also maintains individual study carrels and group study rooms.

The ultimate goal of library functions is to meet the needs of the individual while preserving equal access for the entire university community.

# **Education Technology Services**

#### Kyle Stewart, Manager

Educational Technology Services (ETS) provides the logistical, technical, and professional support for faculty, staff, and students in the use of educational technology. ETS supports the educational technology goals and mission of The University of Texas Tyler through the design and development of educational technology plans, equipment recommendations, and ongoing support.

Production services are offered in these major areas: interactive television operations, audio/video equipment distribution, video editing, and satellite downlinks. A fee is charged to the individual or department for cost of materials consumed or for support personnel after normal operating hours. Due to the Revised Copyright Law, the Education Technology Services reserves the right not to duplicate certain material. Distribution of educational technology equipment for on-campus presentations is also provided at no charge for University-sponsored events. Non-University sponsored events may be assessed a fee for time and materials. Because of the frequency of equipment use, a reservation is required at least two days in advance.

# COLLEGE OF ARTS AND SCIENCES

#### Dr. Alisa White, Dean

Because learning is a lifelong endeavor, liberal arts and sciences programs are designed to assist in developing the knowledge, skills and perspectives of an educated person. To that end the College:

- Advances the university's purpose by providing a setting for free inquiry; excellence in teaching, scholarship, creative activity and research; and public service by faculty, staff and students.
- Encourages honesty, integrity, responsibility, service to others, and sensitivity to the concerns of all people and cultures.
- Provides programs that explore the natural and physical world and the human condition and the opportunities that our differences create, for the mutual advancement of all people.
- The College of Arts and Sciences offers fifteen baccalaureate majors:

Art (B.A., B.F.A.) Bachelor of General Studies (B.G.S.) Biology (B.S.) Chemistry (B.S.) Criminal Justice (B.S.) Economics (B.A., B.S.) English (B.A.) History (B.A., B.S.) Journalism (B.A., B.S.) Journalism (B.A., B.S.) Music (B.M., B.A.) Political Science (B.A., B.S.) Sociology (B.A., B.S.) Spanish (B.A.) Speech Communication (B.A., B.S.)

The college also offers courses to be used in satisfying teacher certification requirements for teaching fields in art, chemistry, English language arts, history, journalism, life science (biology), mathematics, music, physical science (chemistry), social studies, Spanish, and speech communication. Courses leading to an undergraduate supplement in English as a Second Language (ESL) are also available. Graduate programs are described in the graduate section of this catalog.

#### Core Curriculum

All students in the College of Arts and Sciences who do not come "core complete" from another Texas public college or university are required to complete a 44-hour University Core Curriculum as outlined in the Undergraduate Academic Policies section of this catalog. Students should consult their advisor before enrolling in Core Curriculum courses as many majors require specific courses to be taken.

To meet the six-semester-hour mathematics component of the University Core Curriculum:

- Students majoring in Biology, Chemistry, Economics, and Mathematics should consult the appropriate section of the catalog for the required mathematics courses.
- Students majoring in communication (journalism and speech), fine arts, humanities (English, history and Spanish), political science, criminal justice and Sociology are strongly encouraged to take one of the following sets of Mathematics courses:

MATH 1332: Contemporary Mathematics I and MATH 1333: Contemporary Mathematics II

#### OR

MATH 1314: College Algebra and MATH 1342: Statistics.

Students should consult their advisor for the required mathematics sequence.

### Undergraduate Advising Information

The Arts and Sciences Advising Center, located in HPR 38, is open daily. Students who are undecided about their major or who have specific questions about the Core Curriculum or graduation requirements are welcome to visit the Advising Center. Students contemplating a specific major in Arts and Sciences or who have questions about degree requirements or career opportunities in a specific major, should visit an advisor in that department.

# Bachelor of General Studies Requirements

Total Semester Credit Hours = 120

The BGS degree is designed for self-motivated students who desire a broad arts and sciences degree with an interdisciplinary perspective. Instead of a pursuing a traditional major, the BGS student creates, with the consent of a faculty advisor, an individualized plan of study around a coherent interdisciplinary theme, period, set of problems, specialization, or perspective not currently available through the combining of a traditional major and minor. Information about possible interdisciplinary areas of concentration is available from the Advising Center in the College of Arts and Sciences.

Students interested in the BGS degree must have a 3.5 grade point average and are encouraged to apply for the program before the end of their sophomore year.

#### Degree Requirements

- A. University Core Curriculum (44 hrs.)
- B. BGS Requirements
  - BGS Core (42 hours, at least 36 upper division) Philosophy (3 hours)

History, English (9 hours)

Communication, Journalism (6 hours)

Fine Arts (6 hours)

Social Sciences or Psychology (9 hours)

Science, Mathematics, Computer Science (9 hours in at least two disciplines)

- 2. Interdisciplinary Area of Concentration (24-30 hours, at least 18 upper-division)
- 3. Capstone Senior Project: BGST 4200
- 4. Electives

#### 65-71 Sem. Credit Hrs.

Note: Courses taken in the BGS Core and Area of Concentration may not include Core Curriculum courses. A maximum of 9 hours of BGS Core may count in the Area of Concentration and vice versa.

# **Pre-Professional Programs**

#### Pre-Law

Total

The Pre-Law minor in Political Science is an 18-hour interdisciplinary minor designed to prepare students for the post-undergraduate study of law. It consists of 15 hours of required core courses and 3 hours from a list of selected electives. Courses taken to fulfill requirements for a major cannot be applied to the minor.

**PLEASE NOTE:** Students intending to apply to law school should not take **any** undergraduate course on Pass/Fail or CR/NC basis. Pass (P) is typically interpreted as a "C" or "D;" CR is typically interpreted as a "C;" and an NC as an "F."

 Core Courses: The following four courses, which develop communication and analytical skills, and one from the list of case law courses are required: ENGL 3308: Writing Literary Analysis

POLS 3321: Jurisprudence

CRIJ 3325: Law and Society

SPCM 3325: Persuasive Communication

Two from the following list of case law courses: POLS 4321: American Constitution

POLS 4322: The Law of Civil Liberties

CRIJ 3326: Criminal Law

CRIJ 4341: Criminal Procedure

JOUR 3318: Media Law and Ethics

GENB 3306: Business Law

B. Directed Electives: One course chosen from the following list. Any course substitutions will also be drawn from this list:

CRIJ 3326: Criminal Law

CRIJ 4341: Criminal Procedure

CRIJ 4345: Evidence

CRIJ 4350: Comparative Criminal Justice

CRIJ 4360: Topics in Criminal Justice

GENB 3306: Business Law

JOUR 3318: Media Law and Ethics

POLS 4320: The Judicial System and Process

POLS 4321: American Constitutional Law

POLS 4322: The Law of Civil Liberties

POLS 4350: International Law, Diplomacy and Organization

SOCI 3315: Social Stratification

SOCI 4311: Majority/Minority Relations Total

18 Sem. Credit Hrs.

### Pre-Medicine and Pre-Dentistry Programs

Since medical and dental schools in the United States accept few students without a degree and a strong basic science background, the College of Arts and Sciences offers two degrees for pre-medical and predental students:

- A. The Bachelor of Science with a major in biology and strong supporting work in chemistry, and
- B. The Bachelor of Science with a major in chemistry and strong supporting work in biology.

The University's Chief Health Professions Advisor is located in the Department of Biology. Students should examine the catalog of the medical or dental school they plan to attend to determine any specific admission requirements.

### **Pre-Theology**

Appropriate undergraduate majors for students who plan to pursue graduate work in theology include English, business, foreign language, history, psychology, sociology, speech and philosophy. The American Association of Theological Schools recommends course work in the following areas: English, foreign language, history, natural sciences, psychology, philosophy, religion, and social sciences.

Prospective theological students are advised to consult the catalogs of the theology schools they may wish to attend. In addition, students should consult the Director of the College of Arts and Sciences Advising Center.

# Minor in International Studies

The minor in international studies is designed to increase the global awareness and cross-cultural sensitivity of graduates. Students may focus on one of the three world regions: Latin America, Europe, or Asia.

The minor in international studies is an 18-hour program consisting of 1) a required core course, 2) one or two courses of upper-division directed electives dealing with global issues, 3) two courses in the world area of concentration, and 4) a travel-study course. If a student chooses not to concentrate in a world area, 9 hours must be taken from the list of directed electives. Courses taken to fulfill requirements for a major cannot be applied to the minor.

Students taking a minor in international studies must complete 6-8 hours in a modern foreign language before graduation. A student may demonstrate language proficiency by taking an examination in the chosen language.

A. Core course:

INTS 3300: Global Relations and Issues

- B. Directed Electives: (3-6 hours)
  - ANTH 4360: Topics in Anthropology

ART 3341: Art and Society: Ancient to Medieval

ART 3342: Art and Society: Renaissance to Modern

ART 4342: Non-Western Art

BIOL 4304: Biogeography

ECON 3305: Comparative Economic Systems

FINA 4350: International Finance

MANA 4310: International Management

GEOG 1313: World Regional Geography

- HIST 3301: Patterns of World History
- JOUR 4350: International Mass Media

POLS 3310: International Relations

SOCI 3321: Multi-Cultural Studies

- SOCI 3380: Population Problems
- SPCM 4331: Intercultural Communication

### C. Concentration area: (6 hours)

#### Asia

HIST 4393: Japanese Civilization

HIST 4394: Chinese Civilization

PHIL 4330: Comparative Religious Philosophy

#### Europe

ART 4343-4347: Greek and Roman, Medieval, Renaissance, Baroque and Rococo, and Nineteenth-Century Art ART 4349: Twentieth-Century Art ENGL 2362: World Literature Through the Renaissance

ENGL 2363: World Literature Since the Renaissance

HIST 3352 - 3359: Renaissance, Reformation, Early Modern, Revolutionary,

#### Nineteenth- and Twentieth-Century Europe

HIST 3395: History of Russia

POLS 3372: Politics of Russia and the CIS

POLS 3375: European Political Systems

SPAN 4331: Hispanic Culture and Civilization

#### Latin America

HIST 4391: Colonial Latin America

- HIST 4392: Modern Latin America
- POLS 3380: Politics of Latin America

SPAN 4331: Hispanic Culture and Civilization

SPAN 4365: Modern Latin-American Literature D. Travel-Study Experience: (3-6 hours)

Total

76 Sem. Credit Hrs.

# Department of Art and Art History

#### Gary C. Hatcher, MFA, Chair

#### Objectives

The Department of Art and Art History offers programs of study for those students wanting to pursue careers as professional artists as well as those seeking professions in the field of art. The curriculum and mode of operation within the Department of Art and Art History resemble a professional art school, with a broad-based liberal arts education. Students may select an emphasis in studio art, art education or art history.

The prospective major in art should be aware of marked differences in degree programs. Bachelor of Fine Arts in Art (B.F.A.) degree programs emphasize the creative disciplines of studio art and art education for the professional development of individual creative talent. The B.F.A. in Art degree is the preferred preparatory degree for students wanting to pursue studio art, art education and the Master of Fine Arts (M.F.A.) graduate degree and Master of Arts in Studio Art (M.A.). The Bachelor of Arts (B.A.), which includes a 12-hour foreign language requirement, provides the student with a broad liberal arts education as well as an expansive knowledge of the history of art. The Bachelor of Arts degree prepares students for graduate work in art history as well as careers in the art fields of curatorial, museum, gallery or collection management.

Students are encouraged to participate in the many activities, which the Department of Art and Art History sponsors including the Art Club, Visiting Artist Program, Exhibitions Program, Museum Internship Program, Travel Study and Art History Criticism Lecture Program.

Students should consult an art advisor in their first semester at UT Tyler to plan a course of study in art. A degree plan must be complete in consultation with an art advisor during the students first semester at UT Tyler. The Department of Art and Art History secretary should be consulted to find out which advisor has been assigned to the student.

#### **Options:**

- 1. Bachelor of Fine Arts in Art (B.F.A.) with emphasis in the following areas: Studio art, two-dimensional studio art, three-dimensional studio art, art history, or art education
- 2. Bachelor of Arts in Art (B.A.) with a concentration in art history, studio art, or art education.
- 3. Minor in Art
- 4. Teacher Certification leading to all-level certification (K-12) in Texas.

### Bachelor of Fine Arts in Art (B.F.A.) Requirements

#### Admission Requirements

Students wanting to pursue the B.F.A. degree program of study must, within the first nine hours of course work at UT Tyler, submit a portfolio to the Faculty Review Committee. Students who transfer with accepted credit hours of studio and want to pursue the B.F.A. degree program of study must, within the first semester of studio work at UT Tyler, submit a portfolio review to the Faculty Review Committee. Upon approval from the Faculty Review Committee, students will be admitted and may complete a B.F.A. degree plan with an undergraduate art advisor. If the student is denied entry into the B.F.A. degree program, they will be put on probationary status and may submit another portfolio the following semester. The portfolio reviews are conducted in the last month of each semester (December and April). The Faculty Review Committee, upon request from the student, may waive the review process. (Note: If, after two portfolio reviews, the student is not admitted to the B.F.A. degree program, course work done after the 18-hour review will not apply toward the B.F.A. in Art degree.)

# Bachelor of Fine Arts in Art (BFA)

Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade of "C" in each art course

- C. The following courses or equivalent
  - 1. Art Core Requirements: (39 hours)
    - ART 1311: Design I
    - ART 1312: Design II
    - ART 1316: Drawing I
    - ART 2303: Art History Survey I
    - ART 2304: Art History Survey II
    - ART 2379: Beginning Ceramics
    - ART 2316: Beginning Painting
    - ART 2333: Beginning Printmaking
    - ART 2326: Beginning Sculpture
    - ART 3320: Intermediate Life Drawing I
    - ART 3321: Intermediate Life Drawing II (or ART 4331 or 4320)
    - ART 3340: Aesthetics in Visual Learning
    - ART 3392: Professional Practices
  - 2. Upper Division Art History: (9 hours)
  - 3. Upper Division Studio: (27 hours in any of the areas below)
    - a. General Studio
    - b. Two-dimensional (painting, printmaking, etc.)
    - c. Three-dimensional (ceramics, sculpture, etc.) or
    - d. Art history
  - 4. ART 4192: Senior Exhibition

Total

For all degree programs the final thirty hours in art must be taken at UT Tyler. All transferred art courses must have the written approval of the art chair before being applied to a degree. Art 3310 and Art 3315 may be used for teacher certification option only.

**Note:** All transferred art courses must have the written approval of the art chair before being applied to degree.

### Bachelor of Arts (B.A.) in Art

Students interested in careers in the art fields of curatorial, museum, gallery or collection management should consider the Bachelor of Arts degree. with a concentration in art history Also, students wanting to continue graduate studies in art history after completing their undergraduate degree should select the Bachelor of Arts (B.A.) The two most significant differences between the B.A in Art and the B.F.A. in Art are the 12-hour foreign language requirement for the B.A. in Art and fewer studio art hours. Students should consult an art history advisor if considering the in Bachelor of Arts in Art.

#### Bachelor of Arts with Art History Concentration Total Semester Credit Hours=120

- A. University Core Requirements (44 hrs.)
- B. A minimum grade of 'C' in each art course
- C. Four semesters of an approved foreign language or demonstration of proficiency.
- D. The following courses or equivalent
  - 1. Art History Core Requirements: (9 hrs.)ART 2303: Art History Survey I3ART 2304: Art History Survey II3ART 3340: Aesthetics in Visual Learning3
  - 2. Foreign Language (12-16 hrs.)
  - 3. Upper-level Art History (30 hrs. minimum, at least 12 hours must be senior level)
  - Minor: Required and selected in related field with advisor approval (18 hrs.)
  - 5. ART 4192: Senior Exhibition/Thesis (1 hr.)

For all degree programs the final thirty hours in art must be taken at UT Tyler. All transferred art courses must have the written approval of the art chair before being applied to a degree. ART 3310 and ART 3315 may be used for teacher certification option only.

**Note:** All transferred art courses must have the written approval of art chair before being applied to degree. ART 3315 may be used for teacher certification option only.

### Minor in Art

Art may be chosen as a minor to satisfy bachelor's degree requirements in other fields. For a minor in art one must complete 18 hours in art, nine of which must be upper division. Courses should be selected in consultation with an art advisor.

### Teacher Certification in Art

All students wishing to be certified to teach art (EC-12) in Texas public schools must complete the Academic Foundations, Professional Development, the B.F.A or B.A. in Art, ART 3310 or 3315, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction. Those interested in obtaining all-level teaching certification to teach art should pursue the B.A. in Art or B.F.A. in Art with all-level teaching certification option. Art degrees with all-level teaching certification differ from art degrees without all-level teaching certification and students should consult their assigned advisor for details.

# Department of Biology

#### Dr. Don W. Killebrew, Chair

The Department of Biology offers the Bachelor of Science in Biology and courses leading to a minor in biology, and teacher certification in biology.

### Bachelor of Science in Biology Objectives

#### Objectives

The curriculum in biology is balanced between the scientific preparation to enter such fields as medicine, biotechnology, environmental science, teaching and postgraduate work in biology as well as the liberal arts preparation of a well-educated citizen. The biology program offers the student an opportunity to gain an appreciation of the biological world, to develop an inquisitive nature, and to think scientifically.

The biology program is designed to accomplish the above objectives through contact with specific biological content, exposure to laboratory experiences, and encouragement of the creative process and independent research. The degree program is flexible so that an individual can best prepare for a specific career. Examples of careers include biology, biotechnology, medicine, dentistry, veterinary medicine, and medical technology.

### **Biology High School Preparation**

Students desiring a major in biology are expected to have a strong high school background in science and mathematics as well as to have good writing skills. Calculus, biology, chemistry, and physics are disciplines the student should have studied in high school. Students who have not had these studies in high school may have additional prerequisite courses as part of their curriculum. Contact the chair of the Department of Biology for information and advisement.

#### **Options:**

The following options are available to a student interested in biology:

A. B.S. in biology- 41 hours of biology (at least 33 upper division); Calculus, physics, general chemistry, organic chemistry, biochemistry, and 3 hours of statistics or 4 hours of analytical chemistry.

- B. Minor in biology- 20 hours of biology, 12 of which must be upper division (selections approved by advisor)
- C. Teacher Certification.

### Bachelor of Science in Biology Requirements Total Semester Credit Hours = 120

- A. University Core Curriculum-(44 hrs.)
- B. 2.0 grade point average in all required upper-division courses attempted
- C. Lower division preparation (may be part of University Core) CHEM 1311/1111 and 1312/1112; MATH 2413 and 2414; PHYS 2325/2125 and 2326/2126
- D. Required Biology courses (41 hours including 33 hours of upper-division biology, 12 hours at this university)

1. Biology Core (22 hrs.)	
BIOL 1306/1106 and 1307/1107	8
(may be part of University core)	
BIOL 3332/3133	4
BIOL 3336/3137	4
BIOL 3334/3144	4
BIOL 4114 and 4115	2
2. Distribution Requirements (one course from each g	group)
Group I: BIOL 3345/3146; BIOL 3147/3348	4
Group II: BIOL 4330/4131; BIOL 4331/4132;	4
BIOL 4335/4136; BIOL 4335/4136; BIOL	
4340/4141; BIOL 4305/4105	
Group III: BIOL 4300/4101; BIOL 4302/4102	4
Group IV: BIOL 3343/3144; BIOL 3335/3135	4
Group V: BIOL 3338; BIOL 4304	3
E. Additional courses required for a B.S. in biology (15-16	hours)
CHEM 3342/3143 and 3344/3145	8
CHEM 4334/4135	4
CHEM 3310/3111 or MATH 1342	3-4

F. Electives

### Teacher Certification in Life Science or Science

All students wishing to be certified in life science (8-12) or science (4-8) in Texas public schools must complete the Academic Foundations, Professional Development, required science courses (8-12 requires completion of the Life Science Certification Option as described below), and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction.

#### Bachelor Science in Biology: Life Science Secondary Teacher Certification Option--Total Semester Credit Hours=126

- A. University Core Curriculum—(44 hrs.)
- B. 2.0 grade point average in all required upper-division courses attempted
- C. A grade of "C" or better in all courses used for certification
- D. Lower division preparation (32 hrs.; 14 hrs. of which are included in the University Core Curriculum)
   BIOL 1306/1106 and 1307/1107; CHEM 1311/1111 and 1312/1112; MATH 2413 and 2414; PHYS 1301/1101 and 1302/1102 or PHYS 2325/2125 and PHYS 2326/2126
- E. Upper division biology courses

epper arrision biology courses	
1. Biology Core (13 hrs.)	
BIOL 3332/3133	4
BIOL 3336/3137	4
BIOL 3334/3144	4
BIOL 4114	1
2. Distribution Requirements (one course from each	group)
Group I: BIOL 3345/3146; BIOL 3147/3348	4
Group II: BIOL 4330/4131; BIOL	4

4331/4132; BIOL 4335/4136; BIOL 4339/4140; BIOL 4340/4141	
Group III: BIOL 4300/4101; BIOL	4
4302/4102; BIOL 3343/3144; BIOL 3335/3135	
Group IV: BIOL 3338; BIOL 4304	3
E. Additional upper-division chemistry courses (11-12 hours)	
CHEM 3342/3143 and 3344/3145	4
CHEM 4334/4135	4
CHEM 3310/3111 or MATH 1342	3-4

### Special Requirements for all Lecture/Laboratory Courses

The department teaches lecture courses and related laboratory courses as units; they should be taken concurrently. If a student fails either course in such a lecture/laboratory combination, one course may be repeated without repeating the other. Students may not use as part of the degree

requirements a biology lecture course without the corresponding laboratory course (if one is available for that course) or a laboratory course without the corresponding lecture course, unless otherwise stated in the course description.

Students must pay for any broken or damaged equipment or glassware in science labs.

PRE-MEDICAL TECHNOLOGY (CLINICAL LABORATORY SCIENCES) See College of Nursing and Health Sciences

# Department of Chemistry

#### Dr. Donald L. McClaugherty, Chair

The Department of Chemistry offers the Bachelor of Science in chemistry, a minor in chemistry, a minor in physics, courses in geology, and teacher certification. The chemistry program is approved by the American Chemical Society.

### Bachelor of Science in Chemistry Objectives

#### Objectives

The chemistry program offers students an opportunity to acquire a solid fundamental understanding of chemical principles, to acquire basic laboratory skills, to develop skills in oral and written communication and the use of the chemical literature, to gain an appreciation of chemistry, to develop critical thinking and logical reasoning, to use the scientific method, and to develop an ability to learn and work independently that will prepare them for advanced studies and successful careers in industry, medical professions, government, and education.

The chemistry curriculum is designed to accomplish the above objectives through contact with specific chemistry content, exposure to laboratory experiences, and encouragement of the creative process and independent research. The degree program is flexible so that an individual can best prepare for his or her specific career. Students are encouraged to choose supporting work and electives which reinforce their knowledge of chemistry. Students who receive a Bachelor of Science degree in chemistry and complete the curriculum approved by the American Chemical Society (ACS) graduate as ACS-certified chemists.

### **Chemistry High School Preparation**

Students majoring in chemistry are expected to have a strong high school background in science and mathematics as well as good writing skills. Students who have not had calculus, biology, chemistry, and physics in high school may have additional prerequisites as part of their curriculum. Contact the chair of the Department of Chemistry for information.

### Bachelor of Science in Chemistry Requirements Total Semester Hours=120

- A. University Core Curriculum 44 hrs.
- B. A minimum grade of "C" in all chemistry courses.
- C. Completion of BIOL 1306/1106, BIOL 1307/1107, MATH 2413, MATH 2414, MATH 3203, MATH 3404, PHYS 2325/2125, and PHYS 2326/2126.
- D. Completion of 49 semester hours of chemistry. Twelve semester hours of upper-division chemistry must be completed at this university. Chemistry courses required:

Total	49 Credit Hrs.
CHEM 4191	<u>1</u>
CHEM 4346	3
CHEM 4240	2
CHEM 4334/4135	4
CHEM 4330	3
CHEM 4312/4112	4
CHEM 3352/3153, CHEM 3354/3155	8
CHEM 3342/3143, CHEM 3344/3145	8
CHEM 3320/3121	4
CHEM 3310/3111	4
CHEM 1311/1111, CHEM 1312/1112	8

E. Approved lower and upper-division electives selected with the student's career goals in mind. Suggested electives include courses in chemistry, biology, mathematics, computer science, statistics, education, speech, technical writing, technology, economics, psychology, sociology, and business administration.

Preparation for careers in specialized areas of chemistry is possible by careful selection of supporting areas of concentration. A partial list of specialized chemistry careers includes chemical business, environmental chemistry, forensic science, pre-law (chemical patents), health professions (pre-medical and pre-dental), technical writing, biotechnology, and chemical technology. Students should confer with the academic advisor of the department in regard to such options and their career goals.

### Bachelor of Science in Chemistry--Biochemistry Option

Total Semester Hours=120

- A. University Core Curriculum 44 hrs.
- B. A minimum grade of "C" in all chemistry courses.
- C. Completion of BIOL 1306/1106, BIOL 1307/1107, MATH 2413, MATH 2414, MATH 3404, PHYS 2325/2125, and PHYS 2326/2126.
- D. Completion of 49 semester hours of chemistry.

Twelve semester hours of upper-division chemistry must be completed at this university. Chemistry courses required:

Total	49 Credit Hrs.
CHEM 4191	<u>1</u>
CHEM 4336	3
CHEM 4240	2
CHEM 4334/4135	4
CHEM 4330	3
CHEM 4312/4113	4
CHEM 3352/3153, CHEM 3354/3155	8
CHEM 3342/3143, CHEM 3344/3145	8
CHEM 3320/3121	4
CHEM 3310/3111	4
CHEM 1311/1111, CHEM 1312/1112	8
this university. Chemistry courses required.	

- E. 8 hours of biology (lab/lecture) chosen from BIOL 3334/3134, BIOL 3332/3133, or BIOL 4300/4101
- F. Approved lower and upper-division electives selected with the student's career goals in mind. Suggested electives include courses in chemistry, biology, mathematics, computer science, statistics, education, speech, technical writing, technology, economics, psychology, sociology, and business administration.

Preparation for careers in specialized areas of chemistry is possible by careful selection of supporting areas of concentration. A partial list of specialized chemistry careers includes chemical marketing, chemical business, environmental chemistry, forensic science, pre-law (chemical patents), health professions (pre-medical and pre-dental), technical writing, biotechnology, and chemical technology. Students should confer with the academic advisor of the department in regard to such options and their career goals.

### Teacher Certification in Chemistry

All students wishing to be certified to teach chemistry (8-12), or science (4-8) in Texas public schools must complete the Academic Foundations, Professional Development, required science courses (8-12, see curriculum below), and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information, see a consultant in the Department of Curriculum and Instruction and Educational Foundations.

# Bachelor Science in Chemistry: Teacher Certification Option--Total Semester Credit Hours=128

- A. University Core Curriculum-(44 hrs.)
- B. A grade of "C" or better in all chemistry courses.
- C. Completion of BIOL 1306/1106 and 1307/1107; MATH 2413, 2414, and 3404; PHYS 2325/2125 and PHYS 2326/2126
- D. Completion of 44 semester hours of chemistry. Twelve semester hours of upper-division chemistry must be completed at this university.

Chemistry courses required:	
CHEM 1311/1111 and 1312/1112	8
CHEM 3310/3111	4
CHEM 3320/3121	4
CHEM 3342/3143, CHEM 3344/3145	8
CHEM 3352/3153, CHEM 3354/3155	8
CHEM 4312/4112	4
CHEM 4330	3
CHEM 4334/4135	4
CHEM 4191	1

E. Approved lower and upper-division electives selected with student's career goals in mind. Suggested electives include courses in chemistry, biology, mathematics, computer science, statistics, education, speech, technical writing, technology, economics, psychology, sociology, and business administration.

### Minor in Chemistry

A student may choose chemistry as a minor to satisfy bachelor's degree requirements with a major in another field. The minor requires a total of 24 semester hours of chemistry, with a minimum of a "C" in all courses. Required courses include CHEM 1311/1111, CHEM 1312/1112; CHEM 3310/3111, CHEM 3342/3143, CHEM 3344/3145; and either CHEM 3320/3121 or CHEM 4334/4135.

### Minor in Physics

A student may choose a minor in physics to satisfy bachelor's degree requirements with a major in another field. The minor requires a total of 18 semester hours of physics with a minimum grade of "C" in all courses. The student must take PHYS 2325/2125, PHYS 2326/2126, and PHYS 3101 for 9 semester hours. The remaining semester hours can be earned by taking any three of the following four courses: PHYS 3310, PHYS 3320, PHYS 4330, or PHYS 4340.

# Special Requirements for Lecture/Laboratory Courses

The department teaches lecture courses and related laboratory courses as units taken concurrently. If a student fails either course in such a lecture/laboratory combination, it may be repeated without repeating the other. No student may use as part of his or her degree requirements a chemistry lecture course without the corresponding laboratory course (if one is available for that course) or a laboratory course without the corresponding lecture course, unless otherwise stated in the course description.

Students will pay for any broken or damaged items of equipment or glassware in science labs.

# Department of Communication

#### Dr. Dennis Cali, Chair

The Department of Communication offers bachelor degrees in journalism and speech communication, elective courses in journalism and speech communication, and supplementary programs for undergraduates in other disciplines. At the graduate level, the department offers the Master of Arts in Communication degree.

The study of communication has assumed fundamental significance as society accelerates into the information age and has implications for all fields of study. For that reason, a minor in communication is an excellent choice for students in any field. It is especially valuable for students undecided on a major since knowledge, skills, and abilities in the communication process will be useful wherever people interact.

The Department of Communication attempts to produce students who have an appreciation for all aspects of communication, as well as a broad understanding of the process by which shared meanings are created. The department's goal is to prepare students with specific skills as communicators within the broader context of a liberal arts tradition.

Each specific degree program is tailored to the individual student's interests and abilities. For communication students, the department offers the student an opportunity to develop effective communication skills through courses in rhetoric and public address, interpersonal and small group communication, organizational communication, public relations, electronic photography/publishing, and print/broadcast journalism.

Students are encouraged to participate in departmental and university programs such as the University Debate Team, the UT Tyler *Patriot Talon* campus newspaper, and the national honorary forensics society Pi Kappa Delta.

### Bachelor of Arts/or Science in Journalism Objectives

#### Objectives

The study of journalism at The University of Texas at Tyler prepares students for careers in news reporting and editing for newspapers, television, public relations, and other mass media. The department's graduates usually take jobs with businesses, government agencies, professional, and non-profit organizations. Other graduates enter advertising or areas of specialized communication such as writing about medicine, technology, or business. Still others are choosing careers in "new media" - interactive computer systems, and information distribution. The journalism major also is excellent preparation for law school.

The department offers the B.A. and B.S. in Journalism and the Master of Arts in Communication. The B.A. requires a foreign language sequence. The B.S. requires a set of courses in geography, economics, computer science, mathematics and/or science in place of the foreign language.

The study in journalism should be part of a broad and flexible education and the total educational experience is more important than any single part of it. Accordingly, more than seventy percent of a major's work must be done outside of journalism.

Students desiring teacher certification in journalism for Texas secondary schools must meet additional requirements that vary according to whether journalism is their first or second teaching field.

### Options

- A. B.A. in Journalism: 36 hours in journalism, 24 of which must be upper division; 18 hours in a minor; four semesters of a foreign language.
- B. B.S. in Journalism: 36 hours in journalism, 24 of which must be upper division; 18 hours in a minor; six hours of mathematics, science, economics, geography and/or computer science, in addition to those otherwise counted as lower-division preparation
- C. Minor in Journalism: 18 hours in journalism, 12 of which must be upper division
- D. Teacher Certification

### Bachelor of Arts/ or Science in Journalism Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade of "C" in all journalism courses
- C. 36 hours of journalism, 24 of which must be upper-division, and 12 must be taken at UT Tyler.
  - 1. Journalism Core: (12 hours)

JOUR 2306: Media Design and Production \*

JOUR 2307: Mass Media and Society\*\*

JOUR 2311: Writing for the Mass Media\*\*

JOUR 3318: Mass Media Law and Ethics

JOUR 3385: History of Mass Media

\*Students demonstrating competency may substitute an additional three hours of journalism electives

\*\*must be taken within the first nine (9) hours of journalism courses.

#### 2. Journalism Option: (15-18 hours)

News/Editorial Option (15 hr.)

JOUR 3301: Feature Writing

JOUR 3312: Production Design

JOUR 3303: Reporting/News Writing

JOUR 4300 Opinion Writing

or JOUR 4325 R-TV News Writing

### JOUR 4332 Advanced News Writing

#### Public Relations Option (18 hrs.)

JOUR 3340 Principles of Advertising

JOUR 3311 Visual Design

JOUR 3375 Principles of Public Relations

JOUR 3395 Writing for P.R. and Adv.

JOUR 4363 P.R. & Adv. Case Studies

JOUR 4365 P.R. and Adv.. Campaigns

3. Upper-division Journalism Electives (3-6 hours) Total: 36 Sem. Credit Hrs.

 D. Outside Required Courses: 6 hours from the following: SPCM 1315: Fundamentals of Speech Communication ECON 1301: Introduction to Economics ECON 2301: Principles of Economics I POLS 3310: International Relations

MANA 3311: Organization Theory and Behavior

MARK 3311: Principles of Marketing

GEOG 1313: World Regional Geography

ANTH 3330: Cultural Anthropology

F. Minor –at least 18 hrs. in a single related discipline to be chosen in consultation with the student's major advisor.

### Bachelor of Science in Journalism

#### Total Semester Credit Hours=120

The B.S. degree requirements in journalism are the same as those for the B.A. degree except that instead of a foreign language requirement, the student is required to take six hours of mathematics, science, economics, geography and/or computer science, in addition to those otherwise counted in the Core Curriculum. These six hours may be taken at the lower- or upper-division.

### Minor in Journalism

Journalism may be chosen as a minor to satisfy bachelor degree programs with majors in other fields. This program requires 18 hours of journalism, 12 of which must be upper division. Courses are selected by the student in consultation with a member of the Department of Communication.

### Teacher Certification in Journalism

All students wishing to be certified to teach journalism (8-12) in Texas public schools must complete the Academic Foundations, Professional Development , the B.A./B.S. requirements for the Journalism degree, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction.

### Bachelor of Arts/or Science in Speech Communication Objectives

#### Objectives

Whether one seeks a career in teaching, law, the ministry, business, government, the arts, or social services, the ability to communicate is essential to success. The speech communication program offers the student an opportunity to develop effective communication skills through courses in rhetoric and public address, interpersonal and small group communication, business and professional communication, and communication theory.

#### Options

- A. B.A. in speech communication: 36 hours in speech communication, 21 of which must be upper division, and 12 upper division hours in the major must be taken at this university; 18 hours in a minor; and four semesters of a foreign language
- B. B.S. in speech communication: 36 hours in speech communication, 21 of which must be upper division and 12 upper division hours in the major must be taken at this university; 18 hours in a minor; and six hours of mathematics, science, economics, geography and/or computer science, in addition to those otherwise counted as lower-division preparation
- C. Speech communication as a minor: 18 hours of speech communication, 12 of which must be upper division
- D. Teacher Certification

### Bachelor of Arts/ or Science in Speech Communication Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade of "C" in each speech communication course
- C. Thirty-six semester hours of speech communication, 21 of which must be upper division, and at least 12 upper division hours in the major must be taken at this university:

E. Electives —including 4 semesters of foreign language

- Speech Communication Core (18 hrs.) SPCM 2318 SPCM 3322 SPCM 4315 or 4330 SPCM 4320
  - Six hours from: SPCM 1315, 2335, 3321, 4326
- 2. 18 hours of additional SPCM courses
- D. Electives
- E. Minor: At least 18 hrs. in a single related discipline to be chosen in consultation with the student's major advisor.
- F. Four semesters of an approved foreign language: The student may also complete this requirement by passing a written examination approved by the foreign language faculty.

# Bachelor of Science in Speech Communication

#### Total Semester Credit Hours=120

The B.S. degree requirements in speech communication are the same as those for the B.A. degree except that instead of a foreign language requirement, the student is required to take six hours of mathematics, science, economics, geography and/or computer science, in addition to those otherwise counted as lower-division preparation. These six hours may be taken at the lower- or upper-division.

### Minor in Speech Communication

Speech communication may be chosen as a minor to satisfy certain bachelor degree programs with majors in other fields. This program consists of 18 semester hours in speech communication, at least nine of which must be upper division.

### **Teacher Certification in Speech**

All students wishing to be certified to teach speech (8-12) in Texas public schools must complete the Academic Foundations, Professional Development, the B.A./B.S. in Speech Communication degree including SPCM 3321 and 4301, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction.

## Department of History

#### Dr. Mary Linehan, Chair

The Department of History offers courses leading to undergraduate degrees in history and teaching specializations in history (8-12) and social studies (4-8) and 8-12). The department also provides a minor and elective courses in history for undergraduates who major in other disciplines.

Students are encouraged to become involved in campus organizations such as the Frank H. Smyrl chapter of the Walter Prescott Webb Historical Society; and the Psi Alpha chapter of Phi Alpha Theta, the history international honor society.

### Bachelor of Arts/or Science in History Objectives

#### Objectives

The history program provides each student the opportunity to pursue a broad based liberal arts program that best suits individual intellectual interests and career goals. Programs are designed for careers in a variety of fields, including elementary, secondary, and higher education; law; the ministry; library and archival work; business; and government.

#### Bachelor of Arts/ or Science in History Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.) Including 6 hrs. Of Literature Survey
- B. A minimum grade point average of 2.0 in all history courses taken
- C. A minimum of 36 semester hours in history, 24 of which must be upper division, and 6 upper-division hours in the major must be taken at this university:
  - 1. HIST 1301 and HIST 1302 United States History I 6 and II
  - 2. HIST 2321 and HIST 2322 World Civilization I and II
  - 3. HIST 3300 Historical Methods and Research
  - upper-division world history courses (6 hours from the following)
     HIST 3301, HIST 3382, HIST 3395, HIST 4377,
    - HIST 4391, HIST 4392, HIST 4393, HIST 4394,
    - HIST 4395, or when applicable HIST 4397
  - 5. upper-division European history courses (6 hours from 6 the following)

HIST 3352, HIST 3353, HIST 3354, HIST 3356, HIST 3357,

HIST 3358, HIST 3359, HIST 3383, HIST 3395, or

when applicable HIST 4397

6. upper-division United States history courses (9 hours 9 from the following)

HIST 4320, HIST 4322, HIST 4323, HIST 4331, HIST 4332,

HIST 4333, HIST 4334, HIST 4371, HIST 4372, HIST 4376,

HIST 4377, HIST 4379, HIST 4384, HIST 4385, HIST 4386,

HIST 4387, HIST 4388, HIST 4389, or when

applicable HIST 4397 **Total:** 

#### 36 Sem. Credit Hrs.

3

- D. A minor of at least 18 hours in a single related discipline or at least 18 hours of guided electives to be chosen in consultation with the student's advisor.
- E. Electives

FOR THE BACHELOR OF ARTS DEGREE: At least four semesters, or demonstrated reading knowledge, of a single foreign language FOR THE BACHELOR OF SCIENCE DEGREE: Six hours from economics and/or geography.

### Minor in History

History may be chosen as a minor to satisfy requirements for certain bachelor's degree programs with majors in other fields. This program consists of 18 semester hours in history, at least nine of which must be upper-division. Of these, three should be in United States history and three in world or European history.

### Minor in Social Studies

A minimum of 18 semester hours, 9 of which must be upper division, as follows:

POLS 3310, 3375, 3370, 3390, or 4350	3
ECON 2301 and 2302	3
GEOG 3320, 3325, or ECON 3305	3
GEOG 1313	3
SOCI 3321, 3341, or ANTH 3330	3

### Teacher Certification (History and Social Studies)

All students wishing to be certified to teach history (8-12) in Texas public schools must complete the Academic Foundations, Professional Development, the B.A. or B.S. in History degree requirements, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog.

All students wishing to teach social studies (4-8 and 8-12) in Texas public schools must complete the Academic Foundations, Professional Development, and the required social studies content courses. For 8-12 certification, students must complete the B.A./B.S. in History or the B.S. in Political Science, and the required social studies content courses, which can be found in the Certification section of the catalog. For further information see a consultant in the Department of Curriculum and Instruction.

## Department of Literature and Languages

#### Dr. Hui Wu, Chair

The Department of Literature and Languages offers courses leading to undergraduate degrees in English and Spanish; teaching specializations in English language arts and reading and Spanish. The department also provides elective courses in English, French, Latin, Spanish, Chinese, Japanese, and Philosophy, and theatre as well as children's and adolescent literature courses for elementary education students. At the graduate level, the department offers the Master of Arts degree in English and participates in the Master of Arts in interdisciplinary studies.

Students are also encouraged to become involved in campus organizations such as Sigma Tau Delta and Sigma Delta Pi, national honor societies in English and Spanish, respectively, as well as Thirteen Ways and the Rosalis Montgomery Players, the campus literature and theatre groups.

#### Mission

The Department of Literature and Languages strives to expand students' awareness of, and sensitivity to, the diversity of human beings as expressed in their literatures, languages, ideas, values, and philosophies. Through the teaching of English, world languages, and philosophy, the department aims to enhance student abilities of critical reading, thinking, and writing in the evaluation of fundamental assumptions and concepts that shape language uses and discourse formation. By enhancing the quality of faculty, the curricula, the effectiveness of its support services, and the quality of its graduates, the department ties its mission to the University's mission to foster students' intellectual growth, competent and ethical professionalism, understanding of their place in a global society, and role as responsible citizens.

### Bachelor of Arts in English Objectives

#### Objectives

The English program seeks to graduate students who have mastered the principles of grammar and composition, who have a sound knowledge of the development of literature and intellectual culture, who comprehend the physical and intellectual demands required of the author, who have the ability to interpret individual literary works intelligently, and who understand how literature influences culture across both time and space. Programs are designed for students preparing for careers in a variety of fields—including elementary, secondary and higher education; journalism; communications; advertising; social work; publishing; theatre; theology; law; and government.

#### Options

- A. B.A. in English: six hours of English Composition from the University Core Curriculum requirements, six hours of lower-division literature survey courses, 30 hours as specified, 18 hours in a minor, and four semesters of a foreign language
- B. Minors in English, Classical Studies, Medieval and Renaissance Studies, English as a Second Language, and Theatre Studies: 18 hours for each program
- C. Teacher Certification

#### Bachelor of Arts in English Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs., including 6 hours of literature survey)
- B. A minimum grade of "C" in English courses
- C. Thirty semester credit hours as specified below, including at least 12 hours at this university:
  - Writing about literature and either grammar, history of English, the nature of language, or rhetoric: ENGL 3308 and either 3375, 3385, 4376 or 4380
  - British, World, or American Literature from the early or early modern periods: ENGL 4300, 4305, 4310, 4315, 4345, 4348, 4360(early texts), 4362
  - British or American Literature from the modern periods: ENGL 4320, 4325, 4330, 4335, 4348, 4350, 4355, or 4360 (later texts)
  - 4. Literature specialization classes: ENGL 3314, 4300, 9 4305, 4310, 4315, 4320, 4325, 4330, 4335, 4341, 4345, 4348, 4350, 4355, 4360, 4362, 4365, and 4380
  - 5. Senior Seminar: ENGL 4397 3 Total: 30 Sem. Credit Hrs.
- D. Four semesters of a single approved foreign language or the demonstration of equivalent competency. The student may also complete this requirement by passing a written examination approved by the foreign language faculty
- E. A minor of at least 18 hours in a related discipline chosen in consultation with the student's advisor
- F. Electives

### Minor in Classical Studies

This program requires a total of 18 semester hours, 12 of which must be upper division. All students who minor in Classical Studies must take LATN 2301, LATN 2302, and ENGL 4362. Students may then select 9 hours from the following: ART 4343, LATN 3305, LATN 4399 (when available), HIST 3382 HIST 4397 (with approval of advisor), PHIL 3330, POLS 3350, and THTR 3329.

### Minor in Medieval and Renaissance Studies

This minor may be chosen to satisfy bachelor's degree requirements in other fields. The program requires a total of 18 hours in the field, 12 of which must be upper division (appropriate lower division courses will need to cover some combination of the Medieval and/or Renaissance periods, e.g., ART 2303, ENGL 2322, ENGL 2362, HIST 2321 and other courses with consent of the advisor). No more than 9 hours can be taken in any one discipline, and courses must be different that those used to fulfill major requirements. The minor must include either POLS 3361 or PHIL 3330. Other courses are selected in consultation with an advisor.

### Minor in Philosophy

Philosophy may be offered as a minor to satisfy requirements for certain bachelor's degree programs with majors in other fields. This program consists of 18 semester hours in philosophy, at least 12 of which must be upper division.

# Teacher Certification in English Language Arts and Reading Teacher

All students wishing to be certified to teach English Language Arts and Reading (4-8 and 8-12) in Texas public schools must complete the Academic Foundations, Professional Development, required English language arts and reading courses (8-12 requires completion of the B. A. in English), and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction.

### Bachelor of Arts in Spanish Objectives

#### Objectives

A major in Spanish fosters the development of analytical and communicative skills that uniquely prepare students for our increasingly diverse national culture and global economic system. The Spanish program offers language instruction at the beginning, intermediate, and advanced levels. Courses are also offered in the literatures of Spain and Spanish America as well as Hispanic culture. Upon completing the program, the student will possess a strong understanding of the language, culture, and literatures of more than three hundred million people worldwide. Careers may be pursued in a variety of fields including elementary, secondary, and higher education; social work; communications; and government.

#### Options

- A. B.A. in Spanish: 38 hours, or the equivalent, in Spanish, and 18 hours in a minor
- B. Minor in Spanish: 18 hours of Spanish
- C. Teacher Certification

#### Bachelor of Arts in Spanish Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade point average of 2.0 in Spanish courses, including a 2.0 average at this university
- C. A minimum of 38 hours in Spanish, 24 of which must be upper-division hours in Spanish, and at least 12 of which must be taken at this university, as follows: SPAN 1413, 1414: Beginning Spanish SPAN 12311, 2412 Beginning Spanish

Total	38 Sem. Credit Hrs.
Senior Seminar: SPAN 4397	3
4370, 4390, 4668	
SPAN 3350, 3355, 4352, 4360, 4364, 4365, 4368,	
Spanish electives:	6
SPAN 3345: Introduction to Hispanic Literature	3
SPAN 4385: Spanish for Oral Proficiency	3
SPAN 4331: Hispanic Culture and Civilization	3
SPAN 4310: Advanced Grammar	3
SPAN 3335: Writing Proficiency in Spanish	3
SPAN 2311, 2312: Intermediate Spanish	6

- D. A minor of at least 18 hours in a related discipline chosen in consultation with the student's advisor and the department offering the minor. At least six hours in the student's minor must be taken at this university.
- E. Electives

### Minor in Spanish

Spanish may be chosen as a minor to satisfy certain programs with majors in other fields. This program consists of 18 semester hours in Spanish, 12 of which must be upper-division. Courses are selected by the student in consultation with a member of the Spanish faculty.

### Teacher Certification in Spanish

All students wishing to be certified to teach Spanish (EC-12) in Texas public schools must complete the Academic Foundations, Professional Development, the B.A. in Spanish, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog.

### Other Course Descriptions

Although UT Tyler does not offer a generic foreign language degree or degrees in French, German, or Latin, courses are offered as electives for students majoring in other disciplines.

# Department of Mathematics

#### Dr. Sheldon Davis, Chair

The Department of Mathematics offers the Bachelor of Science degree in mathematics and elementary and secondary certification in mathematics.

### Bachelor of Science in Mathematics Objectives

#### Objectives

The mathematics program offers the student an opportunity to gain an appreciation of the artistic nature of mathematics, to solve problems analytically, to acquire a firm foundation for advanced study, to acquire training for teaching, and an opportunity to acquire knowledge useful to a person entering scientific or business fields for which mathematics is necessary for efficient performance. The mathematics curriculum is designed to accomplish the above objectives through exposure to specific mathematical content, development of logical reasoning, and encouragement of the creative process and independent research. The degree program is flexible so that an individual can best prepare for his or her specific career. Students are encouraged to choose supporting work and electives which apply and reinforce their mathematical skills.

### Mathematics High School Preparation

Students desiring to major in mathematics should have completed four years of mathematics in high school, including precalculus and at least three years of science in high school. Students who have not completed this preparation may have additional prerequisite courses as part of their curriculum. Contact the chair of the Department of Mathematics for information and advisement.

### Bachelor of Science in Mathematics Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. Grade of "C" or better in all mathematics courses completed.
- C. A total of 50 semester hours of mathematics completed, including 40 semester hours of upper-division mathematics, nine semester hours of mathematics at this university.
  - 1. Each student seeking a baccalaureate degree with a major in mathematics must complete the following specific requirements (41 hours)

	MATH 2413: Calculus I (lower division)	4
	MATH 2113: Calculus I Lab	1
	MATH 2414: Calculus II (lower division)	4
	MATH 2114: Calculus II Lab	1
	MATH 3315: Linear Algebra and Matrix Theory	3
	MATH 3404: Multivariate Calculus	4
	MATH 3104: Multivariate Calculus Lab	1
	MATH 3305: Ordinary Differential Equations	3
	MATH 3425: Foundations of Mathematics	4
	MATH 3345: Real Analysis I	3
	MATH 3336: Abstract Algebra I	3
	MATH 3373: Applied Mathematics I	3
	MATH 3380: Algorithms in Applied Mathematics	3
	MATH 4160: Senior Seminar	1
	MATH 4350: Theory of Probability	3
2.	One course from the following:	
	MATH 4336: Abstract Algebra II	3
	MATH 4341: Real Analysis II	3

MATH 4342: Introduction to Complex Variables	3
3. One course from the following:	
MATH 4351: Applied Statistics	3
MATH 4373: Applied Mathematics II	3
MATH 4380: Modeling and Numerical Analysis	3
4. One additional upper-division mathematics course	
a. students seeking teacher certification (8-12): MATH	
3365: Geometric Systems	
b. all other students may take any upper-division course	
except MATH 3203 and 3351	
Total: 50 Sem. Cr	edit Hrs.

#### 50 Sem. Credit Hrs.

D. Eighteen semester hours of approved electives in a related discipline or disciplines: at least nine semester hours must be at the upper division and at least six semester hours must be completed at UT Tyler.

#### Minor in Mathematics

A student may choose mathematics as a minor to satisfy bachelor degree programs with a major in another field. This program requires a total of 18 hours of mathematics, including MATH 2413, 2113, and 2414. At least nine semester hours of upper-division mathematics must be completed, including MATH 3425.

### Teacher Certification in Mathematics

All students wishing to be certified to teach mathematics (8-12) in Texas public schools must complete the Academic Foundations, Professional Development and required mathematics courses for the B.S. in Mathematics, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see an advisor in the School of Education.

### Department of Political Science

#### Dr. Marcus Stadelmann, Chair

The Department of Political Science offers both Bachelor of Arts and Bachelor of Science degrees in Political Science, as well as minors in International Relations and Political Science.

### Bachelor of Arts/ Science in Political Science Objectives

#### Objectives

The Department of Political Science provides a comprehensive understanding of the problems and processes of politics. In addition to acquiring critical writing, communications, and analytical skills, political science majors master the political institutions of both Texas and the United States, explore the intricacies of international relations and foreign policy, compare political systems, gain experience with the law, and are challenged by the basic philosophical questions of political existence.

A field of great breadth and diversity, political science is a very popular undergraduate major. Curricula promote critical thinking, ethics, citizenship skills, an understanding of cultural and social diversity within the national and international context and communication and technological skills.

A degree in political science is excellent preparation for a career in law or political analysis. Political science majors qualify for public sector careers in local, state and federal governments, international organizations, and precollege and college teaching, as well as careers in journalism, finance, political campaigns, and interest groups and organizations. Training in political science further provides outstanding preparation for participation in community organizations, electoral politics, social and political movements, and elected or appointed positions in government.

### Bachelor of Arts/ Science in Political Science Requirements

#### Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade-point average of 2.0 in upper-division courses in political science, including a 2.0 average in a minimum of 12 upper division hours taken in the major at this university. No grade below a "C" in Political Science will be accepted toward the degree.
- C. A minimum of 36 semester hours in political science, of which 30 must be upper division, as follows:
  - 1. POLS 2305 and 2306: U.S. and Texas Government
  - 2. Political Theory: (3 hours)

POLS 3360, 3361, 3362, 4353, 4360 or (when applicable) 4365

- 3. American Politics: (6 hours) POLS 3330, 3335, 4320, 4330, 4340, 4355, or (when applicable) 4365 4. Comparative Politics: (3 hours)
- POLS 3370, 3372, 3375, 3380, 3385, or (when applicable) 4365 5. International Politics: (3 hours)
- POLS 3310, 3315, 3390, 4310, 4315, or (when applicable) 4365 6. Public Administration and Policy: (3 hours)
- POLS 3340, 3345, 4335, 4345, 4349 or (when applicable) 4365 7. Legal Studies: (3 hours)
- POLS 3321, 4321, 4322, or (when applicable) 4365
- 8. Methodology: (3 hours) POLS 4396 or SOCI 3396 or equivalent
- 9. Upper-division political science electives (6 hours)

#### Total:

#### 36 Sem. Credit Hrs. D. A minor of at least 18 hours, chosen in consultation with an advisor in

the minor discipline.

E. Electives

FOR THE BACHELOR OF ARTS DEGREE: At least four semesters of a single foreign language or a satisfactory grade on a written examination approved by the foreign language faculty

FOR THE BACHELOR OF SCIENCE DEGREE: Six hours from economics, geography, and/or computer science in addition to those otherwise counted as lower-division preparation.

### Minor in International Relations

The International Relations minor provides intensive study of the dynamic forces and trends that characterize the contemporary political and economic world, and the impact of those forces within and across national boundaries. The minor consists of 18 semester credit hours as follows: Political Science courses:

- A. three hours from: POLS 3310, 3315, 3390, 4310, 4315 and 4350;
- B. three hours from: POLS 3370, 3372, 3375, 3380, and 3385;
- C. three additional hours from A) or B) above;
- Elective courses:
- D. nine semester credit hours chosen from

ANTH 3330: Cultural Anthropology

- CRIJ 4350: Comparative Criminal Justice
- ECON 3305: Comparative Economic Systems
- ECON 4330: International trade
- FINA 4350: International Finance and Multinational Business
- GEOG 1313: World Regional Geography
- MANA 4310: International Business
- SOCI 3321: Multicultural Studies
- HIST 3359: Twentieth-Century Europe
- HIST 3395: History of Russia

HIST 4392: Modern Latin America

HIST 4393: Japanese Civilization

HIST 4394: Chinese Civilization

HIST 4395: Modern Middle East

Additional courses may be substituted in item D with the approval of the Political Science Chair.

### Minor in Political Science

Political science may be chosen as a minor to satisfy requirements for certain bachelor's degree programs with majors in other fields. This program consists of 18 semester hours in political science, at least twelve of which must be upper division. These upper-division hours should include one or more courses in any three of the following categories: (1) theory and methodology (2) American politics (3) comparative and international politics, and (4) public administration, policy, and law.

### Teacher Certification in Social Studies

All students wishing to be certified to teach social studies (4-8 or 8-12) in Texas public schools must complete the Academic Foundations Professional Development, required social studies courses, and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. In addition, certification at the 8-12 level requires completion of the B.A./B.S. in History or Political Science.

For all components of the social studies teaching specialization, see the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction.

# Department of Social Sciences

#### Dr. Ken Wink, Chair

The Department of Social Sciences offers courses leading to undergraduate degrees in criminal justice, economics, and sociology; courses leading to minors in geography and anthropology; and elective courses for undergraduate students in other disciplines. At the graduate level, the department offers the Master of Science in Criminal Justice, Master of Science in Sociology, Master of Public Administration and participates in the Master of Arts/Science degree programs in interdisciplinary studies.

#### Objectives

The Department of Social Sciences offers undergraduate and graduate degrees in an interdisciplinary setting. Through teaching, research and service, the department faculty prepares students for continued graduate education, for employment in business, government and the professions, and for an appreciation and understanding of theirs and others' societies. Curricula promote critical thinking, ethics, citizenship skills, an understanding of cultural and social diversity within the national and international context and communication and technological skills. The overall goals are to provide students with skills for life-long learning and to contribute to scholarship for the advancement of knowledge.

### Bachelor of Science in Criminal Justice Objectives

#### Objectives

Major objectives of the criminal justice program are to offer students an opportunity to prepare for professional careers in criminal justice, to provide an opportunity for persons currently serving in the criminal justice system to continue their education, to provide courses of instruction that complement the education received by students in related disciplines, and to foster an understanding of the role and function of the criminal justice system.

# Bachelor of Science in Criminal Justice Requirements

Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. No grade below a "C" in criminal justice courses will be accepted toward the degree.
- C. A minimum of 21 semester hours of upper-division criminal justice courses as follows:
  - 1. Ethical Issues--three semester hours:

CRIJ 3310: Ethical Issues in Criminal Justice

- 2. Administration of Justice--three semester hours from:
  - CRIJ 3311: Admin. of Criminal Justice Agencies
  - CRIJ 3340: Victimology
  - CRIJ 4307: Juvenile Justice
  - CRIJ 4350: Comparative Criminal Justice
- 3. Criminology Theory--three semester hours from:
  - CRIJ 3320: Criminology
  - CRIJ 4340: Crimes of Violence
  - CRIJ 3350: Domestic Violence
- 4. Corrections--three semester hours from
  - CRIJ 4313: Corrections Theory and Practice
  - CRIJ 4314: Community-based Corrections
  - CRIJ 3322: Probation and Parole
- 5. Law Adjudication--six semester hours:
  - CRIJ 3326: Criminal Law
  - CRIJ 4341: Criminal Procedure
- 6. Law Enforcement--three semester hours CRIJ 4333: Community Policing
- 7. Research and Methods--three semester hours CRIJ 4322: Research Methods
- 8. Capstone Experience--three semester hours

CRIJ 4355: Senior Seminar in Criminal Justice

- D. 12 hrs. of electives in Criminal Justice (minimum of six hours must be upper division)
- E. A minor of 18 hours, chosen in consultation with the student's major advisor
- F. Electives

**Notes:** (1) No more than 21 lower-division hours in criminal justice, law enforcement, or police science may be applied toward baccalaureate degree requirements. (2) All courses cross-listed between criminal justice and any other discipline must be taken as criminal justice courses.

### Minor in Criminal Justice

Criminal justice may be chosen as a minor to satisfy bachelor degree requirements in other fields. This program consists of 18 semester hours in criminal justice including CRIJ 2300 and at least 15 upper division hours to include CRIJ 3320 and CRIJ 3326.

# Bachelor of Arts/ Science in Economics Requirements

Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade-point average of 2.0 in upper-division economics courses, including a 2.0 average in a minimum of 12 upper division hours of economics taken at this university. No grade below "C" in any economics course will be accepted for graduation.

#### C. Twelve hours of preparation comprised of:

- 1. MATH 1314 or MATH 1324 (may be part of Core Curriculum)
- 2. MATH 1342 and MATH 1325 (may be part of Core Curriculum)
- 3. COSC 1307 or 3309
- D. A minimum of 30 hours in economics, of which 24 must be upper division, as follows:
  - 1. ECON 2301 and 2302
  - 2. ECON 3314 and 3317
  - ECON 4320 (required of all majors and should be taken in senior year)
  - 4. Upper division economics chosen with advisor approval. (15 hours, of which 6 hours may include finance courses.)
  - Total

30 Sem. Credit Hrs.

- E. A minor of 18 hours chosen in consultation with the student's advisor
- F. FOR THE BACHELOR OF ARTS DEGREE: at least four semesters of a single foreign language or a satisfactory grade on a written examination approved by the Department of Social Sciences
- G. Electives

### Minor in Economics

A minor in economics is a valuable support field for many different majors. It has proven to be particularly helpful to students majoring in political science, history, sociology, journalism, law, and business administration. The economics minor requires 18 hours consisting of six hours of principles and 12 additional hours, 9 of which must be at the upper-level, chosen with approval of an economics advisor.

#### Bachelor of Arts/ Science in Sociology Requirements Total Semester Credit Hours=120

- A. University Core Curriculum (44 hrs.)
- B. A minimum grade point average of 2.0 in upper-division courses in sociology, including a 2.0 average in a minimum of 12 upper-division hours taken in the major at this university

C. A minimum of 36 semester hours of sociology, including:	
1. Required Core Courses18 hours	2
SOCI 1301: Intro. to Sociology	3
SOCI 3396: Social Research Methods or CRIJ 4322	3
SOCI 3370: Sociological Theory	3
SOCI 2326: Social Psychology	3
SOCI 3315: Social Stratification	3 3 3
SOCI 4397: Senior Research Seminar (required in last	3
semester)	
2. Sociology electives12 hours chosen in consultation with the	
student's major advisor; or 12 hours within one of the following	
concentrations	
a. Cultural Studies (3 hrs. from each group)	
ANTH 3330 or 4360	3
GEOG 1313, 3325, or 4310	3
	2
SOCI 3321 or 4311	3
SOCI 4307 or 4308	3
b. Social Services (all are required)	
SOCI 3320, 3345, 4321, 4330	12

3. Social Science electives--6 hrs. approved by advisor

#### Total

- D. A minor of at least 18 hours, chosen in consultation with the student's major advisor
- E. FOR THE BACHELOR OF ARTS DEGREE: In addition to the above, at least four semesters of a foreign language or a satisfactory grade on a written examination approved by the foreign language faculty.

36 Sem. Credit Hrs.

F. Electives

### Minor in Sociology

Sociology may be chosen as a minor to satisfy requirements for bachelors degree programs with majors in other fields. This program consists of 18 semester hours in sociology, 12 of which must be upper division, chosen in consultation with the major advisor.

### Minor in Anthropology

Anthropology is a broad discipline that studies human conditions across time and space. The minor can support a wide range of majors, including all social sciences, history, English, journalism as well as life sciences. The anthropology minor requires 18 hours of anthropology courses, 12 of which must be upper division. One upper division course can be substituted by ENGL 3376: Contrastive Linguistics or ENGL 4376: The Nature of Language.

### Minor in Geography

Geography is the study of the earth as the human home. Geography courses are designed for undergraduate students taking the minor to fulfill academic and career objectives. The minor will enable students to become familiar with the major concepts in geography as well as the people, places, and cultures as they are found in various regions of the world. Students will also learn about physical processes that frame the planet earth. Up to two courses in the sub-field Geographic Information Systems (GIS) may be included in the minor. This sub-field will equip students for a wide range of challenging professional careers in social science, urban land use planning as well as employment with city, state, and federal governments. The minor can support majors in social sciences, education, life sciences, journalism, history, and technology.

The minor in geography requires 18 hours of geography, 12 of which must be at the upper division.

## School of Performing Arts

#### Dr. Michael Thrasher, Director

The School of Performing Arts (SPA) is a community of recognized artists and professionals representing music. The SPA is committed to providing a high quality learning environment that develops in each student the knowledge, skills and professionalism to work as an artist. Arts students enjoy many opportunities to learn about teaching and performing within a dynamic and personal campus environment. The School sponsors numerous guest artists and travel/study opportunities.

### **Department of Music**

Through the Bachelor of Music degree, Bachelor of Arts degree and the Master of Arts degree in Interdisciplinary Studies, the Music Department offers challenging instruction and performance opportunities to prepare music majors for careers and/or advanced study in any of a number of music specializations. Students in other major fields may also pursue a minor in music. Music students have many opportunities to perform in the Braithwaite recital Hall and the Vaughn Auditorium. The Braithwaite Recital Hall is an impressive 166-seat hall which features oak paneling throughout, a magnificent stage for solo, chamber, or student recitals, and a state-of-the-art digital recording studio. The Vaughn Auditorium is a magnificent 2000-seat hall with a Broadway-sized stage, full cast and solo dressing rooms, and full orchestra pit. The Music Department also features a computer/digital keyboard lab and excellent theory/aural skills rooms.

Specifically, the Music Department provides academic and performance training leading to:

- all-level teacher certification and careers in music education in both public and private elementary and secondary schools
- music careers in private studio teaching or church programs

 graduate study in music, in preparation for careers in music performance, composition, music theory or musicology

The Department serves students from within a broad liberal arts curriculum. In this role, it provides:

- a core of basic courses and musical experiences to meet University Core Curriculum requirements in music for the general university student population
- an awareness of the interrelationship between the arts and other academic disciplines
- opportunities for individuals to develop an articulate aesthetic sense and to become discerning consumers and patrons of the arts
- performance experiences for musicians of various skill levels, through ensembles open to membership without audition and ensembles designed to meet the needs of pre-professional musicians

The music faculty holds a strong belief in the value of music and the fine arts as essential components of the human spirit, necessary to a wellrounded, fulfilling existence, and in the academic worth of music as a discipline of study. Music Program faculty work to infuse these beliefs into both classroom teaching and performance instruction.

### Lower Division and Transfer Student Requirements

Incoming freshman music majors should be aware that, unlike certain disciplines, specialized music study begins in the first year. These courses are taken concurrently with the freshman and sophomore general education core courses.

In addition to meeting all general requirements for admission to the University, all incoming students intending to major in music must perform an entrance audition in their principal performing medium before a faculty committee, or submit a portfolio of compositions, as appropriate. Transfer students must also supply a complete list of repertoire previously studied. Unless approved for upper division instruction through audition, transfer students will enroll in lower division applied music. Audition dates must be arranged through the Music Department.

To ensure appropriate course placement, theory and keyboard assessments will be administered to all incoming music majors, whether freshmen or transfer students. Contact the music office for administration dates. Transfer students must complete the lower division Field of Study requirements in music with grades of "C" or better.

The music curriculum is designed to ensure reasonable scope and competence in all graduates. Any music degree is demanding in both academic studies and performance. Most students, especially those seeking teacher certification, will need to complete some of the coursework in summers or plan to allow five years to complete the program. Careful consultation with a faculty advisor is required throughout the program to ensure timely progress toward the degree.

#### **Music Program Policies**

Space limitations prevent the inclusion of all Music Department policies and requirements in this catalog. Additional policies and requirements are published in the Music Department Student Handbook, available at www.uttyler.edu/music, and in print form in the Music Department office.

# Bachelor of Music (B.M.) Requirements: Composition Emphasis

#### Total Semester Credit Hours = 121

- A. University Core Curriculum --44 hours
- B. Musical Performance -- 29 hours
  - 1. Applied Study in voice or instrument (MUAP)--12 hrs. (8 lower-division and 4 upper-division)
  - 2. Applied study in composition (MUAP)--12 hours upper-division
  - 3. Ensembles (MUEN)--4 hours lower-division
  - 4. Senior Recital--MUAP 4100
- C. Supporting Courses in Music--45 hours (or including MUSI 2308, which is applied toward core curriculum requirements.)

1. Lower-Division Courses (20 hrs.)

14140 1111		
MUAP 1111	Harmony and Keyboard I	
MUAP 1112	Harmony and Keyboard II	
MUAP 2111	Harmony and Keyboard III	
MUAP 2112	Harmony and Keyboard IV	
MUSI 1000	Recitals, Concerts and Productions	
	(6 registrations)	
MUSI 1116	Aural Skills I	
MUSI 1117	Aural Skills II	
MUSI 1311	Music Theory I	
MUSI 1312	Music Theory II	
MUSI 2116	Aural Skills III	
MUSI 2117	Aural Skills IV	
MUSI 2308*	Music Literature	
MUSI 2311	Music Theory III	
MUSI 2312	Music Theory IV	
2. Upper-Division Courses (25 hrs.)		
MUSI 3214	Adv. Conducting and Score	
	Reading	
MUSI 3228**	Instrumental Seminar	
or		
MUSI 3229**	Vocal Seminar	
MUSI 3311	Conducting	
MUSI 3319	Music History I	
MUSI 3320	Music History II	
MUSI 4342	Form and Analysis	
MUSI 4345	Arranging for Ensembles	

D. Music Electives (upper-division) -- 3 hrs

MUSI 3318

MUSI 4340

\*\*Instrumental students should take Vocal Seminar; vocal students should take Instrumental Seminar

# Bachelor of Music (B.M.) Requirements: Instrumental Performance Emphasis

Musics of the World

Counterpoint

Total Semester Credit Hours = 122

- A. University Core Curriculum --44 hours
- B. Musical Performance, technique and pedagogy --32 hours
  - 1. Applied study in primary instrument (MUAP)--16 hrs. (8 lowerdivision, 8 upper-division)

2. Major Ensembles (MUEN)--8 hrs. (4 lower-division, 4 upperdivision)

- 3. Minor Ensembles (MUEN)--4 hrs. (lower-division)
- 4. Junior Recital--MUAP 3000
- 5. Senior Recital--MUAP 4100
- 6. MUSI 3330--Topics in Pedagogy and Literature
- C. Supporting Courses in Music--35 hours (not including MUSI 2308, which is applied toward core curriculum requirements).

1. Lower-Division Cou	rses (20 hrs.)
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MUAP 1111 MUAP 1112 MUAP 2111	Harmony and Keyboard I Harmony and Keyboard II Harmony and Keyboard III
MUAP 2112	Harmony and Keyboard IV
MUSI 1000	Recitals, Concerts and Productions (6 registrations) Aural Skills I
MUSI 1116	
MUSI 1117	Aural Skills II
MUSI 1311	Music Theory I
MUSI 1312 MUSI 2116	Music Theory II Aural Skills III

	MUSI 2117	Aural Skills IV		
	MUSI 2308*	Music Literature		
	MUSI 2311	Music Theory III		
	MUSI 2312	Music Theory IV		
2. Upper-Division Courses (12 hrs.)				
	MUSI 3311	Conducting		
	MUSI 3319	Music History I		
	MUSI 3320	Music History II		
	MUSI 4342	Form and Analysis		
	MUSI 4345	Arranging for Choral and Instrumental Ensembles		
	M + EL /	1		

#### D. Music Electives (upper-division)-11 hrs.

#### Bachelor of Music (B.M.) Requirements: Instrumental Music Education Emphasis Total Semester Credit Hours = 123

- A. University Core Curriculum --44 hours
- B. Musical Performance --21 hours
  1. Applied study in primary instrument (MUAP)--14 hrs. (8 lower-division, 6 upper-division)
  - 2. Major Ensembles (MUEN)--7 hrs. (4 lower-division, 3 upperdivision)
- 3. Recital--MUAP 3000
- C. Musicianship and Pedagogy--58 hours (not including MUSI 2308, which is applied toward core curriculum requirements)

which is applied toward core curriculum requiremen						
	1. Lower-Division	. ,				
	MUAP 1111	Harmony and Keyboard I				
	MUAP 1112	Harmony and Keyboard II				
	MUAP 2111	Harmony and Keyboard III				
	MUAP 2112	Harmony and Keyboard IV				
	MUSI 1000 (6	Recitals, Concerts and				
	registrations)	Productions (6 registrations)				
	MUSI 1116	Aural Skills I				
	MUSI 1117	Aural Skills II				
	MUSI 1311	Music Theory I				
	MUSI 1312	Music Theory II				
	MUSI 2116	Aural Skills III				
	MUSI 2117	Aural Skills IV				
	MUSI 2308*	Music Literature				
	MUSI 2311	Music Theory III				
	MUSI 2312	Music Theory IV				
	2. Upper-Division	Courses (38 hrs.)				
	MUSI 3214	Advanced Conducting and Score				
		Reading				
	MUSI 3220	Woodwind Methods				
	MUSI 3221	Brass Methods				
	MUSI 3222	Percussion Methods				
	MUSI 3223	String Methods				
	MUSI 3229	Vocal Seminar for Instrumental				
		Majors				
	MUSI 3240	Marching Band Procedures				
	MUSI 3311	Conducting				
	MUSI 3319	Music History I				
	MUSI 3320	Music History II				
	MUSI 3325	Teaching Music in the Elementary School				
	MUSI 3327	Teaching Music in the Secondary				
	MUCL (22)	School Instrumental Methods and Band				
	MUSI 4326	Admin.				
	MUSI 4342	Form and Analysis				
	MUSI 4345	Arranging for Choral and Instrum.				
		Ensembles				

#### Bachelor of Music (B.M.) Requirements: Piano Performance Emphasis Total Semester Credit Hours = 120

- A. University Core Curriculum --44 hours
- B. Musical Performance --32 hours
  - 1. Applied study in piano (MUAP)--16 hrs. (8 lower-division, 8 upperdivision)
  - 2. Accompanying/Ensembles (MUEN/MUAP)--8 hrs. (4 lower-division, 4 upper-division)
  - 3. Applied study in secondary instrument (MUAP)--4 hrs. (lower-
  - division) 4. Junior Recital--MUAP 3000
  - Senior Recital--MUAP 4100
  - 6. MUSI 3335: Piano Pedagogy
- C. Supporting Courses in Music--45 hours (not including MUSI 2308, which is applied toward core curriculum requirements)
  - 1. Lower-Division Courses (20 hrs.)

1. Lower-Division Courses (20 ms.)						
MUAP 1111	Harmony and Keyboard I					
MUAP 1112	Harmony and Keyboard II					
MUAP 2111	Harmony and Keyboard III					
MUAP 2112	Harmony and Keyboard IV					
MUSI 1000	Recitals, Concerts and					
	Productions (6 registrations)					
MUSI 1116	Aural Skills I					
MUSI 1117	Aural Skills II					
MUSI 1311	Music Theory I					
MUSI 1312	Music Theory II					
MUSI 2116	Aural Skills III					
MUSI 2117	Aural Skills IV					
MUSI 2308*	Music Literature					
MUSI 2311	Music Theory III					
MUSI 2312	Music Theory IV					
2. Upper-Division	Courses (18 hrs.)					
MUSI 3311	Conducting					
MUSI 3319	Music History I					
MUSI 3320	Music History II					
MUSI 4340	Counterpoint					
MUSI 4320	Piano Literature					
MUSI 4342	Form and Analysis					
Music Electives (upper-division)-6 hrs						

D. Music Electives (upper-division)-6 hrs.

# Bachelor of Music (B.M.) Requirements: Piano Pedagogy Emphasis

Total Semester Credit Hours = 120

- A. University Core Curriculum --44 hours
- B. Musical Performance --26 hrs.
  - 1. Applied study in piano(MUAP)--16 hrs. (8 lower-division, 8 upperdivision)
  - 2. Accompanying/Ensembles (MUEN/MUAP)--8 hrs. (4 lower-division, 4 upper-division)
  - 3. Applied study in secondary instrument (MUAP)--2 hrs. (lower-division)
  - 4. Recital--MUAP 3000
- C. Supporting Courses in Music--47 hours (not including MUSI 2308, which is applied toward core curriculum requirements)

1. Lower-Division Courses (20 hrs.)					
MUAP 1111	Harmony and Keyboard I				
MUAP 1112	Harmony and Keyboard II				
MUAP 2111	Harmony and Keyboard III				

MUAP 2112	Harmony and Keyboard IV					
MUSI 1000	Recitals, Concerts and Productions (6 registrations)					
MUSI 1116	Aural Skills I					
MUSI 1117	Aural Skills II					
MUSI 1311	Music Theory I					
MUSI 1312	Music Theory II					
MUSI 2116	Aural Skills III					
MUSI 2117	Aural Skills IV					
MUSI 2308*	Music Literature					
MUSI 2311	Music Theory III					
MUSI 2312	Music Theory IV					
2. Upper-Division						
MUSI 3311	Conducting					
MUSI 3319	Music History I					
MUSI 3320	Music History II					
MUSI 3325	Teaching Music in the Elementary School					
MUSI 3330 (6	Topics in Pedagogy and Literature					
credits required)						
MUSI 3335	Piano Pedagogy					
MUSI 4320	Piano Literature					
MUSI 4342	Form and Analysis					
D. Music Electives (upper-division)3 hrs.						

### Bachelor of Music (B.M.) Requirements: Vocal Performance Emphasis

Total Semester Credit Hours = 120

- A. University Core Curriculum --44 hours
- B. Musical Performance, Techniques and Pedagogy --38 hours 1. Applied study in voice (MUAP)--16 hrs. (8 lower-division, 8 upperdivision) 2. Major Ensembles (MUEN) -- 8 hrs. (4 lower-division, 4 upperdivision) 3. MUEN 3145: Opera/Musical Theatre (taken twice--2 hrs.) 4. Junior Recital--MUAP 3000 5. Senior Recital--MUAP 4100 6. Pedagogy and Literature MUSI 3330 Topics in Pedagogy Song Literature MUSI 3230 Vocal Pedagogy MUSI 3231 MUSI 3224 Diction I Diction II MUSI 3225 C. Supporting Courses in Music--38 hours (not including MUSIC 2308, which is applied toward core curriculum requirements) 1. Lower-Division Courses (20 hrs.) MUAP 1111 Harmony and Keyboard I Harmony and Keyboard II MUAP 1112 Harmony and Keyboard III MUAP 2111 Harmony and Keyboard IV MUAP 2112 d

MUSI 1000 (6	Recitals, Concerts and
registrations)	Productions
MUSI 1116	Aural Skills I
MUSI 1117	Aural Skills II
MUSI 1311	Music Theory I
MUSI 1312	Music Theory II
MUSI 2116	Aural Skills III
MUSI 2117	Aural Skills IV
MUSI 2308*	Music Literature
MUSI 2311	Music Theory III
MUSI 2312	Music Theory IV

#### 2. Upper-Division Courses (18 hrs.)

	• •
MUSI 3311	Conducting
MUSI 3319	Music History I
MUSI 3320	Music History II
MUSI 3313	Musical Theatre
MUSI 4342	Form and Analysis
MUSI 4345	Arranging for Ensembles

### Bachelor of Music (B.M.) Requirements: Vocal Music **Education Emphasis**

Total Semester Credit Hours = 122

- A. University Core Curriculum --44 hours
- B. Musical Performance -- 21 hours

1. Applied study in voice (MUAP)--14 hrs. (8 lower-division, 6 upperdivision)

2. Major Ensembles (MUEN) -- 7 hrs. (4 lower-division, 3 upperdivision)

3. Recital- MUAP 3000

C. Musicianship and Pedagogy--57 hours (not including MUSI 2308, which is applied toward core curriculum requirements)

#### 1. Lower-Division Courses (20 hrs.)

MUAP 1111 MUAP 1112 MUAP 2111 MUAP 2112	Harmony and Keyboard I Harmony and Keyboard II Harmony and Keyboard III Harmony and Keyboard IV					
MUSI 1000	Recitals, Concerts and Productions (6 registrations) Aural Skills I					
MUSI 1116	Aural Skills II					
MUSI 1117						
MUSI 1311	Music Theory I					
MUSI 1312	Music Theory II					
MUSI 2116	Aural Skills III					
MUSI 2117	Aural Skills IV					
MUSI 2308*	Music Literature					
MUSI 2311	Music Theory III					
MUSI 2312	Music Theory IV					
2. Upper-Division Courses (37 hrs.)						
MUSI 3326	Choral Conducting and Score					
	Reading					
MUSI 3224	Diction I					
MUSI 3225	Diction II					
MUSI 3228	Instrumental Seminar for Vocal Majors					
MUSI 3230	Song Literature					
MUSI 3231	Vocal Pedagogy					
MUSI 3311	Conducting					
MUSI 3319	Music History I					
MUSI 3320	Music History II					
MUSI 3325	Teaching Music in Elementary					
	Schools					
MUSI 3327	Teaching Music in Secondary					
1 41 101 /005	Schools					
MUSI 4225	Choral Literature and Techniques I					
MUSI 4226	Choral Literature and Techniques II					
MUSI 4342	Form and Analysis					
MUSI 4345	Arranging for Choral and Instrumental Ensembles					

### Bachelor of Arts in Music Requirements

Total Semester Credit Hours=129

A. University Core Curriculum (44 hrs., MUSI 2308 may be applied to core curriculum requirements)

- B. Foreign Language--14 hours (four semesters)
- C. Musical Performance --14 hours

  Applied Study in voice or instrument (MUAP)--7 hours (4 lower-division and 3-upper-division)
  Major Ensembles (MUEN)--7 hours (4 lower-division; 3 upper-division)
- D. Musicianship--42 hours (not including MUSI 2308 , which is applied toward core curriculum requirements)

1. Lower-Division Course (20 hrs.)

1. Lower Division	
MUAP 1111	Harmony and Keyboard I
MUAP 1112	Harmony and Keyboard II
MUAP 2111	Harmony and Keyboard III
MUAP 2112	Harmony and Keyboard IV
MUSI 1000	Recitals, Concerts and Productions (6 registrations)
MUSI 1116	Aural Skills I
MUSI 1117	Aural Skills II
MUSI 1311	Music Theory I
MUSI 1312	Music Theory II
MUSI 2116	Aural Skills III
MUSI 2117	Aural Skills IV
MUSI 2308*	Music Literature
MUSI 2311	Music Theory III
MUSI 2312	Music Theory IV
2. Upper-Divisio	n courses (22 hrs.)
MUSI 3311	Conducting
MUSI 3318	Musics of the World
MUSI 3319	Music History I
MUSI 3320	Music History II
MUSI 4101	Analytical/Research Project
MUSI 4340	Counterpoint
MUSI 4342	Form and Analysis
MUSI 4345	Arranging for Choral and Instrumental Ensembles

E. Electives --15 hours

1. Music (Upper-division)--6 hrs

2. Non-Music (Upper-division)--9 hrs.

There is no recital requirement for this degree. A substantial formal paper prepared in MUSI 4101: Analytical/Research Project shall be presented with the approval of the major advisor and submitted as evidence of competence in the major field. The project may be an outgrowth of a music theory, history, topics course, or independent study project, as appropriate to the student's interest.

#### Minor in Music

Music may be chosen as a minor to satisfy bachelor's degree program requirements with majors in other fields. Students must audition in an applied area for acceptance in the program. A minimum of 19 hours is required, 6 of which must be upper-division. Students should consult with a music advisor *prior* to the first semester enrolled to discuss the availability of classes.

MUSI 1000: Recitals, Concerts, Productions (minimum 4 semesters with grade of CR)

MUSI 1311 and 1312: Music Theory

MUSI 1116 and 1117: Aural Skills

MUSI 1111 and 1112: Harmony & Keyboard

MUSI 2308: Music Literature

Guided Electives (6 hours from lower-division MUAP and/or upperdivision MUSI, MUAP or MUEN courses with advisor approval)

#### **Teacher Certification in Music**

All students wishing to be certified to teach music (EC-12) in Texas public schools must complete the Academic Foundations, Professional Development, the Bachelor of Music (B.M.), and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction.

#### **Applied Music Courses**

Applied Music courses are available from beginning to advanced levels of study for one, two or three credit hours. Students are required to furnish their own instrument and music materials. All lessons will be taught in the instructor's university's studio. Permission to enroll and appropriate computer call number may be obtained by contacting the music office. A fee of \$50 will be charged for each one credit hour course, a fee of \$100 will be charged for each three credit hour course, and a fee of \$125 will be charged for each three credit hour course. (fees are subject to change) Undergraduate and graduate level courses may be repeated twice for credit.

Course	Freshmar		Sophomore		Junior	Senior		Graduate		
Accompanying	1171	1271	2171	2271	3271	3371	4271	4371	5271	5371
Euphonium	1150	1250	2150	2250	3250	3350	4250	4350	5250	5350
Baritone Horn		1250			3250				5250	
Bassoon	1126	1226	2126	2226	3226	3326	4226	4326	5226	5326
Clarinet	1129	1229	2129	2229	3229	3329	4229	4329	5229	5329
Composition					3287	3387	4287	4387	5287	5387
Contrabass	1113	1213	2113	2213	3213	3313	4213	4313	5213	5313
Flute	1120	1220	2120	2220	3220	3320	4220	4320	5220	5320
French Horn	1141	1241	2141	2241	3241	3341	4241	4341	5241	5341
Guitar	1161	1261	2161	2261	3261	3361	4261	4361	5261	5361
Harpsichord	1170	1270	2170	2171	3270	3370	4270	4370	5270	5370
Oboe	1121	1221	2121	2221	3221	3321	4221	4321	5221	5321
Organ	1166	1266	2166	2266	3266	3366	4266	4366	5266	5366
Percussion	1157	1257	2157	2257	3257	3357	4257	4357	5257	5357
Piano	1169	1269	2169	2269	3269	3369	4269	4369	5269	5369
Saxophone	1133	1233	2133	2233	3233	3333	4233	4333	5233	5333
Trombone	1146	1246	2146	2246	3246	3346	4246	4346	5246	5346
Trumpet	1137	1237	2137	2237	3237	3337	4237	4337	5237	5337
Tuba	1153	1253	2153	2253	3253	3353	4253	4353	5253	5353
Viola	1105	1205	2105	2205	3205	3305	4205	4305	5205	5305
Violin	1101	1201	2101	2201	3201	3301	4201	4301	5201	5301
Violoncello	1109	1209	2109	2209	3209	3309	4209	4309	5209	5309
Voice	1181	1281	2181	2281	3281	3381	4281	4381	5281	5381

# ARTS AND SCIENCES COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

# Anthropology (ANTH)

#### ANTH 2346: Introduction to Anthropology [TCCN: ANTH 2346]

Explores human diversity by offering a balanced introduction to the four academic subdisciplines of anthropology: physical, cultural, archaeological, and linguistic, as well as the subfield of applied anthropology. Human origins and current biological diversity, global changes in the way of life, the rise and fall of civilizations, dialects and languages in different social contexts, and contemporary applications and careers in anthropology are among the topics discussed.

#### ANTH 3330: Cultural Anthropology

Using both humanistic and scientific approaches, cultural anthropology offers a holistic, comparative perspective on human condition. The nature, principles and comparative topics of culture - such as subsistence, family, language, religion and art - will be studied. Visual examples will be drawn from many cultures, offering students an opportunity to appreciate both the complex cultural diversity and the common traits of the world. Applications of anthropological knowledge to contemporary problems will be discussed as well.

#### ANTH 3360: Archaeology

Examines the beginnings of human cultures and the methods used to reconstruct and interpret the prehistoric human past. Includes consideration of the ethics of archaeological research as well as the question of who should be the guardian of human remains. Considers contemporary applications of archaeology as well as its relation to other disciplines. Latter part of the course will focus on archaeology of North America and Texas.

#### ANTH 3380: Physical Anthropology

On the basis of fossil and other physical evidence, physical anthropology studies the origin of human species, the beginnings of culture, the role of heredity and environment in the development of humans, and current physical variation among human populations of the globe. In this course we will also discuss issues like our biological and ethical relations to other primates, the Neanderthal controversy, and the concept of "race."

#### ANTH 4360: Topics In Anthropology

Selected topics in an identified area of anthropology or study of a specific cultural group. May be repeated once for credit when topic varies.

#### ANTH 4361: Field Methods in Archaeology

Students will participate in a field project and will learn survey and excavation methods and techniques. No more than 6 hours of field methods will apply to Anthropology minor programs.

#### ANTH 4199-4699: Independent Study

Independent study in specific areas of Anthropology not covered by organized undergraduate courses. Guided readings and a research paper on an approved topic. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair required.

# Art (ART)

#### ART 1301: Introduction to Art [TCCN: ARTS 1301]

This course provides the student with an understanding and appreciation of the theories, history, and practices of art.

#### ART 3310: Teaching Arts in the Public Schools

Teaching methods and processes used in the instruction of art in the public schools. Course emphasizes classroom management, planning of art projects, visual vocabulary and art historical concepts. Course may not be applied to BFA without teaching certification option.

#### ART 1311: Design I [TCCN: ARTS 1311]

A study of the visual structure and organization of two-dimensional space using a variety of media. Emphasis on the elements of line, shape, texture, color, value, space.

#### ART 1312: Design II [TCCN: ARTS 1312

A study of the visual structure and organization of three-dimensional forms using a variety of materials. Emphasis on shape, texture, space, form, scale.

#### ART 1316: Drawing I [TCCN: ARTS 1316]

An introductory studio course focusing on basic drawing principles, strategies, motivations, and techniques.

#### ART 1399: Directed Studies: Drawing

An introductory studio course focusing individualized instruction on basic drawing principles of studio art. May be repeated for credit when content varies with consent of advisor.

#### ART 2303: Art History Survey I [TCCN: ARTS 1302]

A study of the major developments in art from Prehistory to the Medieval period.

#### ART 2304: Art History Survey II [TCCN: ARTS 1304]

A study of the major developments in art from the Renaissance to the late Twentieth Century.

#### ART 2316: Beginning Painting [TCCN: ARTS 2316]

An introduction to painting in various media, content and form. **Prerequisites:** ART 1311, ART 1316 OR CI.

#### ART 2326: Beginning Sculpture [TCCN: ARTS 2326]

An introduction to various materials, tools, and approaches used in making sculpture.

#### ART 2333: Beginning Printmaking [TCCN: ARTS 2333]

An introduction to various forms of printmaking. Prerequisites: ART 1311, ART 1316 or CI.

# ART 2341: Beginning Jewelry and Metalsmithing [TCCN: ARTS 2341]

An introduction to materials and techniques used in the creation of jewelry and small sculpture.

#### ART 2356: Beginning Digital Photography [TCCN: ARTS 2356]

An introduction to digital photographic processes used in the creation of art works. Course includes use of camera, software and computer enhancement. In addition to technical considerations course also covers aesthetic aspects of digital imaging in the creation of works of art.

#### ART 2379: Beginning Ceramics [TCCN: ARTS 2346]

An introduction to various materials, tools, and approaches used in ceramics.

#### ART 2380: Beginning Ceramic Sculpture

Beginning methods and practices used in contemporary ceramic sculpture. Special emphasis on clay additive, subtractive and carving methods. **Prerequisites:** Art 1312.

#### ART 3300: Composition and Design

Analysis and synthesis of art forms. Experimental problems in form, space and color. May be repeated once for credit.

#### ART 3310: Teaching Art in Public Schools

Teaching methods and processes used in the instruction of art in the public schools. Course emphasizes classroom management, planning of art projects, visual vocabulary and art historical concepts. Course may not be applied to BFA without teaching certification option.

#### ART 3315: Essential Elements of Art

A course emphasizing art activities and skills of children from the scribbling through the preadolescent stages of development. ART 3115 may count only towards the teacher certification option.

#### ART 3320: Intermediate Life Drawing I

An advanced course in drawing with emphasis on figure representation for students working toward maturity and individuality in graphic expression. May be repeated once for credit. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 3321: Intermediate Life Drawing II

A continuation of ART 3320 with attention given to various mixed media. May be repeated once for credit. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 3340: Aesthetics in Visual Learning

Stresses necessary skills in assessing the visual arts including a knowledge of the elements and processes of art, the ability to analyze a work of art, and an exposure to critical thinking about the nature of art. **Prerequisite:** ART 1301 CI.

#### ART 3341: Art and Society: Ancient to Medieval

A study of painting, sculpture and architecture from antiquity through the medieval era with particular emphasis on societal circumstances which helped to form artistic evolution. **Prerequisite:** ART 1301 CI.

#### ART 3342: Art and Society: Renaissance to Modern

A study of painting, sculpture and architecture from the Renaissance to the 20th century with particular emphasis on societal circumstances which helped to form artistic evolution. **Prerequisite:** ART 1301 CI.

#### ART 3343: Jewelry and Metalsmithing

The study of various materials, tools and approaches used in the creation of jewelry and small metal sculpture.

#### ART 3356: Three Dimensional Design

An advanced design course offering expanded sculptural design experience. Experimental problems include exploration form, volume, space and time.

#### ART 3359: Intermediate Digital Photography

Intermediate studies in digital photographic processes used in the creation of art works. Course includes use of camera, software and computer enhancement. In addition to technical considerations course also covers aesthetic aspects of digital imaging in the creation of works of art. **Prerequisite:** CI,

#### ART 3366: Intermediate Painting

A study of various painting materials, mediums, applications, scales, and presentation. May be repeated once for credit. **Prerequisite:** ART 2316 or CI.

#### ART 3369: Collage Theory and Practice

Study in collage theory and practice through the use of mixed media. An investigation of various supports, adhesives, and presentation methods used in Collage. Discovery through created, found, and simulated materials. May be repeated with permission of instructor.

Prerequisite: ART 1311, ART 1316 or CI.

#### ART 3376: Intaglio/Relief

Studio practice in methods of intaglio, relief, collographic printmaking. Technical development will be emphasized. May be repeated once for credit. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 3377: Lithography

Studio practice of lithographic printmaking methods. Technical development will be emphasized. May be repeated once for credit. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 3379: Ceramics

A survey of issues and concepts in contemporary ceramic art. Introduction to techniques of throwing, hand building, and extruding of clay shapes used by contemporary ceramicists. May be repeated once for credit. **Prerequisites:** ART 1312, ART 2379 or CI.

#### ART 3380: Intermediate Ceramic Sculpture

Intermediate methods and practices used in contemporary ceramic sculpture. Special emphasis on clay additive, subtractive and carving methods. May be repeated once for credit. **Prerequisites:** ART 1312 and ART 2379 or ART 2380.

#### ART 3384: Intermediate Sculpture

A studio study in the techniques of sculpture emphasizing the use of the various tools available to the sculptor. Modeling, welding, casting, and fabrication techniques. May be repeated once for credit. **Prerequisites:** ART 1312, ART 2326 or CI.

#### **ART 3392: Professional Art Practices**

A course in theoretical and practical applications used by the professional artist. Portfolio presentation, writing skills, exhibitions as well as methodology used in connecting content, technique and formal issues of art. Course should be taken during junior year.

#### ART 4192: Senior Exhibition

A pre-professional development course designed for the graduating art major. Emphasizes career preparation and strategies for the professional artist, practice and procedures in organizing exhibitions, and writing skills. Students are required to present an exhibition of their work.

#### ART 4311: Advanced Painting

Advanced work in permanent media using various styles and techniques of artistic expression. **Prerequisite**: ART 2316 or CI. May be repeated once for credit.

#### ART 4320: Advanced Drawing

Advanced work in representation through drawings using a variety of styles and techniques as well as subjects. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 4331: Aquamedia

Emphasis is placed on landscape and imaginative painting which experiments in the opaque and transparent techniques of watercolor and acrylics. The development of an individual style for the artist through creative thinking is encouraged. May be repeated once for credit. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 4333: Landscape Painting

An advanced genre-based painting course on the objective study of the landscape. Each class period will meet onsite at locations around the East Texas area. Students should be knowledgeable of painting techniques, color mixing, and canvas preparation prior to taking this course. **Prerequisites:** ART 1311, ART 1316, ART 2316.

#### ART 4337: Advanced Painting Techniques

Advanced study in various painting media and modes of expression with emphasis upon artistic individuality. May be repeated once for credit. **Prerequisites:** ART 2316 or CI.

#### ART 4341: Advanced Jewelry and Metalsmithing

Advanced studies in materials and techniques used in the creation of jewelry and small sculpture.

#### ART 4342: Non-Western Art

A study of arts and crafts outside the Western tradition including Oriental, African, Native American and/or Oceanic cultures. May be repeated once for credit with consent of chair when content changes.

#### ART 4343: Greek and Roman Art

A study of architecture, sculpture, and painting from Aegean art to the fall of the Roman Empire.

#### ART 4344: Medieval Art

A study of architecture, sculpture, and painting in Europe from the reign of Charlemagne to the Romanesque and Gothic periods.

#### ART 4345: Renaissance Art

The art of Renaissance Europe: architecture, painting, and sculpture in Northern and Southern Europe from 1300 to 1600.

#### ART 4346: Baroque and Rococo Art

Art in Europe from 1600 to 1790: painting, sculpture and architecture with attention given to the effects of the Counter-Reformation, the rise of divine right, and the circumstances leading to the French Revolution.

#### ART 4347: Nineteenth-Century Art

A study of painting, sculpture and architecture in Europe from 1790 to 1890. The course will consider movements in the visual arts from Neo-Classicism to Post-Impressionism.

#### ART 4348: Art in America

A survey of American art: architecture, sculpture, painting, and the minor arts within the continental United States from prehistoric times to the present. May be repeated once for credit with consent of chair when content changes.

#### ART 4349: Twentieth-Century Art

Painting, sculpture and architecture in the twentieth century with special attention given to avant-garde movements such as Cubism, Dada, Surrealism, Abstract Expressionism, Pop and Op.

#### ART 4350: Early Christian and Byzantine Art

A study of Early Christian and Byzantine art from the 4th to the 12th centuries.

#### ART 4352: Women in Art

This course will give students a general knowledge of women artists as well as acquaint them with key concepts and critical theories in feminist art history through reading assignments, class discussion, and a writing project.

#### ART 4356: Advanced Digital Photography

Advanced studies in digital photographic processes used in the creation of art works. Course includes use of camera, software and computer enhancement. In addition to technical considerations course also covers aesthetic aspects of digital imaging in the creation of works of art. CI.

#### ART 4368-4668: Field Study

On-site examination of art and architecture, field investigation, archival research or study practice involving travel away from campus. Classroom lectures, seminars or faculty supervision will complement the travel and field experiences. No more than six semester hours of travel study courses may be applied to the major.

#### ART 4369: Advanced Collage Theory and Practice

Advanced study in collage theory and practice through the use of mixed media. An investigation of various supports, adhesives, and presentation methods used in Collage. Discovery through created, found, and simulated materials. May be repeated with permission of chair.

Prerequisite: ART 1311, ART 1316 or CI.

#### ART 4370 & 4371: Undergraduate Internship Program

An 8 to 16 week program providing for a learning experience in an off-campus environment. **Prerequisite:** Consent of chair.

#### ART 4373: Advanced Drawing Problems

A studio course that emphasizes the experimental use of media, the development of concepts, and an individual approach to imagery, form and expression. **Prerequisites:** ART 1311, ART 1316 or CI.

#### ART 4376: Advanced Intaglio/Relief

Advanced study of intaglio, relief, and collographic printmaking. Artistic development will be emphasized. May be repeated once for credit. **Prerequisite:** ART 2333 or CI.

#### ART 4377: Advanced Lithography

Advanced study of lithographic printmaking methods. Artistic development will be emphasized. May be repeated once for credit. **Prerequisite:** ART 2333 or CI.

#### ART 4379: Advanced Sculpture

Advanced studies in various media of sculpture with emphasis upon artistic individuality. May be repeated twice for credit. **Prerequisite:** ART 2326 or CI.

#### ART 4380: Advanced Ceramics

Advanced studies in ceramic art with emphasis on kiln firing, throwing, clay and glaze formulation. Development and refinement of design with further examination of contemporary ceramic art issues. **Prerequisite:** ART 2379 or CI. May be repeated once for credit.

#### ART 4381: Advanced Ceramic Sculpture

Kiln firing, clay and glaze formulation for sculpture applications. Development of design, spatial relationship, form and content are encouraged. **Prerequisite:** ART 2379 or CI. May be repeated once for credit.

#### ART 4390: Topics in Studio Art

Advanced studies in studio art to include topics in all art media. May be repeated for credit.

#### ART 4391: Topics in Art History

Advanced studies in art history to include topics from ancient to contemporary art. May be repeated for credit.

#### ART 4199-4699: Independent Study

Independent study in specific areas of art not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of chair.

## **Biology (BIOL)**

#### BIOL 1306: General Biology I [TCCN: BIOL 1306]

The scientific study of life at the molecular and cellular levels including mechanisms of inheritance, development and evolution. **Co-requisite**: BIOL 1106.

#### BIOL 1106: General Biology I Laboratory [TCCN: BIOL 1106]

Experimental and observational techniques used to study life at the molecular and cellular levels including techniques in the study of inheritance and development. **Co-requisite:** BIOL 1306.

#### BIOL 1307: General Biology II [TCCN: BIOL 1307]

The scientific study of life at the organismal, population, and community levels including form, function, reproduction, taxonomy, systematics, ecology and evolutionary history of biodiversity. **Co-requisite:** BIOL 1107.

#### BIOL 1107: General Biology II Laboratory [TCCN: BIOL 1107]

Experimental and observational techniques used to study life at the organismal, population, and community levels including morphology, physiology, reproduction, and ecology. **Co-requisite:** BIOL 1307.

#### BIOL 2301: Anatomy and Physiology I [TCCN: BIOL 2301]

An introductory course examining the organization of the human body and mechanisms of homeostasis. Topics include cellular mechanisms and nervous, skeletal, muscular and endocrine systems. Designed for nursing students and related health areas. May not be used for major in biology. **Co-requisite:** BIOL 2101. Students who enroll in this course are expected to have a recent and strong background equivalent to current Texas high school science and mathematics standards.

# BIOL 2101: Anatomy and Physiology I Laboratory [TCCN: BIOL 2101]

The study of the anatomy and physiology of the nervous, skeletal, muscular and endocrine systems at the cellular, organ and system level. **Co-requisite:** BIOL 2301. Students who enroll in this course are expected to have a recent and strong background equivalent to current Texas high school science and mathematics standards.

#### BIOL 2302: Anatomy and Physiology II [TCCN: BIOL 2302]

Continuation of BIOL 2301 Topics include cardiovascular, immune, respiratory, digestive, urinary and reproductive systems. May not be used for major in biology. **Co-requisite:** BIOL 2102. **Prerequisite** BIOL 2301/2101.

# BIOL 2102: Anatomy and Physiology II Laboratory [TCCN: BIOL 2102]

The study of the anatomy and physiology of the cardiovascular, immune, respiratory, digestive, urinary and reproductive systems at the cellular, organ, and system level. **Co-requisite:** BIOL 2302.

#### BIOL 2320: Introduction to Microbiology [TCCN: BIOL 2320]

Microbial structure, metabolism, and genetics. Microorganisms of medical importance are stressed. **Co-requisite:** BIOL 2120. **Prerequisites:** CHEM 1311/1111 or CHEM 1307/1107; and BIOL 2302/2102. May not be used for major in biology.

# BIOL 2120: Introduction to Microbiology Laboratory [TCCN: BIOL 2120]

Laboratory techniques for microbiology. Methods for handling and identifying microbes will be stressed. **Co-requisite:** BIOL 2320. **Prerequisite:** CHEM 1311/1111 or CHEM 1307/1107; and BIOL 2302/2102.

#### BIOL 3328: Pathophysiology

The etiology of human diseases at the cellular and humoral levels. **Prerequisite**: BIOL 2301/2101; 2302/2102; 2320/2120; and CHEM 1311/1111 or CHEM 1307/1107.

#### **BIOL 3332: Genetics**

Principles and concepts of inheritance. **Co-requisite:** BIOL 3133. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107, CHEM 1311/1111, CHEM 1312/1112.

#### **BIOL 3133: Genetics Laboratory**

An introduction to experimental and quantitative laboratory techniques fundamental to genetic analysis. **Co-requisite:** BIOL 3332. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107, CHEM 1311/1111, CHEM 1312/1112. Laboratory fee \$5.

#### BIOL 3334: Cell Biology

Essential processes of cells. Emphasis on cell structure, metabolism, components of membranes and organelles, and intracellular trafficking. **Corequisite:** BIOL 3134. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107, CHEM 1311/1111, and CHEM 1312/1112

#### BIOL 3134: Cell Biology Laboratory

Modern principles of study of cell structure, components of membranes and membrane-bound organelles, with emphasis on metabolism. **Co-requisite:** BIOL 3334. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107, CHEM 1311/1111, and CHEM 1312/1112.

#### BIOL 3335: Comparative Vertebrate Biology

Exploration of vertebrate morphology and development with the goals of understanding major evolutionary events and appreciating the integration of morphology with ecology, behavior, embryology, and histology. **Co-requisite:** BIOL 3135. **Prerequisites:** CHEM 3342/3143; BIOL 1306/1106 and BIOL 1307/1107.

#### BIOL 3135: Comparative Vertebrate Biology Laboratory

Provides students an opportunity to study the anatomy, development, and histology of vertebrate's evolutionary relationship between structure and function. **Co-requisite:** BIOL 3335.

#### BIOL 3336: Ecology

Study of the interrelationships of plants and animals with the environment. **Co-requisite:** BIOL 3137. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 3137: Ecology Laboratory

Application of ecological theory with emphasis on field and experimental studies. **Co-requisite:** BIOL 3336. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### **BIOL 3338: Biological Evolution**

Mechanisms and processes of change at the population, organismal, cellular, and molecular levels. History of earth and its biota including geologic time, fossils, and man. **Prerequisite:** BIOL 3332.

#### BIOL 3343: Physiology

Principles of general physiology, with emphasis on cell metabolism, nervemuscle relations, endocrine, nervous, excretory, respiratory, circulatory, and digestive systems. **Co-requisite:** BIOL 3144. **Prerequisites:** CHEM 3342/3143, BIOL 1306/1107 and BIOL 1307/1107.

#### BIOL 3144: Physiology Laboratory

Investigations of chemical reactions of the body and factors influencing these reactions. **Co-requisite:** BIOL 3343. **Prerequisites**: CHEM 3342/3143, BIOL 1306/1106 and BIOL 1307/1107.

#### **BIOL 3345: Plant Morphology**

Form and reproduction of plants emphasizing algae, fungi, mosses, and ferns. **Co-requisite:** BIOL 3146. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 3146: Plant Morphology Laboratory

Observations of representative types of algae, fungi, mosses, and ferns. **Corequisite:** BIOL 3345. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 3147: Plant Taxonomy

Systematics and identification of flowering plants of East Texas. **Co-requisite:** BIOL 3348. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 3348: Plant Taxonomy Laboratory

Principles of classification and nomenclature and their application to flowering plants of East Texas. **Co-requisite:** BIOL 3147. **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### **BIOL 4300: Microbiology**

Introduction to procaryotes and selected protists with an emphasis on bacteriology. Bacterial classification, physiology, and genetics will be stressed. **Co-requisite:** BIOL 4101. **Prerequisite:** CHEM 3344/3145, BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 4101: Microbiology Laboratory

Principles of isolation and characterization of bacteria with emphasis on taxonomy; independent work will be stressed. **Co-requisite:** BIOL 4300. **Prerequisite:** CHEM 3344/3145, BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 4302: Cell and Molecular Biology

Regulatory processes of cellular activities. Emphasis on genetic regulation, membranes and transport, replication and cell cycle, and cell signaling. **Corequisite:** BIOL 4102. **Prerequisites:** BIOL 3332/3133 and BIOL 3334/3134.

#### BIOL 4102: Cell and Molecular Biology Laboratory

Advanced techniques for the study of the cellular and molecular basis of biology. Emphasis on genomic and proteomic analysis of cells. **Co-requisite:** BIOL 4302. **Prerequisites:** BIOL 3332/3133 and BIOL 3334/3134.

#### BIOL 4305: Aquatic Biology

Ecology and general biology of freshwater ecosystems. Emphasis on the interrelationships of biological, chemical, and physical factors. Prerequisites: BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4105: Aquatic Biology Lab

Diversity, ecology, and management of the major groups of freshwater organisms, with an emphasis on North American flora and fauna. Major focus on basic field techniques, experimental design, and identification of field-captured organisms. Prerequisites: BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

### BIOL 4304: Biogeography

Study of flora and fauna of the world and factors affecting their distribution. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4114: Seminar I

Current topics in biology. Reports on research published in professional journals. Oral presentation required. This course is primarily designed for students enrolled in seminar for the first time though students presenting their second seminar may enroll. May be repeated once for credit. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4115: Seminar II

Current topics in biology. Reports on research published in professional journals. Oral presentation required. This course is primarily designed for students enrolled in seminar for the second time though first time seminar presenters may enroll. May be repeated once for credit. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4330: Herpetology

The study of the diversity of amphibians and reptiles including their evolution and distributions. Also covered will be their physiology, ecology, and conservation. Field trips will be required. **Co-requisite:** BIOL 4131. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4131: Herpetology Laboratory

Laboratory examination of the diversity of amphibians and reptiles. Study of the anatomy and physiology of amphibians and reptiles and ecological and behavioral experiments. **Co-requisite:** BIOL 4330. **Prerequisites:** BIOL 1306/1106, 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4331: Entomology

Physiology, morphology, life history, and control of insects. **Co-requisite:** BIOL 4132. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4132: Entomology Laboratory

Systematics and taxonomy of insects and related forms with emphasis on collection and identification. **Co-requisite:** BIOL 4331. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4335: Vertebrate Natural History

Taxonomy, evolution, and natural history of the vertebrates of the world with emphasis on North American and East Texas species. **Co-requisite:** BIOL 4136. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134;

#### BIOL 4136: Vertebrate Natural History Laboratory

Field study, collection, and identification of vertebrates emphasizing techniques of modern museum work. **Co-requisite:** BIOL 4335. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134.

#### BIOL 4340: Ornithology

Course will cover diverse aspects of avian biology, including anatomy, physiology, evolution, classification, ecology, reproduction, and behavior. **Corequisite:** BIOL 4141. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134;

#### BIOL 4141: Ornithology Laboratory

Laboratory course will focus on identification (by sight and sound), taxonomy, natural history, and behavior of local species. **Co-requisite:** BIOL 4340. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; and 3334/3134;

#### BIOL 4350: Immunology

Study of the biology and chemistry of humoral and cell-mediated immunities. **Prerequisites**: CHEM 3344/3145 and BIOL 4300/4101.

#### BIOL 4661: Field Biology

A field course emphasizing the identification, ecology, life histories, and behavior of organisms under natural conditions (summers only). **Prerequisites:** BIOL 1306/1106, BIOL 1307/1107.

#### BIOL 4370: Internship in Biology

An 8- to16-week course offering learning experiences in an off-campus environment. A minimum of 150 clock hours of learning experiences in an approved internship activity is required for 3 hours of credit. Application for the internship is required. CR/NC only. **Prerequisites:** BIOL 1306/1106; 1307/1107; 3332/3133; 3336/3137; 3334/3134; and 4300/4101 and consent of department chair.

#### BIOL 4199 - 4399: Independent Study

Independent study in specific areas of biology not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# Chemistry (CHEM)

#### CHEM 1305: Introductory Chemistry I [TCCN: CHEM 1305]

A study of fundamentals and applications of chemistry for student who are not majoring in science or engineering. Students may not receive credit for both CHEM 1311 and CHEM 1305.

# CHEM 1105: Introductory Chemistry I Laboratory [TCCN: CHEM 1105]

A study of basic chemical laboratory methods designed for students who are not majoring in science or engineering. Students may not receive credit for both CHEM 1111 and CHEM 1105. **Co-requisite:** CHEM 1305.

#### CHEM 1307: Introductory Chemistry II [TCCN: CHEM 1307]

A continued study of fundamentals and applications of chemistry including surveys of organic chemistry and biochemistry. Designed for students who are not majoring in science or engineering. Students may not receive credit for both CHEM 1312 and CHEM 1307. **Prerequisite:** CHEM 1305/1105.

# CHEM 1107: Introductory Chemistry II Laboratory [TCCN: CHEM 1107]

A continued study of basic chemical laboratory methods designed for students who are not majoring in science or engineering. Students may not receive credit for both CHEM 1112 and CHEM 1107. **Co-requisite:** CHEM 1307.

#### CHEM 1311: General Chemistry I [TCCN: CHEM 1311]

A general study of the fundamental principles of chemistry for majors in the sciences, health sciences, and engineering. Topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. **Co-requisite**: CHEM 1111 and MATH 1314. Chemistry in high school is strongly recommended.

# CHEM 1111: General Chemistry I Laboratory [TCCN: CHEM 1111]

Basic chemical laboratory techniques are introduced. **Co-requisite**: CHEM 1311.

#### CHEM 1312: General Chemistry II [TCCN: CHEM 1312]

Continuation of CHEM 1311. Topics include chemical equilibrium, acid-base concepts, thermodynamics, kinetics, electrochemistry, nuclear chemistry, and an introduction to organic chemistry and descriptive inorganic chemistry. **Corequisite:** CHEM 1112. **Prerequisite:** CHEM 1311/1111.

# CHEM 1112: General Chemistry II Laboratory [TCCN: CHEM 1112]

Continuation of CHEM 1111, including qualitative analysis; volumetric, gravimetric, and potentiometric analyses; and an introduction to chemical instrumentation. **Co-requisite:** CHEM 1312. **Prerequisites**: CHEM 1311/1111.

#### CHEM 3310: Analytical Chemistry

Chemical equilibrium, pH, and indicators; acid-base, oxidation-reduction, and complex-formation reactions; calculations of analytical chemistry; reliability of measurements; and gravimetric and volumetric analysis. **Prerequisites**: CHEM 1312/1112.

#### CHEM 3111: Analytical Chemistry Laboratory

General experiments in inorganic quantitative analysis. **Co-requisite:** CHEM 3310. **Prerequisites:** CHEM 1312/1112.

#### CHEM 3320: Inorganic Chemistry

The study of basic inorganic chemistry including topics in descriptive inorganic chemistry, molecular orbital theory, bonding, inorganic reactions and mechanisms, stereochemistry, and symmetry. **Co-requisite:** CHEM 3121. **Prerequisites:** CHEM 1312/1112.

#### CHEM 3121: Inorganic Chemistry Laboratory

Syntheses, characterizations, and transformations of inorganic and organometallic compounds. **Co-requisite:** CHEM 3320. **Prerequisites:** CHEM 1312/1112.

#### CHEM 3342: Organic Chemistry I

Emphasis on structure-reactivity relationships, nomenclature, stereochemistry, reaction pathways, and synthesis. **Co-requisite:** CHEM 3143. **Prerequisites**: CHEM 1312/1112.

#### CHEM 3143: Organic Chemistry I Laboratory

Basic experiments in organic chemistry. **Co-requisite:** CHEM 3343. **Prerequisites:** CHEM 1312/1112.

#### CHEM 3344: Organic Chemistry II

Continuation of CHEM 3342, including an introduction to molecular biochemistry. **Co-requisite:** CHEM 3145. **Prerequisite:** CHEM 3342.

#### CHEM 3145: Organic Chemistry II Laboratory

Continuation of CHEM 3143 including an introduction to the characterization of organic compounds using classical and spectroscopic methods. **Co-requisite:** CHEM 3344. **Prerequisite:** CHEM 3143.

#### CHEM 3352: Physical Chemistry I

Properties of substances in the gaseous, liquid, and solid states; chemical thermodynamics; chemical equilibria; phase equilibria; and electrochemistry. **Co-requisite:** CHEM 3153. **Prerequisites**: CHEM 3310/3111, CHEM 3344/3145, MATH 3404, PHYS 2325/2125 and PHYS 2326/2126.

#### CHEM 3153: Physical Chemistry I Laboratory

General experiments in physical chemistry. Co-requisite: CHEM 3352.

#### CHEM 3354: Physical Chemistry II

Continuation of CHEM 3352. Atomic structure, chemical bonding, chemical kinetics, statistical mechanics, and spectroscopy. **Co-requisite:** CHEM 3155. **Prerequisite:** CHEM 3352 and MATH 3203.

#### CHEM 3155: Physical Chemistry II Laboratory

Continuation of CHEM 3153. **Co-requisite:** CHEM 3354. **Prerequisite:** CHEM 3352/3153.

#### CHEM 4240: Spectroscopy

Study of modern analytical methods including atomic absorption, vibrational, nuclear magnetic resonance, and mass spectroscopies. Spectral interpretation and structural correlation are emphasized. **Prerequisite:** CHEM 3344/CHEM 3145.

#### CHEM 4141: Advanced Chemical Laboratory Methods

Advanced syntheses and analyses of organic and inorganic compounds. Synthetic techniques may include vacuum, pressure, inert atmosphere, and photochemical systems. Analytical methods include wet chemical, chromatographic, and spectroscopic methods. **Prerequisite:** CHEM 4312/4113 and CHEM 4240.

#### CHEM 4312: Instrumental Analysis

Introduction to instrumental methods of analysis and separation including electrochemical, spectroscopic, and chromatographic techniques. Fundamental theories and instrumentation of these techniques will be emphasized. **Prerequisite:** CHEM 3354/3155 or consent of instructor.

#### CHEM 4113 Instrumental Analysis Laboratory

Experiments utilizing absorption and emission spectroscopy, mass spectrometry, electroanalytical chemistry, and chromatography. **Co-requisite**: CHEM 4312.

#### CHEM 4330: Advanced Inorganic Chemistry

Theories of inorganic chemistry including atomic, molecular, and crystal structure; thermochemical and electrochemical properties; acidity; solvent systems; and coordination compounds. **Prerequisite**: CHEM 3320/3121 and CHEM 3354/3155 or consent of instructor.

#### CHEM 4334: Biochemistry I

Chemistry and functions of biomolecules: proteins, carbohydrates, lipids, and nucleic acids; bioenergetics of the cell; and protein synthesis. **Co-requisite:** CHEM 4135. **Prerequisites**: CHEM 3344/3145.

#### CHEM 4135: Biochemistry I Laboratory

Exercises designed to develop skills in using biochemical techniques and to illustrate the chemical and physical properties of biomolecules. **Co-requisite**: CHEM 4334.

#### CHEM 4336: Biochemistry II

Structure, function, chemistry, and metabolism of lipids and nucleic acids; bioenergetics and control mechanisms in cellular metabolism; interrelationships of metabolic pathways; ion channels and pumps; biosynthesis of membrane lipids and steroids; nucleic acid replication, recombination and repair, and the control of gene expression. **Prerequisites**: CHEM 4334/CHEM 4135.

#### CHEM 4346: Advanced Organic Chemistry

The advanced study of organic structure, synthesis, and reaction mechanisms. Topics include applications of molecular orbital theory and valence bond theory, organic reaction mechanisms, migrations, selective functional group interconversions, and retro-synthetic analysis of organic compounds. **Prerequisite:** CHEM 3344/3145 and CHEM 3354/3155.

#### CHEM 4370 & 4371: Undergraduate Internship Program

An 8- to 16-week program offering a learning experience in an off-campus environment. **Prerequisite**: Consent of departmental chair.

#### CHEM 4191: Seminar

Reports on current literature and research in chemistry. **Prerequisite**: Senior standing.

#### CHEM 4395: Undergraduate Research

Directed chemical or biochemical research involving a problem of mutual interest to the student and a member of the chemistry faculty. An oral presentation and a written report of research results by the student are required at the conclusion of the project. May be repeated once for credit. **Prerequisite**: Senior standing and approval of departmental chair.

#### CHEM 4398: Special Topics in Chemistry

The study of a selected topic in chemistry, such as organic synthesis, polymer chemistry, industrial chemistry, catalysis, organometallic compounds, reaction mechanisms, and process analytical chemistry. **Prerequisites**: Senior standing and approval of departmental chair. May be repeated once for credit when topic changes.

#### CHEM 4199 - 4399: Independent Study

Independent study in specific areas of chemistry not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

## Chinese (CHIN)

#### CHIN 1411: Beginning Chinese I

Beginning Chinese I is designed for the student having little or no exposure to the Chinese language. This course concentrates on developing the skills of: listening comprehension; speaking, reading; and writing. Class conversation is a key element in the instruction. Course also includes basic vocabulary, grammatical structure, and culture.

#### CHIN 1412: Beginning Chinese II

Continued study of modern Standard Chinese for students who have had the equivalent of one semester of college Chinese. Basic skills are emphasized, including elementary Mandarin pronunciation, grammar, and orthography (in

both Pinyin and characters). **Prerequisite:** Grade of C or better in CHIN 1411 or consent of instructor.

#### CHIN 2311: Intermediate Chinese I

This course further develops the four basic language skills, with an emphasis on listening and speaking the acquisition of 300 simplified Chinese characters for short writing assignments on topics used in the textbook. Students will be able to recognize 650 characters by the end of this course. **Prerequisite:** CHIN 1412 or permission of the instructor.

#### CHIN 2312: Intermediate Chinese II

This course further develops the four basic language skills, with an emphasis on listening and speaking and the acquisition of 300 simplified Chinese characters for short writing assignments on topics used in the textbook. Students will be able to recognize 900 characters by the end of this course. **Prerequisite:** CHIN 2311

## Criminal Justice (CRIJ)

#### CRIJ 1301: Introduction to Criminal Justice

This course analyzes the structure, functions, and relationships of the components of the criminal justice system (police, courts, corrections). Current issues in criminal justice are emphasized.

#### CRIJ 2302: Criminal Justice: Issues and Applications

The study of contemporary issues among the major components of the criminal justice system: law, police, courts, and corrections; and how these issues affect American society. Open to criminal justice and non-criminal justice majors.

#### CRIJ 2332: Introduction to American Policing Practices

An examination of the critical issues faced by American police through analyses of research relating to the historical, sociological, and legal bases for policing with an emphasis on contemporary trends in law enforcement.

# CRIJ 3302: Deviant Behavior and its Social Impact (Same as SOCI 3302)

Study of various definitions, probable sources, and major effects of social deviance. Emphasis on evaluating strategies for reducing such deviance.

#### CRIJ 3310: Ethical Issues in Criminal Justice

A study of ethical issues facing the criminal justice system. Problems confronting law enforcement, the courts and the juvenile and correctional systems are addressed.

#### CRIJ 3311: Administration of Criminal Justice Agencies

Principles and practices of administration and their application to criminal justice. Relationship of theoretical administrative concepts and practical criminal justice problems.

#### CRIJ 3320: Criminology

An examination of theoretical explanations of offenses and societal reactions. Also considers models of treatment, the nature and extent of crime, and control of crime.

#### CRIJ 3322: Probation and Parole

The structure, organization and operation of probation and parole services. Emphasis is placed on applicable state statutes and administrative guidelines.

#### CRIJ 3325: Law and Society

A study of the problems of defining criminal conduct and the appropriate social responses in a democratic society. Emphasis is placed on the adjudication of social issues, the role of discretion and ethical considerations for the criminal justice practitioner.

#### CRIJ 3326: Criminal Law

An examination of the general doctrines of substantive criminal law and their application in the Texas Penal Code. Subjects considered include history and development of criminal law, definitions and elements of principal crimes, criminal liability, defenses to criminal prosecution, and criminal penalties.

#### CRIJ 3328: White-Collar Crime (Same as SOCI 3328)

Study of the causes, consequences, and control of white-collar crime.

#### CRIJ 3330: Organized Crime and Political Corruption

Studies the origins and contemporary forms of organized crime, including traditional aspects, and proposes certain strategies for combating its influence. Special emphasis is placed on the direct connection between organized crime and political corruption.

#### CRIJ 3340: Victimology

An analysis of the literature, research and current trends concerning the victim in the criminal justice system. Includes the history of the victims' movement, victim rights and compensation, and the impact of victimization on the individual, family, workplace, and community.

#### CRIJ 3344: Drugs, Behavior and Criminal Justice

This course provides an overview of drug abuse including the use, manufacture and distribution of legal and illegal drugs. Included is a brief review of the pharmacological effects of drugs on behavior and its interaction with crime. A review of American anti-drug policy is included.

#### CRIJ 3350: Domestic Violence

This course examines child abuse and neglect, sibling abuse, spousal abuse, elder abuse, gay and lesbian abuse, special populations, women and violence, ritualistic abuse and the consequences of domestic violence. Also included is a study of the CJ system's response to domestic violence.

#### CRIJ 4305: Juvenile Delinquency (Same as SOCI 4305)

Analysis of the extent, distribution, and varieties of juvenile delinquency. Emphasis on using sociological theories and research to examine delinquency causation and prevention.

#### CRIJ 4306: Drug Abuse Counseling

Intended primarily for social work and law enforcement support, this course studies the theory and practice of drug abuse counseling and rehabilitation.

#### CRIJ 4307: The Juvenile Justice System

The history, philosophy, and evaluation of the juvenile court, and juvenile practices and procedures; a study of juvenile law and the role of police, correctional, and treatment officers.

#### CRIJ 4313: Corrections Theory and Practice

A study of the concepts of punishment and rehabilitation and of the corrections process from conviction to release: sentencing, incarceration, treatment, and loss and restoration of rights.

#### CRIJ 4314: Community-based Corrections

A survey of diversionary practices and treatment programs available to offenders in a local context. Selected nationally recognized models will be compared and contrasted. Focus of course is on institutional corrections. **Prerequisite:** CRIJ 3320.

#### CRIJ 4315: Correctional Counseling

Counseling psychology with emphasis on principles and procedures; the theoretical foundations and techniques and processes of correctional psychology; psychology and counseling as applied to diversion programs, and adult and juvenile rehabilitation. **Prerequisite:** CRIJ 3320.

#### CRIJ 4322: Criminal Justice Research Methods

Studies the methods by which factual information is generated on crime and the criminal justice system. Topics include experiments, surveys, observation, unobtrusive techniques, measurement, statistics, data analysis, and ethics in research.

#### CRIJ 4332: Criminal Investigation

A study of methods of obtaining and reporting information from the crime scene, victims, complainants, witnesses, and suspects. Equal concern is given to the investigation of specific crimes. **Prerequisite:** CRIJ 2332 or CI.

#### CRIJ 4333: Community Policing

This course will describe the historical development of community policing. Students will be introduced to the theoretical foundations of community policing and emphasis will be placed on describing how community policing attempts to ameliorate the problems associated with criminal behavior.

#### CRIJ 4340: Crimes of Violence

Analyzes the incidence, patterns, and causes of serial or chronic criminal violence, the characteristics of particular crimes (murder, robbery, rape, domestic abuse, and terrorism), and society's reaction to such violence.

#### CRIJ 4341: Criminal Procedure

Federal and state laws and rules of criminal procedure prior to trial. Subjects considered include law of arrest, search and seizure, interrogation and confession, identification procedures, etc. with emphasis on constitutional restraints imposed on law enforcement. **Prerequisite:** CRIJ 3320 and CRIJ 3326.

#### CRIJ 4345: Evidence

An analysis of the law regarding the collection of evidence at a crime scene, preserving the chain of evidence, and its presentation at criminal court. Includes discussing the evolution of the law of evidence in the United States, defining the different types of evidence, solving the problems inherent in their differences, and comparing state and federal rules of evidence. **Prerequisite:** CRIJ 3326.

#### CRIJ 4350: Comparative Criminal Justice

A comparative study of modern criminal justice systems. The formal structure and informal operation of the various criminal justice models are examined, along with the cultural and historical environment in which they have developed and exist.

#### CRIJ 4355: Senior Seminar in Criminal Justice

The policy cycle is studied in relation to critical issues framed by ideological positions labeled "due process" and "crime control." A model for analyzing public policy is introduced. Participants are expected to formulate and defend policy proposals. **Prerequisite:** successful completion of upper-division core courses in criminal justice.

#### CRIJ 4360: Topics In Criminal Justice

The study of a contemporary problem in criminal justice. May be repeated once for credit when content changes.

#### CRIJ 4370 & 4371: Internship Program

An 8 to 16 week program offering a learning experience in an off-campus environment. **CR/NC option. Prerequisite**: Consent of intern instructor. No more than three semester hours of internship program credit may apply to fulfillment of the major requirements in criminal justice.

#### CRIJ 4199-4699: Independent Study

Independent study in specific areas of criminal justice not covered by organized undergraduate courses. A maximum of six credit hours of independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

### Economics (ECON)

#### ECON 1301: Introduction to Economics [TCCN: ECON 1301]

A non-technical introduction to the economic way of thinking. Economic concepts are developed and applied to decisions faced by consumers, workers, firms, and government. Will not satisfy economics requirements in the School of Business Administration. May not be taken for credit by economics majors or minors.

#### ECON 2301: Principles of Economics I [TCCN: ECON 2301]

Scope and methodology of macroeconomics. Structure and functioning of the American economy. Develops principles useful in understanding the origin and nature of recession and inflation. Reviews monetary and fiscal policy tools for economic stabilization.

#### ECON 2302: Principles of Economics II [TCCN: ECON 2302]

Scope and methodology of microeconomics. Economic principles to describe consumer and business behavior and the processes of price determination and resource allocation. Application of economic tools to select problems in competition, international trade and taxation.

#### ECON 3305: Comparative Economic Systems

A survey of historical and contemporary methods of organizing a society's economic activity. The basic nature and ideology of capitalism and socialism are examined through case studies. Special attention is given to the current U.S., Russian, Chinese, and Japanese economies. Also recommended for majors in political science, sociology, history and other non-business fields. Students may not receive credit for both ECON 2305 and 3305.

#### ECON 3310: Economic Issues In Public Policy

The economic aspects of policy issues involving immigration, energy, budget deficits, free trade and defense are examined. The economic aspects of each are identified and policy options are evaluated.

#### ECON 3311: Money, Banking and the Federal Reserve System

Introduction to the role of money in a market economy with special attention given to the commercial banking system and its relation to the Federal Reserve System. **Prerequisites**: ECON 2301 and ECON 2302.

#### ECON 3314: Intermediate Microeconomic Analysis

Examines the mechanics of price determination in different competitive environments as well as the impact of government policies involving subsidies, quotas, price ceilings and taxation. The implications of economic concentration and the application of anti-trust laws to preserve competition are also reviewed. **Prerequisites:** ECON 2301 and ECON 2302.

#### ECON 3317: Intermediate Macroeconomic Analysis

A study of the basic elements of Keynesian economics and its implications for understanding and directing the national economy. Economic policy debates over the nature of inflation, growth, unemployment and international trade are explored with special attention being given to monetarism supply-side and rational expectations ideas. **Prerequisites:** ECON 2301 and ECON 2302.

#### ECON 4310: Central Banking and Monetary Policy

Study of the Federal Reserve System from its inception to present. Topics include Federal Reserve history, organization and operation, monetary theory and policy, and the relationship between money and economic activity. **Prerequisites:** ECON 2301 and ECON 2302.

#### ECON 4320: Managerial Economics

Analytical approach to business decision-making. Primary attention is given to economic decision models and their application to business problems. **Prerequisites:** ECON 2301 and ECON 2302. **Recommended**: six hours of math and three hours of statistics.

#### ECON 4330: International Trade

A review of the rationale for trade between nations, the nature of trade balances, barriers, methods for resolving trade deficits, foreign exchange markets and international debt. **Prerequisites**: ECON 2301 and ECON 2302.

#### ECON 4340: Economics of Growth and Development

Strategies and policies for encouraging economic growth and development with special emphasis on the role of indigenous institutions. The status of less developed nations and the nature of the development process are reviewed.

#### ECON 4350: Topics in Economics

The study of a current national or international economic issue. May be repeated once for credit when topic changes. **Prerequisite**: six hours of principles of economics.

#### ECON 4360: Environmental Economics

Concepts, tools of analysis, criteria and policy formulation related to areas of resource conservation and pollution abatement. **Prerequisites**: ECON 2301 and ECON 2302.

#### ECON 4199-4699: Independent Study

Independent study in specific areas of economics not covered by organized undergraduate courses. A maximum of six credit hours for independent study may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# English (ENGL)

#### ENGL 1301: Grammar and Composition I [TCCN: ENGL 1301]

Introduces the student to a range of writing strategies, focusing on the mechanics involved in grammar, rhetoric, and usage.

#### ENGL 1302: Grammar and Composition II [TCCN: ENGL 1302]

Affords students the opportunity to further develop their ability to communicate effectively through written discourse, primarily in the persuasive or argumentative essay. **Prerequisite:** ENGL 1301.

#### ENGL 2310: Literary Appreciation [TCCN: ENGL 2341]

Study of drama, fiction, and poetry as literary genres or topics such as literature and science.

#### ENGL 2322: English Literature to the 1780's [TCCN: ENGL 2322]

Selected writers from the Old English period to the Romantic period: the Beowulf poet, Chaucer, Shakespeare, Milton, Pope, Swift, and Johnson, among others.

# ENGL 2323: English Literature from the 1780's to the Present [TCCN: ENGL 2323]

Selected writers from the Romantic period to the present: Blake, Byron, the Shelleys, the Brownings, the Brontes, G. Eliot, Hardy, Shaw, Conrad, Joyce, Lawrence, and Dylan Thomas, among others.

#### ENGL 2350: American Literature Survey [TCCN: ENGL 2326]

Major and representative American writers from the seventeenth century to the present.

# ENGL 2362: World Literature through The Renaissance [TCCN: ENGL 2332]

Selected writers from Homer through the late Renaissance, with special attention to classical and continental literature: Sophocles, Aristotle, Virgil, Dante, Rabelais, Cervantes, Marlowe, Donne, and others. Periods and writers covered vary from year to year.

# ENGL 2363: World Literature since The Renaissance [TCCN: ENGL 2333]

Selected writers from the seventeenth century to the present, with special attention to continental literature: Moliere, Swift, Voltaire, Goethe, Dostoevsky, Chekhov, Ibsen, Mann, Kafka, Camus, and others. Periods and writers covered vary from year to year.

#### ENGL 3301: Advanced Writing

Advanced study, with regular writing assignments, of the principles and techniques of expository writing.

#### ENGL 3308: Writing Literary Analysis and Interpretation

Intensive practice in reading and writing about poetry, prose fiction, and drama, with emphasis on basic critical terms and close analysis of the text and an introduction to critical theory. The course will emphasize the process of writing critical papers. Required of English majors.

#### ENGL 3314: Creative Writing

Studies in composing and evaluating creative writing. Designed to afford students an opportunity to write under supervision, to learn techniques of expression, and to establish standards of criticism. May be repeated once for credit with consent of instructor.

#### ENGL 3375: Modern Grammar

Basic principles of modern English grammar and usage, including a study of traditional grammar.

#### ENGL 3376: Contrastive Linguistics

Course compares phonemic, morphological and syntactical differences between English and a sampling of other languages represented in the public schools. It seeks to provide the prospective teacher with the opportunity to identify sources of difficulty experienced by students for whom English is a second language. Students will also study works by international writers. Students are required to tutor a limited English-proficient student for a minimum of 15 hours.

#### ENGL 3385: History of the English Language

Historical and structural study of developments in English sounds, forms, inflections, syntax, derivations, and meanings.

#### ENGL 4300: Old and Middle English Literature

Study of Old and Middle English literature in translation, including such works as the Anglo-Saxon Chronicle, Beowulf, the Canterbury Tales, Pearl, and medieval romances. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4305: Renaissance Poetry and Prose

Study of the development of English literature from 1500 to 1660: Sidney, More, Jonson, Spenser, Donne, Shakespeare, Milton, and others. Emphasis is on poetry and non-dramatic prose. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4310: Shakespeare

Study of Shakespeare's major plays: comedies, tragedies, and histories; and plays by such contemporaries as Ben Jonson, John Webster, and Beaumont and Fletcher. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4315: Restoration and Eighteenth-Century Literature

Important writers and literary trends from 1660 to 1783: Dryden, Pope, Johnson, Swift, Addison, Steele, Goldsmith, Boswell, and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4320: The Romantic Period

Representative English and continental writers from the 1780's to the 1830's: Wordsworth, Coleridge, Byron, Keats, and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4325: Victorian Literature

Important writers and literary traditions from 1832 to 1900: Tennyson, Dickens, Browning, Arnold, Carlyle, Macaulay, Mill and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4330: English Twentieth-Century Literature

Important writers and literary trends from 1900 to the present: Conrad, Shaw, Joyce, Lawrence, Woolf, Waugh, Yeats, Cary, and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4335: The English Novel

Development of the English novel from Defoe to the present. Periods covered vary from year to year. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4341: Genre Studies in American Literature

Intensive study of one genre (poetry, novel, short story, or drama) in American literature with an emphasis on the development of techniques, forms, and styles. The course will include a variety of critical approaches to the genre and will require extensive reading, research, and writing. The course may be repeated once for credit when content changes. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4345: American Literature through the Romantic Period

Authors and literary trends from 1620 to 1835. This course may include works from the following authors: Bradstreet, Taylor, Franklin, Edwards, Child, Sedgwick, Murray, Cooper, Irving, and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4348: American Renaissance

Detailed study of American authors from 1835 to 1865. The course may include works by the following authors: Emerson, Thoreau, Hawthorne, Poe, Douglass, Jacobs, and the sentimental novelists. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4350: American Realism

Important writers and literary trends from 1865 to 1920: Whitman, Dickinson, Twain, Howells, James, Crane, Norris, Dreiser, Robinson, and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4355: American Twentieth-Century Literature

Important writers and literary trends from 1900 to the present: Dreiser, Fitzgerald, Hemingway, Faulkner, Frost, Eliot, O'Neill, Miller, and others. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4360: Studies in World Literature

Detailed study of selected themes, literary types, and authors in world literature. Content varies from year to year. May be repeated once for credit when content changes. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4362: Classical Literature in Translation

Intensive study of the literature of the Greeks and Romans in translation. The course will include the study of a variety of ancient authors and genres (i.e., drama, eopic and lyric poetry, historiography, satire, Greco-Roman mythology). **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4165-4365: Special Topics in Literary Study

Select topics in literary study. The course may focus on a single author or combination of authors; a literary movement; a theme; or a particular area of scholarly pursuit such as literary theory. May be repeated once for credit when content changes. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4368, 4668: Literary Settings and Influences

Studies particular sites associated with works of literature, regions that influenced an author's literary development, and collections of manuscripts and other artifacts relevant to the study of an author and his work. The course combines classroom experience with travel. No more than six semester hours of travel/study courses may be applied to the major or teaching field requirements in English. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4376: The Nature of Language

A study of the nature of human language and of linguistic science; an introduction to speech sounds, syntax, semantics and morphology of English; an inquiry into nonverbal patterns of communication; language in society; relationship of language to thought; language will also be explored through literature.

#### ENGL 4380: The History and Practice of Rhetoric

A survey of classical texts of the rhetorical tradition from ancient times to the present. **Prerequisite:** ENGL 3308, or permission of the instructor

#### ENGL 4397: Senior Seminar

This course provides advanced students an opportunity to engage in close readings of texts in historical-literary context and to pursue independent research. Required of English majors. **Prerequisite:** 24 hours of English.

# ENGL 4687: Practicum in Teaching English as a Second/Foreign Language

Internship-like experience for prospective teachers of learners of English. Student will be under the supervision of TESL faculty and an administrator at the location where English is taught to children or adults. Course can be offered as a Study Abroad course. **Prerequisite**: ENGL 4377 and ENGL 4378, or consent of instructor. Course includes a practicum of at least 50 hours.

#### ENGL 4199-4699: Independent Study

Independent study in specific areas of English not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# French (FREN)

# FREN 1401: Beginning French I [TCCN: FREN 1311, 1411, or 1511]

Designed for those students who have minimal or no experience with the language, this course introduces the skills of reading, writing and pronouncing French. These skills are supported by grammatical exercises and oral practice. The course also includes an introduction to French history and culture.

# FREN 1402: Beginning French II [TCCN: FREN 1312, 1412 or 1512]

More advanced study and use of oral expression and writing. **Prerequisite:** FREN 1401 or CI.

#### FREN 2301: Intermediate French I [TCCN: FREN 2311]

An intermediate reading course in French. Designed to strengthen students' grammar, vocabulary, and skills in reading and translation. **Prerequisite:** FREN 1402 or CI.

#### FREN 2302: Intermediate French II [TCCN: FREN 2312]

Readings in Prose and Poetry with continued grammar study. **Prerequisite:** FREN 2301 or CI.

#### FREN 3315: Advanced Grammar and Composition

Detailed study of French grammar, with regular assignments in composition. Course taught in French. **Prerequisite:** FREN 2302 or CI.

#### FREN 3320: Major French Writers

Readings in selected masterpieces of French literature. May be repeated once for credit when content changes. Course taught in French. **Prerequisite**: FREN 2302 or CI.

#### FREN 4199-4699: Independent Study

Independent study in specific areas of French language or literature not covered by organized undergraduate courses. A maximum of six credit hours may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# General Studies (BGST)

#### BGST 4200: Senior Project

Capstone project for Bachelor General Studies students. An integrative project is prepared under the guidance of an advisor. **Prerequisite:** CI.

# Geography (GEOG)

#### GEOG 1313: World Regional Geography [TCCN: GEOG 1303]

Analyzes cultural patterns in terms of physical, locational, social and economic processes. World regions are described and compared.

#### GEOG 3320: Physical Geography

Provides students the opportunity to acquire a general understanding of physical systems that affect the environment. Relationships among climate, landforms, soils and vegetation will be presented in a geographical perspective.

#### GEOG 3325: North American Geography

Landscapes of the United States and Canada will be surveyed through a regional approach with emphasis on land use patterns, population dynamics, resources and spatial interactions.

#### GEOG 4310: Geography of Europe

A regional analysis of the geographic features of Europe which have affected its history and culture such as the physical landscape, climatology, and built environment. This course includes a geographic study of cities, ethnic relations and disputes, geolinguistics and politics, demography, industry, and history. **Prerequisite:** GEOG 1313 or CI.

#### GEOG 4330: Geographic Information Systems

Fundamentals of geographic information systems, including data capture, storage, processing, and output. Applications to various problems in the natural and social sciences.

#### GEOG 4360: Cartography and Remote Sensing

Map interpretations and construction and applications of geographic information systems and remote sensing methods. **Prerequisite**: three hours of geography or consent of instructor.

#### GEOG 4365: Topics in Geography

Studies in geography to include such topics as historical geography, economic geography, and cultural geography. May be repeated once for credit when topic varies.

#### GEOG 4199-4699: Independent Study

Independent study in specific areas of Geography not covered by organized undergraduate courses. A maximum of six credit hours for independent study

course may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair required.

# Geology (GEOL)

#### GEOL 3310: Physical Geology and Astronomy

Study of processes that take place in the solid earth and the role of the earth in space.

#### GEOL 3314: Oceanography and Meteorology

Basic concepts of oceanography and meteorology with emphasis on the effects of the oceans and the atmosphere on man. Experimental methods used in both fields will be included.

# German (GERM)

# GERM 1401: Elementary German Grammar: I [TCCN: GERM 1411]

An audio-lingual and communicative approach to teach all facets of the language in a cultural setting with an emphasis on oral performance. For beginning students.

# GERM 1402: Elementary German Grammar: II [TCCN: GERM 1412]

A continuation of GERM 1301. An audio-lingual and communicative approach to teach all facets of the language in a cultural setting with an emphasis on oral performance. **Prerequisite**: GERM 1401 or CI.

#### GERM 2301: Intermediate Conversation and Composition: I [TCCN: GERM 2311]

A review of German grammar combined with 20th century readings. Composition and oral discussion emphasized.

#### GERM 2302: Intermediate Conversation and Composition: II [TCCN: GERM 2312]

More advanced study and use of oral expression and writing.

#### GERM 3315: Advanced Grammar and Composition

Detailed study of German grammar, with regular assignments in composition.

#### GERM 3320: Major German Writers

Readings in selected masterpieces of German literature. May be repeated once for credit when content changes.

#### GERM 4199-4699: Independent Study

Independent study in specific areas of German language or literature not covered by organized undergraduate courses. A maximum of six credit hours may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# History (HIST)

#### HIST 1301: United States History I [TCCN: HIST 1301]

A survey of the significant diplomatic, economic, political, and social developments in the United States from the colonial period through the Civil War and reconstruction. May be taken in fulfillment of the statutory requirements for a baccalaureate degree.

#### HIST 1302: United States History II [TCCN: HIST 1302]

A survey of the significant diplomatic, economic, political, and social developments in the United States since reconstruction. May be taken in fulfillment of the statutory requirements for a baccalaureate degree.

#### HIST 2321: World Civilizations I [TCCN: HIST 2321]

A survey of the rise and development of the major civilizations of the world up to the modern era.

#### HIST 2322: World Civilizations II [TCCN: HIST 2322]

A survey of the historical development of the major civilizations of the world in modern times.

#### HIST 3300: Historical Methods and Research

A practical study of the historical method, research, and writing. Required of all history majors and students seeking a secondary teaching field in history.

#### HIST 3301: Patterns of World History

Advanced studies in world civilizations from earliest times to the present.

#### HIST 3352: Renaissance Europe

A study of the political, social, and economic changes in Europe during the fourteenth and fifteenth centuries. Study will focus upon the artistic, literary, and intellectual developments in Italy.

#### HIST 3353: Reformation Europe

A history of Europe in the sixteenth century. Special emphasis on the rise and spread of Protestantism and the Catholic Reformation.

#### HIST 3354: Medieval Europe

The fusion of classical, Christian, and barbarian cultures and the emergence of a distinctly Western civilization in medieval Europe from the fourth to the fifteenth century.

#### HIST 3356: Seventeenth Century Europe

A study of the major political, economic, social, cultural, scientific, and intellectual developments in Europe during the seventeenth century to 1715.

#### HIST 3357: Eighteenth Century Europe

A study of European developments in the eighteenth century, 1715-1815, focusing on the political, philosophical, cultural, and industrial revolutions that helped shape the course of modern history.

#### HIST 3358: Nineteenth-Century Europe

A study of European developments from the downfall of Napoleon to the coming of World War I (1815-1914) emphasizing the growth of liberalism, nationalism, industrialization, and imperialism.

#### HIST 3359: Twentieth-Century Europe

A study of European developments from the beginning of World War I in 1914 to the present, emphasizing the problems of the Paris peace settlement, the rise of fascism, the impact of the depression, the effects of World War II, and the shaping of the contemporary period.

#### HIST 3382: Mediterranean Civilization

The Ancient Near East and Greco-Roman civilization from the Bronze Age to the fourth century. Emphasis on contributions to the cultural heritage of the western world.

#### HIST 3383: Tudor and Stuart England

Study of the origins of modern England. Emphasis on religious reformation, religious and constitutional conflicts, civil war and revolution, and social, economic and cultural developments.

#### HIST 3395: History of Russia

A study of Russia examining the Kievan and later medieval polities, the Muskovite state, Imperial Russia, and the Soviet and post-Soviet regime to the present.

#### HIST 4320: History of Texas

Study of the development of Texas from pre-history to the modern era.

#### HIST 4322: The American South

Study of the development of the South as a historically distinct section of the United States. .

#### HIST 4323: 20th Century Presidential Leadership

A critical study of the 20th century presidents. Considers how their personality shaped their leadership and public approval and, in turn, how they affected policy decisions.

#### HIST 4331: American Social History

Traces the major themes of social change in the United States from the colonial period to the present.

#### HIST 4332: US-Global Diplomacy

A study of the US rise to international power and its relations with global partners since the Civil War.

#### HIST 4333: American Military History

A study of the American military experience from the Colonial period to the present, emphasizing the growth of the military institution and its relation with American society.

#### HIST 4334: Women in US History

An examination of the private and public lives of women in the US from precolonial times to the present, and how women's experiences have been shaped by factors such as race, class, religion, sexuality, and region.

#### HIST 4368, 4668: Field Experience in History

Provides the student with the opportunities to study historical sites and museums, use archival records, and conduct field research on a given topic which includes some travel. Classroom experiences employing the lecture and seminar methods complement the field experience. **Prerequisite**: Consent of instructor. No more than three semester hours of travel/study courses may be applied to the major or teaching field requirements in history.

#### HIST 4370: Internship Program

A 16-week program offering a learning experience in an off-campus environment. Students will work with local public and private agencies and may be asked to share experiences and discuss common problems. **Prerequisite**: Consent of instructor.

#### HIST 4371: History of Mexican-Americans

A study of the history of Mexican-Americans, tracing their history, culture, community creation, identity, and contributions to the United States.

#### HIST 4372: History of African Americans

A study of the history of African Americans from the African experience to the Civil Rights movement of the 20th Century.

#### HIST 4376: Native American History

A study of North American Indians and their relationships with citizens and governments of the United States from the eighteenth century to the present.

#### HIST 4377: American Borderlands

A study of the multiple frontiers that emerged in North America prior to the twentieth century with special emphasis on the peoples, empires, and events key to their development.

#### HIST 4379: The Age of Jackson

An analysis of American society in the period of Andrew Jackson, 1815-1848, with particular emphasis on the emergence of democratic institutions and the impact of slavery on American life and politics.

#### HIST 4384: Colonial America

A study of the peoples and events that influenced European settlement of North America from 1492 to 1754.

#### HIST 4385: Revolutionary America

A study of the peoples and events that influenced the colonial independence movement and formative period of United States history between 1754 and 1815.

#### HIST 4386: Civil War and Reconstruction

This course explores the era of the American Civil War, 1848-1877, including the growth of sectionalism and the causes of the war, the course of the conflict, and the impact of the war on social, political, and economic issues.

#### HIST 4387: Industrial and Progressive America

A study of American history from 1877 to 1917 which includes the rise of industrial America, the pursuit of empire, the Progressive Era, and foreign affairs on the eve of America's involvement in World War

#### HIST 4388: America During the World Wars

A study of American history from 1917 to 1945, which includes America's responses to the challenges of World War I, the social conflicts of the 1920's, the Great Depression, and World War II.

#### HIST 4389: America Since 1945

A study of American history since the end of World War II, which includes the expansion and contraction of the welfare state, the rise and fall of the cold war, as well as significant social and economic developments.

#### HIST 4391: Colonial Latin America

A study of European and Indian background, Iberian exploration and conquest, political, economic, cultural, and social developments to the eve of independence. .

#### HIST 4392: Modern Latin America

Traces the evolution of the countries of Latin America from the era of the colonial wars of independence to the modern period.

#### HIST 4393: Japanese Civilization

A study of the Japanese from prehistory to modern times. Emphasis on cultural and social developments.

#### HIST 4394: Chinese Civilization

A study of Chinese civilization from its origins to modern day, emphasizing cultural and social developments.

#### HIST 4395: Modern Middle East

Rise and spread of Islamic civilization, Ottoman Empire, European imperialism, rise of nationalism, Zionism and emergence of Israel, Arab-Israel conflict, impact of oil, recent Islamic reform, revolution, and resurgence.

#### HIST 4397: Topics in History

Advanced studies in history to include such areas as comparative or non-Western history, or other specialized historical topics. May be repeated once for credit when content changes.

#### HIST 4199 - 4699: Independent Study

Independent study in specific areas of history not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

### Honors (HNRS)

#### HNRS 1351: World, Text, and Image I

Comparative study in the humanities and social sciences from antiquity to the Renaissance. This seminar course takes an interdisciplinary approach to the literature, history, and art of this period. This course is writing intensive. **Prerequisite:** Invitation by the Honors Committee. Satisfies core requirement for either ENGL 1301 or ENGL 2362.

#### HNRS 1352: World, Text, and Image II

Comparative study in the humanities and social sciences from the Renaissance to the Twentieth Century. This seminar course takes an interdisciplinary approach to the literature, history, and art of this period. This course is writing intensive. **Prerequisite:** HNRS 1351 and invitation by the Honors Committee. Satisfies core requirement for either ENGL 1302 or SPCM 1315.

#### HNRS 2351: World, Text, and Image III

This seminar course takes an interdisciplinary approach to the social sciences and may include integrated study of any such fields including anthropology, history, sociology, and/or geography. This course is writing intensive. **Prerequisite:** HNRS 1352 and invitation by Honors Committee. Satisfies core requirements for Social and Behavioral Sciences.

#### HNRS 2352: World, Text, and Image IV

This seminar course takes an interdisciplinary approach to the fine and performing arts and may include integrated study of any such fields including music, theater, and/or art history. This course is writing intensive. **Prerequisite:** HNRS 2351 and invitation by Honors Committee. Satisfies core requirements for Fine and Performing Arts.

#### HNRS 2413: Honors Calculus I

Interdisciplinary approach to the development of calculus and physics. Calculus concepts will be motivated by physics concepts, giving physics concepts mathematical justification followed by experimental verification. This course covers all topics covered in MATH 2413 plus additional topics. **Prerequisite:** 

Concurrent registration in HNRS 2425 and invitation by Honors Committee. Students cannot receive credit for both HNRS 2413 and MATH 2413.

#### HNRS 2414: Honors Calculus II

Interdisciplinary approach to the development of calculus and physics. Calculus concepts will be motivated by physics concepts, giving physics concepts mathematical justification followed by experimental verification. This course covers all topics covered in MATH 2414 plus additional topics. **Prerequisite:** Concurrent registration in HNRS 2426 and invitation by Honors Committee. Students cannot receive credit for both HNRS 2414 and MATH 2414.

#### HNRS 2425: Honors University Physics I

Interdisciplinary approach to the development of calculus and physics. Calculus concepts will be motivated by physics concepts, giving physics concepts mathematical justification followed by experimental verification. This course covers all topics covered in PHYS 2325/PHYS 2125 plus additional topics. **Prerequisite:** Concurrent registration in HNRS 2413 and invitation by Honors Committee. Students cannot receive credit for HNRS 2425 and PHYS 2325/PHYS 2125.

#### HNRS 2426: Honors University Physics II

Interdisciplinary approach to the development of calculus and physics. Calculus concepts will be motivated by physics concepts, giving physics concepts mathematical justification followed by experimental verification. This course covers all topics covered in PHYS 2326/PHYS 2126 plus additional topics. **Prerequisite:** Concurrent registration in HNRS 2414 and invitation by Honors Committee. Students cannot receive credit for both HNRS 2426 and PHYS 2326/PHYS 2126.

### Japanese (JAPN)

#### JAPN 1412: Beginning Japanese II

Designed for the student having little or no previous exposure to the Japanese language, this course concentrates on developing the ability to understand, speak, read, and write in Japanese. Class conversation is a key element in the instruction. Course also includes basic vocabulary, grammatical structures, and culture. Not open to native speakers.

#### JAPN 1411: Beginning Japanese I

Designed for the student having little or no previous exposure to the Japanese language, this course concentrates on developing the ability to understand, speak, read, and write in Japanese. Class conversation is a key element in the instruction. Course also includes basic vocabulary, grammatical structures, and cultures. Not open to native speakers.

#### JAPN 2312: Intermediate Japanese II

This course continues the development of skills in Japanese conversation, composition, cultural readings, and grammar review. Not open to native speakers. **Prerequisite:** JAPN 1411, 1412, and 2311 or 4 units of high school Japanese

#### JAPN 2311: Intermediate Japanese I

This course continues development of skills in Japanese conversation, composition, cultural readings, and grammar review. Not open to native speakers. **Prerequisite:** JAPN 1411 and 1412 or 3 units of high school Japanese.

## Journalism (JOUR)

#### JOUR 2306: Media Design and Production

An introduction to print media design and production with an emphasis on the use of innovative software for designing and producing pages and panels for newspapers, magazines, and advertising.

#### JOUR 2307: Mass Media and Society [TCCN: COMM 1307]

Relationship of mass communication processes and effects on the individual and society; impact of media messages on knowledge, attitudes and behavior. Examines social, economic, political, and cultural changes around the world from the perspective of mass communication theory and practice. Provides an understanding of the historical and cross-cultural/international aspects of a variety of issues from a mass communication perspective. Emphasis on both the developed and developing nations of the world.

#### JOUR 2311: Writing for Mass Media [TCCN: COMM 2311]

Techniques of information gathering and writing for various audiences. Practice in interviewing, observation, use of Internet and documentary references that include computer information retrieval and analysis skills.

#### JOUR 2318: Beginning Digital Photography

Theory and practice of electronic photography, including photojournalistic composition for publication. The application of visual communication theories including human perception, psychology of color, and principles of design to photography and graphic design in communication.

#### JOUR 3301: Feature Writing

A study of the purposes, character, and subject matter of feature stories. Emphasis is placed on writing and marketing the feature for magazines and newspapers. Students will contribute features to the student newspaper. **Prerequisite:** JOUR 2311.

#### JOUR 3303: News Writing

Introduction to fundamental journalistic writing skills for the print media, with an emphasis on interviewing, source development and research. **Prerequisite:** JOUR 2307 and JOUR 2311.

#### JOUR 3311: Visual Design

Theory and practice of visual design. Emphasis on publication design, corporate identity and advertising layout. **Prerequisites:** JOUR 2306 OR demonstrated competency with software.

#### JOUR 3312: Publication Design

Theory and practice of newspaper, magazine, and web layout and design. Emphasis on publication design, typography, color, space and other design elements. **Prerequisite:** JOUR 2306

#### JOUR 3315: News Editing

Advanced editing for the news media. Emphasis on news judgment, the use of language, and copyediting for the print media. **Prerequisite:** JOUR 3303.

#### JOUR 3318: Media Law and Ethics

A study of the major areas of media law, including the First Amendment, libel, privacy, regulation of the broadcast media and advertising, free press-fair trial issues, reporters' privilege, copyright, and other relevant areas. **Prerequisite:** JOUR 2311.

#### JOUR 3340: Principles of Advertising

Advertising with an emphasis on the print and electronic media. Layout, design, and the evaluation of advertising campaigns are emphasized.

#### JOUR 3350: Video Production

Study of video communication for television and corporate applications with an emphasis on design, production, and evaluation.

#### JOUR 3351: Advertising Writing and Design

An intensive study of the writing of advertising copy and the principles of advertising layout for the print and broadcast media. **Prerequisite:** JOUR 3340.

#### JOUR 3360: Photojournalism

A study of use and layout of photographs in newspapers, magazines, types of printing, caption writing, the picture story, picture essay, and multi-image presentations. Students will be given the opportunity to acquire experience in print publication assignments.

#### JOUR 3375: Principles of Public Relations

Survey of public relations including the nature of communication, public opinion and persuasion, theories, principles, techniques, and media use.

#### JOUR 3380: Multimedia Production

Experience in operation of equipment used for recording, retrieving, and communicating information. Emphasis will be on message design, information delivery systems, and their application to communication theory for small and mass audiences.

#### JOUR 3385: History of Mass Media

Study of the development and growth of American media from colonial times to the present; examination of the social, economic, and political relationships of the media within historical environments.

#### JOUR 3395: Writing for Public Relations and Advertising

An examination and application of the writing skills required in public relations and advertising. Competency is developed in writing news releases, feature articles, newsletters, advertising copy, magazine articles, and brochure copy. **Note:** A student may not receive credit for both JOUR 3355 and JOUR 3395. **Prerequisites:** JOUR 2311 and JOUR 3340, or JOUR 3375.

#### JOUR 4300: Opinion Writing

Analysis of current public issues and the skill sets used in writing about those issues. Students will write editorials, columns, critical reviews, and news analysis stories. **Prerequisites:** JOUR 2311 and JOUR 3303.

#### JOUR 4310: Community Journalism

A critical study of contemporary local, state, and national current events and how they are treated by the mass media serving towns and cities or homogeneous communities within urban areas. Diversity's role in communities will be discussed.

#### JOUR 4325: Radio-Television News Writing

The study and practice of television broadcasting. Emphasis is placed upon learning the differences between print and electronic journalism news writing. Stories will be written and delivered for both radio and television. Studio and newsroom procedures will be examined. **Prerequisites:** JOUR 2311 and JOUR 3303.

#### JOUR 4329: Topics in Journalism

A study of selected journalism topics with emphasis on current ideas and literature. May be repeated once for credit when content changes.

#### JOUR 4332: Advanced News Writing and Editing

Advanced news writing and copyediting techniques. Focus on the integration of reporting, writing, and editing skills. Capstone course for journalism- news editorial option; senior standing required. **Note:** Students cannot receive credit for both JOUR 3305 and JOUR 4332. **Prerequisites:** JOUR 3315.

#### JOUR 4350: International Mass Media

Study of the role of the media under various political systems and of the impact of communication technology on national development.

#### JOUR 4361: Media Ethics

A study of the ethical issues in mass media in such areas as censorship, conflict of interest, portrayal of minorities, media as accessory to criminal action, fairness, sensationalism, and the pursuit of news and profit. Emphasis will be on journalism, public relations, advertising, and broadcasting.

#### JOUR 4363: Public Relations and Advertising Case Studies

Application and analysis of public relations and advertising principles to cases in business and industry, government, institutions, trades, and professions. **Prerequisites:** JOUR 3340, JOUR 3375.

#### JOUR 4365: Public Relations and Advertising Campaigns

Course will focus on planning, budgeting, and managing public relations and advertising campaigns in five primary areas: government, non-profit, corporate, political, and product. **Prerequisites:** JOUR 3340, JOUR 3375, JOUR 3395, JOUR 4363.

#### JOUR 4368, 4668: Field Experience in Journalism

Study of journalism facilities, personnel, procedures, and field research which includes travel. Classroom lectures and seminar methods supplement the field experience. **Prerequisite**: Consent of instructor.

#### JOUR 4370, 4371: Undergraduate Internship Program

An 8- to 16-week program offering a learning experience in an off-campus environment. **CR/NC option. Prerequisite:** 12 semester credit hours of upperdivision journalism and consent of department chair.

#### JOUR 4199-4699: Independent Study

Independent study in specific areas of journalism not covered by organized undergraduate courses. A maximum of six credit hours for independent study

courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# Latin (LATN)

#### LATN 1301: Beginning Latin I [TCCN: LATI 1311]

Designed for those students who have minimal or no experience with the language. Course introduces the skills of reading, writing, and pronouncing Golden-Age Latin. These skills are supported by grammatical exercises and a number of readings by Roman authors. The course also includes an introduction to Roman history and culture.

#### LATN 1302: Beginning Latin II [TCCN: LATI 1312]

This course will build upon the skills learned in LATN 1301. The mastering of Latin grammar will be emphasized and supported by a variety of reading and composition exercises. **Prerequisite:** LATN 1301 or consent of instructor.

#### LATN 2301: Intermediate Latin I [TCCN: LATI 2311]

An intermediate reading course in Latin, focused on Roman prose. Designed to strengthen students' grammar, vocabulary, and ability in reading and translation. **Prerequisite:** LATN 1302 or CI.

#### LATN 2302: Intermediate Latin II [TCCN: LATI 2312]

An intermediate reading course in Latin, focused on Roman prose. Designed to strengthen students' grammar, vocabulary, and ability in reading and translation. **Prerequisite:** LATN 2301 or CI.

#### LATN 3305: Readings In Latin

Selections from Cicero, Livy, Horace, Ovid, Tacitus, Pliny, and others. May be repeated once for credit when content changes. **Prerequisite: CI.** 

#### LATN 4199-4399: Independent Study

Intensive study of the Latin texts of an author or authors chosen in consultation with the advisor. Allows advanced students to explore authors not covered in other LATN courses, or to cover individual authors in more depth. **Prerequisite:** CI.

## Mathematics (MATH)

#### MATH 0303: Intermediate Algebra

A study of the real number system, fractions, decimals, absolute values, percentages, comparisons and proportional reasoning, signed numbers, solving linear equations and inequalities, simplifying expressions and functions. Does not count toward any degree program or electives.

#### MATH 1314: College Algebra [TCCN: MATH 1314]

Study of linear and quadratic equations and inequalities, logarithmic and exponential functions, graphs, systems of equations, matrices, partial fractions, binomial theorem, theory of equations. **Prerequisite**: Satisfactory score on SAT, ACT, or THEA. Credit not given for both MATH 1314 and MATH 1324 or MATH 1332.

#### MATH 1316: Trigonometry [TCCN: MATH 1316]

A study of trigonometric functions of angles, degree and radian measure, circular functions, graphs, identities, inverse trigonometric functions, polar coordinates, solution of general triangles, complex numbers. **Prerequisite:** Satisfactory score on SAT, ACT, or THEA.

# MATH 1324: Mathematics for Business and Economics I [TCCN: MATH 1324]

Topics include review of basic algebraic concepts, linear equations and inequalities, mathematics of finance, matrices, introduction to linear programming, topics in probability. **Prerequisite**: Satisfactory score on SAT, ACT, or THEA. Credit not given for both MATH 1324 and MATH 1314 or MATH 1332.

# MATH 1325: Mathematics for Business and Economics II [TCCN: MATH 1325]

Study of the real number system, sets, functions, graphs, linear equations, linear inequalities, differential and integral calculus. **Prerequisite**: MATH 1324 or

MATH 1314. (Credit not given to mathematics majors, minors, or students using mathematics as a secondary teaching specialization.).

#### MATH 1332: Contemporary Mathematics I [TCCN: MATH 1332]

Topics may include logic and mathematical reasoning, sets, problem solving, applications, networks, graphs, probability, statistics, geometry, mathematics of finance, and number theory. **Prerequisite**: Satisfactory score on SAT, ACT, or THEA. Credit not given for both MATH 1332 and MATH 1324 or MATH 1314.

#### MATH 1333: Contemporary Mathematics II [TCCN: MATH 1333]

Topics may include statistics, probability, combinatorics, game theory, voting theory, and mathematics of finance. Students who receive credit for MATH 1333 may not also receive credit for MATH 1342. **Prerequisite**: MATH 1314, MATH 1324, or MATH 1332.

#### MATH 1342: Statistics [TCCN: MATH 1342]

Measures of central tendency and dispersion, sampling, probability, testing of hypothesis, correlation and regression, and analysis of variance. **Prerequisite:** MATH 1314, MATH 1332, or MATH 1324. Credit not given for both MATH 1333 and MATH 1342.

# MATH 1350: Concepts of Modern Mathematics I [TCCN: MATH 1350]

Study of topics in logic, set theory, and conceptual foundations of elementary number systems. **Course for Interdisciplinary Studies majors only. Prerequisite:** MATH 1314 or equivalent. (Credit not given to mathematics majors or minors.)

# MATH 1351: Concepts of Modern Mathematics II [TCCN: MATH 1351]

Study of geometry and elementary probability and statistics. **Course for Interdisciplinary Studies majors only. Prerequisite**: MATH 1350 or equivalent. (Credit not given to mathematics majors or minors.)

#### MATH 2330: Discrete Structures

Study of mathematical logic, sets, combinations, relations, functions, graphs and trees, Boolean algebra, and algebraic structures. **Prerequisite:** MATH 1325 or MATH 2413 or equivalent and one high-level computer language. Students may not receive credit for both MATH 2330 and MATH 3425.

#### MATH 2412: Precalculus

A survey of college algebra, trigonometry and analytical geometry to prepare students for calculus. Topics include algebraic functions and their graphs, exponential and logarithmic functions, trigonometric functions and identities, two and three dimensional analytical geometry. Credit not given for both MATH 2412 and MATH 1314.

#### MATH 2413: Calculus I [TCCN: MATH 2413]

A study of functions, limits, continuity, differentiation of algebraic and trigonometric functions, applications of the derivative, definite and indefinite integrals with applications. **Co-requisite:** Mathematics majors must concurrently take MATH 2113. **Prerequisites:** Satisfactory math score on SAT, ACT or THEA *and* "C" or better in MATH 1316, or passing score on departmental trigonometry test, or "C" or better in MATH 2412.

#### MATH 2113: Calculus I Computer Lab

Calculus I concepts illustrated and expanded through the use of a computer algebra system. Graphing and symbolic and numerical computations will be emphasized. **Co-requisite:** MATH 2413.

#### MATH 2414: Calculus II [TCCN: MATH 2414]

A study of differentiation and integration of transcendental functions, polar coordinates, techniques of integration, sequences, series, indeterminate forms, improper integrals. **Co-requisite:** Mathematics majors must concurrently take MATH 2114. **Prerequisite:** MATH 2413.

#### MATH 2114: Calculus II Computer Lab

Calculus II concepts illustrated and expanded through the use of a computer algebra system. Graphing and symbolic and numerical computations will be emphasized. **Co-requisite:** MATH 2414.

#### MATH 2325: Functions and Modeling

Modeling using families of functions (including linear, exponential, polynomial, and trigonometric functions), conic sections, parametric equations and polar equations. Use of multiple representations, transformations, data analysis techniques, and interconnections among geometry, probability, and algebra. **Prerequisite:** MATH 2413

#### MATH 3203: Matrix Methods in Science and Engineering

Matrices and matrix algebra, determinants, systems of linear equations, Gaussian elimination, eigenvalues and eigenvectors, linear transformations, applications in science and engineering. **Prerequisite**: MATH 2414 or concurrent enrollment. Students may not receive credit for both MATH 3203 and MATH 3315.

#### MATH 3305: Ordinary Differential Equations

Study of ordinary differential equations. Emphasis is given to equations of the first order, linear equations, and solution by series. **Prerequisite**: MATH 2414.

#### MATH 3315: Linear Algebra and Matrix Theory

Study of finite dimensional vector spaces and linear transformations. Emphasis is given to the basic theory of matrices. **Prerequisite:** MATH 2414 or concurrent enrollment. Students may not receive credit for both MATH 3315 and MATH 3203.

#### MATH 3336: Abstract Algebra I

Study of groups, rings, fields, and vector spaces. Prerequisite: MATH 3425.

#### MATH 3345: Real Analysis I

Study of metric spaces, sequences, series, continuous functions, differentiation, and integration. **Prerequisites:** MATH 2414 and MATH 3425.

#### MATH 3351: Probability and Statistics for Engineers and Scientists

Fundamentals of probability and statistics with relevant engineering and science applications. Discrete and continuous random variables, statistical inference, parameter estimation, regression, experimental design, and model verification. **Prerequisite:** MATH 2414. Students may not receive credit for both MATH 3351 and MATH 4350.

#### MATH 3365: Geometric Systems

Study of Euclidean and non-Euclidean geometries. Prerequisite: MATH 3425.

#### MATH 3373: Applied Mathematics I

This course explores topics in applied mathematics as they pertain to the physical sciences. Topics include linear and nonlinear systems, Laplace transforms and Fourier series with a focus on theoretical development and physical application. Prerequisites: MATH 3305, MATH 3203, MATH 3404

#### MATH 3380: Algorithms in Applied Mathematics

Study of applications selected from descriptive statistics, combinatorics, numerical methods, and matrices utilizing the computer. **Prerequisite**: MATH 2413.

#### MATH 3404: Multivariate Calculus

Vector calculus in Euclidean n-space, functions of several variables, partial differentiation and multiple integration. **Co-requisite:** Mathematics majors must concurrently take MATH 3104. **Prerequisite:** MATH 2414.

#### MATH 3104: Multivariate Calculus Computer Lab

Multivariate Calculus concepts illustrated and expanded through the use a computer algebra system. Graphing and symbolic and numerical computations will be emphasized. **Co-requisite:** MATH 3404.

#### MATH 3425: Foundations of Mathematics

Study of elementary logic, intermediate set theory, relations, functions and countable number systems. **Prerequisite:** MATH 2414.

#### MATH 4336: Abstract Algebra II

A continuation of MATH 3336 focusing on rings, fields, and vector spaces. **Prerequisite:** MATH 3336.

#### MATH 4341: Real Analysis II

**Continuation of MATH 3345.** Study of metric spaces, sequences, series, continuous functions, differentiation and integration. **Prerequisite**: MATH 3345.

#### MATH 4342: Introduction to Complex Variables

Study of functions of a complex variable. Emphasis is given to analytic functions, differentiation, integration, series expansions. **Prerequisite**: MATH 3345.

#### MATH 4350: Theory of Probability

Study of mathematical probability theory. Emphasis is given to combinatorial analysis, axioms of probability, conditional probability, random variables, density functions, distribution functions, moments, and limit theorems. **Prerequisite:** MATH 2414 and MATH 3425.

#### MATH 4351: Applied Statistics

Emphasis on statistical thinking and real world applications. Topics include: experimental design, sampling distributions, confidence intervals, hypothesis testing, regression and correlation, analysis of variance, chi-squared tests, and non-parametric methods. **Prerequisite:** MATH 4350.

#### MATH 4373: Applied Mathematics II

Continuation of MATH 3373. Development of mathematical ideas needed to solve problems in the physical sciences. Topics include heat, wave and Laplace equations, use of Fourier methods to solve boundary value problems and the development of Sturm-Liouville Theory. **Prerequisite:** MATH 3373

#### MATH 4160: Senior Seminar

Reviews and integrates concepts from different branches of mathematics in the curriculum.

#### MATH 4380: Modeling and Numerical Analysis

Study of the development of mathematical models focusing on the numerical analysis which forms the basis for the models. **Prerequisite:** MATH 3380.

#### MATH 4195-4395: Undergraduate Research

Directed mathematical research on a problem of mutual interest to a student and a mathematics faculty member. An oral presentation and a written report are required at the conclusion of this course. May be repeated for a maximum of six credit hours. **Prerequisite:** Approval of department chair.

#### MATH 4199 - 4399: Independent Study

Independent study in specific areas of mathematics not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

## Music (MUSI)

#### MUSI 1000: Recitals, Concerts and Productions

Recital, concert and production attendance for all music majors and minors. CR/NC only.

#### MUSI 1116: Aural Skills I [TCCN: MUSI 1116]

Ear training and sight singing using material on level with study in MUSI 1311. **Co-requisites**: MUSI 1311 and MUAP 1111

#### MUSI 1117: Aural Skills II [TCCN: MUSI 1117]

Ear training and sight singing using material on level with study in MUSI 1312. **Co-requisites:** MUSI 1312 and MUAP 1112

#### MUSI 1306: Music Appreciation [TCCN: MUSI 1306]

A survey course covering elements of music and an overview of musical forms, historical periods and composers. Emphasis is placed on listening to representative repertoire.

#### MUSI 1311: Music Theory I [TCCN: MUSI 1311]

An elementary study of melody, rhythm, and diatonic tonal harmony in four voices and in simple instrumental textures. Emphasis on rudiments of music, voice leading, harmonic progression, and elemental melodic forms. **Corequisite:** MUSI 1116 and MUAP 1111.

#### MUSI 1312: Music Theory II [TCCN: MUSI 1312]

Continuing elementary study of melody, rhythm, and diatonic tonal harmony in four voices, incorporating more complex instrumental textures. Covers voice leading, harmonic progression, elemental forms and simple modulation. **Co**- **requisites:** MUSI 1117 and MUAP 1112. **Prerequisites:** Grade of C or better in MUSI 1311 and MUSI 1116.

#### MUSI 2116: Aural Skills III [TCCN: MUSI 2116]

Ear training and sight singing using material on level with study in MUSI 2311. **Co-requisites:** MUSI 2311 and MUAP 2111

#### MUSI 2117: Aural Skills IV [TCCN: MUSI 2117]

Ear training and sight singing using material on level with study in MUSI 2312. **Co-requisites:** MUSI 2312 and MUAP 2112

#### MUSI 2301: Music of the Americas

Provides students a broad and meaningful perspective on the cultural and musical history of Native Americans, African Americans, and Latin Americans, and demonstrates the significance of such music to U.S. history and culture.

#### MUSI 2308: Music Literature [TCCN: MUSI 1307]

Historical overview of music from antiquity to the present day.

#### MUSI 2311: Music Theory III [TCCN: MUSI 2311]

Advanced study of melody, rhythm, diatonic and chromatic harmony in four voices, incorporating complex instrumental textures. Covers voice leading, advanced harmonic progression, basic forms, and advanced modulation. **Corequisites:** MUSI 2116 and MUAP 2111. **Prerequisite:** Grade of C or better in MUSI 1312 and MUSI 1117.

#### MUSI 2312: Music Theory IV [TCCN: MUSI 2312]

Advanced study of melody, rhythm, diatonic and chromatic harmony in four voices, incorporating complex instrumental textures. Covers voice leading, advanced harmonic progression, forms, and further advanced modulation. Survey of post-Romantic harmony and twentieth-century techniques. **Correquisites:** MUSI 2117 and MUAP 2112. **Prerequisites:** Grade of C or better in MUSI 2311 and MUSI 2116.

#### MUSI 3120: Woodwind Methods

Instruction on woodwind instruments for music majors. Includes fundamentals of performance, essential pedagogy, maintenance of instruments and materials and literature.

#### MUSI 3122: Percussion Methods

Instruction in fundamental techniques on the most frequently used percussion instruments, both of definite and indefinite pitch. Includes fundamentals of performance, conventions of notations, essential pedagogy, maintenance of instruments and materials and literature.

#### MUSI 3123: String Methods

Instruction in fundamental techniques on string instruments. Includes fundamentals of performance, essential pedagogy, maintenance of instruments and materials and literature.

#### MUSI 3214: Advanced Conducting and Score Reading

Advanced techniques of conducting, including score analysis, interpretation, and rehearsal preparation.

#### MUSI 3220: Woodwind Methods

Instruction on woodwind instruments for music majors. Includes fundamentals of performance, essential pedagogy, maintenance of instruments and materials and literature.

#### MUSI 3221: Brass Methods

Instruction on brass instruments for music majors. Includes fundamentals of performance, essential pedagogy, maintenance of instruments, and materials and literature.

#### MUSI 3222: Percussion Methods

Instruction in fundamental techniques on the most frequently used percussion instruments, both of definite and indefinite pitch. Includes fundamentals of performance, conventions of notations, essential pedagogy, maintenance of instruments and materials and literature.

#### MUSI 3223: String Methods

Instruction in fundamental techniques on string instruments. Includes fundamentals of performance, essential pedagogy, maintenance of instruments and materials and literature.

#### MUSI 3228: Instrumental Seminar for Vocal Majors

Introductory instruction in woodwinds, brass, percussion and string instruments common in public school instrumental programs.

#### MUSI 3229: Vocal Seminar for Instrumental Majors

Basic singing technique is explored in this class designed for instrumental music education majors. Students learn the basic physical structures used in singing, the parallels in vocal production to good tone development for an instrument, and gain confidence in using their own voice in modeling melodic lines for music classes.

#### MUSI 3240: Marching Band Procedures

This course provides the student an opportunity to learn organization, administration, drill design, and music rehearsal skills used in directing the marching band.

#### MUSI 3311: Conducting

Study of the role of the conductor in musical ensembles with particular attention to the use of gesture as a means of musical communication.

#### MUSI 3313: Music Theatre

A study of the development of popular American musical theatre, its literature, dance, and comedy as they contribute to character and plot development, and as an outgrowth of our experience as a nation.

#### MUSI 3318: Musics of the World

A study of the means, language, character, and function of music in various cultures, of the interrelationship of music and other arts, and of the thinking and values which are presented through music.

#### MUSI 3319: Music History I

Survey of stylistic trends, major compositions, composers and genres from antiquity through 1750. **Prerequisite:** MUSI 2308.

#### MUSI 3320: Music History II

Survey of stylistic trends, major compositions, composers and genres from 1750 to the present. **Prerequisite**: MUSI 2308.

#### MUSI 3321: History of Jazz

A study of jazz styles, musicians, and recordings designed to foster an appreciation and understanding of the origins and periods of jazz history.

#### MUSI 3324: Exploring Music in the Elementary Classroom

Elementary school music methods for the general classroom teacher. Not for music majors.

#### MUSI 3325: Teaching Music in the Elementary School

Teaching music in the elementary school, early childhood through 5th grades. Introduction of notation, song materials, rhythm bands and appreciation methods. For music majors in all level teaching.

#### MUSI 3327: Teaching Music in Secondary Schools

Teaching music in middle and high schools. Choral and instrumental music materials, the organization of ensembles, teaching of music appreciation and theory and integration of music into the entire school curriculum. Explanation of music contests, prescribed repertoire lists and fund-raising techniques.

#### MUSI 3329: Foreign Language Diction for Singers

A study of Italian, German and French diction used in singing. Also familiarization with the use of the International Phonetic Alphabet and its ability to help create a proper pronunciation of foreign language sounds.

#### MUSI 3330: Topics in Pedagogy and Literature

Studies in music pedagogy and literature such as 18th, 19th, or 20th century harmony, vocal pedagogy, vocal literature or chamber music literature from various periods of musical history. May be repeated twice when topic changes.

#### MUSI 3335: Piano Pedagogy

An apprenticeship experience in private piano teaching through discussion and observation. Includes a holistic study of teaching piano through various elements and how they relate to the learning and performing process.

#### MUSI 4325: Choral Literature for Schools

A comprehensive study and analysis of the choral literature and organization structures of elementary and secondary school choral organizations.

#### MUSI 4326: Instrumental Materials and Band Administration

Study of techniques, materials, and literature used in the development of an instrumental program in schools.

#### MUSI 4340: Counterpoint

Study in the analysis and composition of contrapuntal style from the 16th through the 18th centuries.

#### MUSI 4343: Topics in Music Theory

Selected topics in music theory and analysis. May be repeated three times for credit when content changes. **Prerequisites**: MUSI 2117 and MUSI 2312

#### MUSI 4345: Arranging for Choral and Instrumental Ensembles

Offers students practical experience in arranging for a specific combination of voices and/or instruments.

#### MUSI 4199-4699: Independent Study

Independent study in specific areas of music not covered by organized undergraduate courses. A maximum of six credit hours of independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

### Music Ensembles (MUEN)

#### MUEN 1131, 3131: Instrumental Chamber Ensemble

Chamber music coaching and performance for various types of small ensembles.

#### MUEN 1135, 3135: Jazz Ensemble

A performing music ensemble open to all students by audition. Compositions performed are for traditional "big band" instrumentation. Several public performances per semester are required. May be repeated for credit.

#### MUEN 1140, 3140: Wind Ensemble

Open to all students with prior instrumental experience. Audition not required for enrollment, although consultation with instructor recommended. Performance of the best instrumental literature from the Renaissance to modern masterworks. May be repeated for credit.

#### MUEN 1145, 3145: University Chorale

University Chorale is open to any student who is interested in expanding his/her skills in choral singing and broadening his/her experience by performing a variety of choral literature from the Renaissance to the present day. Generally two to three concert performances will be presented each semester. No audition is necessary, although a conference with the director is required prior to enrollment. May be repeated for credit.

#### MUEN 1151, 3151: Opera Workshop/Musical Theatre Lab

Study and performance of works from the operatic and musical theatre traditions. Enrollment by consent of instructor.

#### MUEN 1155, 3155: Patriot Singers

The Patriot Singers is the premiere vocal ensemble of the university and is open to qualified students who exhibit advanced vocal and musicianship skills, as well as dedication and commitment to personal and performance excellence. In addition to departmental concerts, the Patriot Singers perform a diverse repertoire at academic, civic and professional events and tour as musical ambassadors for the university, Enrollment is by audition. May be repeated for credit.

# Music, Applied (MUAP)

For a complete list of MUAP courses, see Music Department Section

#### MUAP 1111: Harmony and Keyboard I

Beginning piano study for music majors, incorporating keyboard harmony assignments on level with MUSI 1311. **Corequisites:** MUSI 1311 and MUSI 1116

#### MUAP 1112: Harmony and Keyboard II

Second semester of piano study for music majors, incorporating keyboard harmony assignments on level with MUSI 1312. **Corequisites:** MUSI 1312 and MUSI 1117

#### MUAP 1125, 3125: Jazz Improvisation

The basics of listening skills, chord structure, and scales are used as a foundation for improvisation. May be repeated for credit.

#### MUAP 1272, 2272, 3272, 4272: Class Piano

Class piano study with emphasis on chord symbols, basic accompaniment patterns and basic reading skills. No music background is required for the freshman-level course. Successive course numbers progress in level of difficulty.

#### MUAP 2111: Harmony and Keyboard III

Intermediate-level piano study for music majors, incorporating keyboard harmony assignments on level with MUSI 2311. **Corequisites:** MUSI 2311 and MUSI 2116

#### MUAP 2112: Harmony and Keyboard IV

Continued intermediate-level piano study for music majors, incorporating keyboard harmony assignments on level with MUSI 2312. **Corequisites:** MUSI 2312 and MUSI 2117.

#### MUAP 3000: Junior Recital

Required public performance for junior-level music performance majors and senior-level pedagogy and music education majors. The recital program should contain 30 minutes of music and be approved by faculty committee. CR/NC only.

#### MUAP 4100: Recital

Required public performance for senior-level music performance majors. The recital program should include one hour of music and be approved by faculty committee.

#### MUAP 4101: Analytical/Research Project

Directed studies in music history or music theory leading to a formal paper. Required of Bachelor of Arts in Music degrees.

## Philosophy (PHIL)

#### PHIL 1301: Introduction to Philosophy [TCCN: PHIL 1301]

A survey of the major areas of traditional and modern philosophy: philosophies of knowledge, ethics, logic, aesthetics, and metaphysics.

#### PHIL 2303: Introduction to Logic

The development of formal and symbolic systems for the analysis of arguments. The scope of the course will be modern logic, including truth-functional analysis, propositional calculus, and predicate calculus.

#### PHIL 2306: Introduction to Ethics [TCCN: PHIL 2306]

A survey of the basic principles of human life with critical examination of traditional and current theories of the nature of goodness, happiness, duty, and freedom.

#### PHIL 3300: Approaches to Philosophy

A study of major areas of investigation in traditional and modern philosophy. Included are discussions of philosophies of knowledge, ethics, logic, aesthetics and metaphysics. Recommended for students who wish to take only one semester of philosophy.

#### PHIL 3301: Ancient Philosophy

The course covers Western philosophy from the pre-Socratics through Plato and Aristotle. **Prerequisite:** previous college philosophy course work or CI.

#### PHIL 3302: Medieval to Renaissance Philosophy

Course covers post-Aristotelians, the early Church Fathers through Aquinas, as well as later Scholastics and early Renaissance philosophers. **Prerequisite:** previous college philosophy course work or CI

#### PHIL 3304: Existentialism

This course addresses the themes of man's lace in the world and his relation to problems of authenticity, anxiety, and forlornness by looking at philosophers

like Kierkegaard, Nietzsche, Heidegger, and Sartre. **Prerequisite:** upper-division standing or CI.

#### PHIL 3331: Modern Philosophy

A study of the main issues and movements in philosophy from the seventeenth century through the 20th Century.

#### PHIL 4300: Studies In Philosophy

A study of such areas of philosophy as aesthetics, logic, metaphysics, and ethics. May be repeated when content changes.

#### PHIL 4330: Comparative Religious Philosophy

A study of traditional categories of the philosophy of religion with reference to such religions as Buddhism, Hinduism, Islam, Judaism, and Christianity.

#### PHIL 4199 - 4699: Independent Study

Independent study in specific areas of philosophy not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of departmental chair.

# Physics (PHYS)

#### PHYS 1301: College Physics I [TCCN: PHYS 1301]

A general study of the fundamental principles of mechanics, heat, and sound. Students may not receive credit for both PHYS 1301 and PHYS 2325. **Co-requisite:** PHYS 1101. **Prerequisite:** MATH 1316. Physics in high school is strongly recommended.

#### PHYS 1101: College Physics I Laboratory [TCCN: PHYS 1101]

Basic laboratory experiments involving mechanics and heat are carried out by majors other than chemistry, computer science, and engineering. Students may not receive credit for both PHYS 1101 and PHYS 2125. **Co-requisite:** PHYS 1301.

#### PHYS 1302: College Physics II [TCCN: PHYS 1302]

Continuation of PHYS 1301. A study of the principles of electricity, magnetism, light, and atomic and nuclear physics. Students may not receive credit for both PHYS 1302 and PHYS 2326. **Co-requisite:** PHYS 1102. **Prerequisite:** PHYS 1301/1101.

#### PHYS 1102: College Physics II Laboratory [TCCN: PHYS 1102]

Basic experiments involving electricity, magnetism, sound, and light are carried out by majors other than chemistry, computer science, and engineering. Students may not receive credit for both PHYS 1102 and PHYS 2126. **Corequisite:** PHYS 1302.

#### PHYS 2325: University Physics I [TCCN: PHYS 2325]

A general study of the fundamental principles of physics for science, computer science, and engineering majors. The principles of mechanics and heat are studied using a calculus-based approach. Students may not receive credit for both PHYS 1301 and PHYS 2325. **Co-requisite:** PHYS 2125. **Prerequisite:** MATH 2413. Physics in high school is strongly recommended.

#### PHYS 2125: University Physics I Laboratory [TCCN: PHYS 2125]

Basic laboratory experiments involving mechanics and heat are carried out by chemistry, computer science, and engineering majors. Students may not receive credit for both PHYS 1101 and PHYS 2125. **Co-requisite:** PHYS 2325.

#### PHYS 2326: University Physics II [TCCN: PHYS 2326]

Continuation of PHYS 2325. A calculus-based study of the principles of electricity, magnetism, and light. Students may not receive credit for both PHYS 1302 and PHYS 2326. **Co-requisite:** PHYS 2126. **Prerequisites:** PHYS 2325/2125 and MATH 2414.

#### PHYS 2126: University Physics II Laboratory [TCCN: PHYS 2126]

Continuation of PHYS 2125. Basic experiments involving electricity, magnetism, sound, and light are carried out. Students may not receive credit for both PHYS 1102 and PHYS 2126. **Co-requisite:** PHYS 2326. **Prerequisites:** PHYS 2125.

#### PHYS 3101: Contemporary Physics

A qualitative introduction to contemporary fields of physics research and interest. Oral presentation required. **Prerequisites:** PHYS 1302 or PHYS 2326.

#### PHYS 3310: Classical Mechanics

A study of Newton's equations of motion, simple harmonic motion, central forces, systems of particles and collisions, nonlinear dynamics and chaos, and Lagrangian and Hamiltonian formalisms. **Prerequisites:** PHYS 2325/2125 and MATH 3404.

#### PHYS 3320: Computational Physics

A study of methods of solving complex physical problems using computer algorithms. It will focus on the techniques as well as examples from physics that lend themselves to numerical calculations. **Prerequisites**: PHYS 2326/2126 and MATH 3404 or MATH 3305.

#### PHYS 4330: Electricity and Magnetism

A study of electrostatics, magnetostatics, electrodynamics in vacuum, Maxwell's equations and electromagnetic waves. **Prerequisites:** PHYS 2326/2126 and MATH 3404 or MATH 3305.

#### PHYS 4340: Modern Physics

An introduction to relativity and quantum theory. Einstein's theory of special relativity, the historical development of quantum theory leading to the Schrodinger equation, and applications of the Schrodinger equation will be studied. **Prerequisites:** PHYS 2326/2126 and MATH 3404 or MATH 3305.

#### PHYS 4395: Undergraduate Research

Directed physics research involving a problem of mutual interest to the student and a member of the physics faculty. An oral presentation and a written report of research results by the student are required at the conclusion of the project. May be repeated once for credit. **Prerequisite:** Approval of department chair.

# Political Science (POLS)

# POLS 2305: Introductory American Government [TCCN: GOVT 2305]

An examination of the United States political system, including its intellectual foundations and the design of the Constitution. Includes study of the major institutional factors, the impact of interest groups and the media, and the processes of policy-making. May be taken in fulfillment of statutory requirements for a baccalaureate degree.

#### POLS 2306: Introductory Texas Politics [TCCN: GOVT 2306]

Study of the institutions governing Texas and related policy processes. Includes a focus on the legislative process, the executive branch, and the judicial system. May be taken in fulfillment of statutory requirements for a baccalaureate degree.

#### POLS 2310: Contemporary Political Issues

Detailed study of selected topics in current politics. May include investigation of international issues, recent political trends and movements, and the nature of political science. May be repeated once for credit as topics change. **Prerequisites:** POLS 2305 and POLS 2306.

#### POLS 2320: The Study of Law

An examination of the nuances of the study of law, its purposes, and the broader problems and ethical implications of its practice. After an overview of Western legal history, the course introduces the student to the language of the law, forms of legal reasoning and analysis, the education and the work of lawyers and legal scholars. **Prerequisite:** POLS 2305 and 2306.

#### POLS 2199-2699: Independent Study

Directed study in specific areas of political science not covered in current courses. **Prerequisite**: Consent of instructor and department chair.

#### POLS 3300: United States Constitutional Development

Emphasis is placed on constitutional principles of federalism, separation of powers, judicial review, republicanism, democracy, and limited government with an analysis of the amendments made to the United States Constitution. Attention is also given to the commerce clause, due process provisions, and equal protection of the law. May be taken in fulfillment of statutory requirements for a baccalaureate degree. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3310: International Relations

An examination of the nature of the international system, of forces affecting international relations, and of the sources and resolution of conflict in international policies. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3315: American Foreign Policy

A study in the formulation and execution of contemporary American foreign policy with attention given to current policy toward major foreign powers. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3321: Jurisprudence

An examination of the intellectual and philosophical foundations of jurisprudence from Roman law through English common law to contemporary legal philosophy. The course challenges students to recognize and confront different modes of legal thought. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3330: American Political Parties

Studies significant American political parties, including third or minor parties, from the days of the Federalists and anti-Federalists to the present, with attention given to political philosophy, party platforms, and party organizations. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3335: American Campaign Politics

An analysis of the basic components of campaigns in the United States. Topics include: (1) an historical overview of elections; (2) the electoral process; (3) American voting behavior; (4) the role of media, political parties and interest groups in campaigns; (5) the strategy and tactics involved in successful campaigns. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3340: Introduction to Public Administration

An introduction to the study of the administrative branch of the United States government and the principles and processes of public administration, including those affecting state and local government. Topics include organization theory, personnel, budgeting, and bureaucratic decision-making. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3345: Urban and Municipal Government

A study of the functions and problems of urban and municipal political units. Topics include small towns and cities, taxation, home rule, minority relations, suburban politics, personnel recruitment, and intergovernmental relations. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3360: Classical Foundations of Western Political Theory

Examines the foundations of Western political theory from ancient Greece through the Roman Empire. The course will trace the development of Western political ideas and the accompanying vocabulary through Greek theater, the Pre-Socratics, Thucydides, Plato, Aristotle, the Graeco-Roman philosophers, and Cicero. **Prerequisites:** POLS 2305 and 2306.

# POLS 3361: Western Political Theory from the Middle Ages to the Renaissance

Examines the development of political theory from the end of the Roman empire through the Renaissance. Particular attention is paid to attempts to reconcile Christianity with its emerging political influence in Christian thinkers from Augustine to Aquinas and the "new" political course charted by thinkers like Christine de Pizan and Machiavelli. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3362: Western Political Theory From the Enlightenment

Examines the major contributions to Western political thought of Hobbes, Locke, Rousseau, the English Utilitarians, Marx, Nietzsche, their critics and their contemporaries with an emphasis on their continuing influence on the way we frame and discuss political questions. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3370: Comparative Politics

Analysis of institutions, processes, and issues in various political systems. Focus on industrialized and developing states, liberal and authoritarian regimes, and capitalist and command economies. Investigation of techniques of comparative analysis. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3372: The Politics of Russia and the CIS

An analysis of the evolution, structure, and functioning of the Russian and the Commonwealth of Independent States forms of government. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3375: European Political Systems

Description and analysis of the major political systems in Europe. Emphasis is placed on the political systems of Great Britain, France, and Germany. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3380: The Politics of Latin America

Description and analysis of Latin American political systems. Emphasis on the structure and function of authoritarian, democratic and revolutionary regimes. **Prerequisites:** POLS 2305 and 2306.

#### POLS 3385: Politics of Eastern Europe

Description and analysis of the newly created democracies in Central and Eastern Europe. Emphasis is placed on the process of democratization and the transition to a market economy in Central and Eastern Europe. **Prerequisites**: POLS 2305 and 2306.

#### POLS 3390: International Political Economy

Focuses on basic international economic activities in their political context. Emphasizes current political economic issues such as international debt, American economic competitiveness, and trade restrictions. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4310: International Conflict

Study of the tools nations use to wield influence in international affairs. Reviews mostly peaceful means such as economic and political sanctions, through tools of extreme violence such as nuclear war. Includes analysis of the keys to successful application of the methods and the ethical questions involved. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4315: Model United Nations

This course provides students with knowledge of the historical development of international organizations and offers basic information on the structure and purpose of the United Nations as well as an understanding of its inner workings. The top students from the course will travel to New York City to represent UT Tyler at the National Model United Nations. **Prerequisites:** POLS 2305 and POLS 2306.

#### POLS 4320: The Judicial System and Process

A study of the American judicial system and process at the local, state, and national levels. Topics include judicial selection, judicial behavior, and judicial policy-making. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4321: American Constitutional Law

An examination of the development of American constitutional law through Supreme Court interpretation. Emphasis is given to the Court's role in determining how the government functions under the Constitution, i.e., judicial review, the powers of congress and the presidency, federalism, the taxing power, and the commerce power. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4322: The Law of Civil Liberties

An examination of how the Supreme Court has interpreted the Bill of Rights and subsequent amendments. The course explores the development of due process and the Court's various approaches to conflicts over the constitutional guarantees of freedom of press, expression, religion, equal protection, civil rights and privacy. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4330: The American Presidency

An examination of the Presidency and its development in the American political system. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4335: Comparative Health Systems

This course offers an overview of selected health insurance systems. Students will learn to identify the characteristics of a social health insurance system, how success is measured and how these systems are responding to current fiscal pressures. **Prerequisites:** POLS 2305 and POLS 2306.

#### POLS 4340: Congress and Legislation

An examination of Congress and its development in the American political system, the legislative process and the influence of pressure groups. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4345: Public Policy Analysis

An analysis of the role federal, state and local administrative agencies play in policy formulation and implementation. Topics include policy development, mobilization and allocation of resources. Individual policy areas will be examined. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4349: Planning for the Urban Future

Covers the background and development of modern urban planning practices and techniques. The course examines the development and implementation of the comprehensive plan with attention to such elements as land use, housing, zoning, aesthetics, and transportation. Additional attention is given to current topics including economic development, growth management, and geographic informative systems. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4350: International Diplomacy, Law, and Organization

A detailed study of non-violent methods of international conduct. Traces the history and development of the subjects from antiquity to the modern era. Particular emphasis on post-1945 innovations in international law and institutions, and the future of global affairs as developing states gain influence. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4353: Contemporary Political Theory

A survey and analysis of trends in political theory since Nietzsche. The course considers the ongoing critique of the prevailing assumptions of western political theory. In addition to developments in liberal, conservative, and socialist political thought, the course assesses the impact of post-modern, post-colonial, and feminist approaches to political theory. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4355: American Mass Politics

Examines politics at the mass public level, with emphasis on behavior, organization, and influence. Topics include political behavior, political organizations, such as political parties and interest groups, and political communication, especially in relation to the mass media. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4360: American Political Thought

Analyzes a number of traditions in American political life, including ideas in the colonial and constitutional periods, nineteenth century individualism, arguments over sectionalism and slavery, progressivism, pragmatism, and contemporary debates over the state and the economy. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4365: Topics In Political Science

Studies in political science to include such topics as global and regional politics, American political processes, or political and social philosophy. Up to six semester hours may be applied to a degree. No topics may be repeated. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4370 & 4371: Internship Program

An 8 to 16 week program offering a learning experience in an off-campus environment. Students may be asked to share experiences and discuss common problems. **CR/NC option. Prerequisite**: POLS 2305 and 2306. Consent of department chair. No more than three semester hours of internship program credit may apply to fulfillment of the major or teaching field requirements in political science.

#### POLS 4380: Policy Making Process

Focuses on the central role of Congress in shaping public policy. The Constitution created three co-equal branches of government, but the power of the purse, the power to make laws and the power to conduct oversight into the actions of the Executive all lie with the Congress. Enrollment limited to Archer Center Fellows.

#### POLS 4385: Archer Program Government Internship

This course consists of an approved internship in a governmental or nongovernmental organization in Washington, D.C. Enrollment limited to Archer Center Fellows.

#### POLS 4390: Beyond Congress and the White House

This course covers the power structure in Washington, D.C. - especially what lies beyond Congress and the White House, where power can be the most difficult to perceive and understand. Enrollment limited to Archer Center Fellows.

#### POLS 4396: Political Research and Methodology

Studies literature review, research design and technique, and application of statistical concepts to problems of current interest in political science. Required of all political science majors and students seeking a secondary teaching specialization in political science. **Prerequisites:** POLS 2305 and 2306.

#### POLS 4199-4699: Independent Study

Independent study in specific areas of political science not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisites:** POLS 2305 and 2306 and consent of department chair.

# Sociology (SOCI)

#### SOCI 1301: Introduction to Sociology [TCCN: SOCI 1301]

An introductory course including the study of the relationship of individuals to culture, groups, and major social institutions. Representative topics may include family, religion, politics, population, education, crime, environment, and others.

#### SOCI 1306: Contemporary Social Problems [TCCN: SOCI 1306]

An analysis of current problems that influence the well-being of individuals, institutions, and societies. A goal is to provide students with a perspective to evaluate conflicts in values, individual deviance, family instability, aging, environment, terrorism, drug abuse, and other contemporary issues. Possible solutions based on sociological theory are explored.

#### SOCI 2326: Social Psychology

Theories, methods, and applications in social psychology; the nature and type of social variables and methods used to study them.

#### SOCI 2330: Social Change and Development

Global and historical patterns of change are examined as societies progress from agricultural, to industrial, and post industrial economies. Consequences of modernization of economy to the individual and to cultures are explored. The role of sociology in anticipating and planning for change is studied.

#### SOCI 3302: Deviant Behavior (Same as CRIJ 3302)

Study of various definitions, probable sources, and major effects of social deviance. Emphasis on evaluating strategies for reducing such deviance.

#### SOCI 3315: Social Stratification

Study of systems of social inequality with emphasis on modern western societies.

#### SOCI 3320: Introduction to Social Work

Study of applied social work in contemporary society.

#### SOCI 3321: Multi-Cultural Studies

Studies relations among cultural groups.

#### SOCI 3328: White-Collar Crime (Same as CRIJ 3328)

Study of the causes, consequences, and control of white-collar crime.

#### SOCI 3341: Marriage and Family Life

Examines the structure, function, and major changes in the family as a basic social institution. Emphasis on the family in the United States.

#### SOCI 3345: Medical Sociology

Studies health practices and practitioners and their relation to patients, health problems, and society.

#### SOCI 3370: Sociological Theory

Studies the development of sociological theory with emphasis on contemporary ideas and trends. Required of all sociology majors and students seeking a teaching specialization in sociology.

#### SOCI 3380: Population Problems

Examines world population trends, with emphasis on the contemporary United States. Focus is on social and economic problems resulting from population growth and imbalances as well as on solutions to these problems.

#### SOCI 3396: Social Research Methods

Designed to provide the student with the opportunity to become familiar with statistical concepts, research design, and techniques of research as applied to research problems of current interest in sociology.

#### SOCI 4305: Juvenile Delinquency (Same as CRIJ 4305)

Analysis of the extent, distribution, and varieties of juvenile delinquency. Emphasis on using sociological theories and research to examine delinquency causation and prevention.

#### SOCI 4307: Urban Sociology

Deals with problems of urban society, approaches to urban planning and contemporary problems, economic and physical concerns, and the social impact of urban life on institutions.

#### SOCI 4308: The American Community

Study of the development and structure of the American community with emphasis on the community as a complex of human relations through which a population meets its needs.

#### SOCI 4311: Majority-Minority Relations

Examines the policies and practices of dominant social groups and the responses of racial and ethnic minorities. Focus is upon the United States. **Recommended:** SOCI 3315 or SOCI 3321.

#### SOCI 4321: Methods of Social Work

Introduces basic approaches to social work, in view of current theory, utilizing a problem-solving approach.

#### SOCI 4330: Social Services

Surveys the extent and nature of social services available by agencies and institutions, public and private.

#### SOCI 4340: Sex Roles and the Life Cycle

Examines the changes and problems which males and females experience as their roles and stages in the life cycle change.

#### SOCI 4360: Topics in the Sociology of Institutions

Research and theory in selected social institutions. May be repeated once when content varies.

#### SOCI 4370, 4371: Internship Program

An 8 to 16 week program offering an opportunity for a learning experience in an off-campus environment. Students may be asked to share experiences and discuss common problems. **CR/NC option. Prerequisite**: Consent of department chair. No more than three semester hours of internship program credit may apply to fulfillment of the major and teaching field requirements in sociology.

#### SOCI 4397: Senior Research Seminar

Students are expected to design and to conduct field research, and to produce a professional-quality paper. Skills learned in previous courses are augmented and applied. This is a capstone course where students demonstrate their capacity for abstract thought, effective written and oral communication, and the full use of computer technology. **Prerequisite**: SOCI 3396.

#### SOCI 4199-4699: Independent Study

Independent study in specific areas of sociology not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

# Spanish (SPAN)

#### SPAN 1413: Introduction to Spanish I [TCCN: SPAN 1411]

Designed for the student having little or no previous exposure to the Spanish language, this course concentrates on developing the ability to understand, speak, read, and write in Spanish. Grammatical topics such as the present and preterite verb tenses are presented along with an introduction to Hispanic culture. Class conversation is a key element in the instruction.

#### SPAN 1414: Introduction to Spanish II [TCCN: SPAN 1412]

Building upon the fundamental concepts developed in SPAN 1313, this course emphasizes further practice in conversation, expanded writing assignments, and the presentation of grammatical topics such as the future and conditional tenses. **Prerequisite:** SPAN 1413 or CI.

#### SPAN 2311: Intermediate Spanish I [TCCN: SPAN 2311]

Review and continuation of fundamental concepts studied in Spanish 1313 and 1314. Cultural readings, expansion of conversational and compositional skills, and continued grammar study. **Prerequisite:** SPAN 1414 or CI.

#### SPAN 2312: Intermediate Spanish II [TCCN: SPAN 2312]

A continuation of Spanish 2311. Grammar review and expansion, cultural readings, and continuing study of conversational and compositional skills. **Prerequisite:** SPAN 2311 or CI.

#### SPAN 3335: Writing Proficiency in Spanish

This course offers content-based instruction for the acquisition of measured levels of proficiency in writing Spanish. **Taught in Spanish. Prerequisite**: CI.

#### SPAN 3345: Introduction to Hispanic Literature

A course designed to familiarize the students with the analysis of Hispanic literary texts and to provide them with the opportunity to improve their mastery of the Spanish language through commentary on and careful reading of representative literary texts. **Taught in Spanish.** 

#### SPAN 3350: Survey of Spanish Literature to 1700

A study of Peninsular literature, beginning with El Poema de Mio Cid and extending through the Baroque period, emphasizing works that give representative expression to the thought and cultural patterns of their times. **Taught in Spanish.** 

#### SPAN 3355: Survey of Spanish Literature Since 1700

A study of Peninsular works that manifest the major literary and cultural movements of their times, such as romanticism, realism, and modernism. **Taught in Spanish.** 

#### SPAN 4310: Advanced Grammar

In depth analysis of topics of the Spanish language that are usually problematic for English speakers of Spanish, such as the subjunctive mood and placing the preterite and imperfect in context. **Prerequisite**: Consent of instructor.

#### SPAN 4331: Hispanic Culture and Civilization

An exploration of Hispanic culture and civilization, emphasizing its influence on western civilization. Valuable as a support course in the humanities, fine arts, and social sciences. **Taught in Spanish. Prerequisite**: Consent of instructor.

#### SPAN 4352: Cervantes

Study and analysis of the *Exemplary Novels* and *Don Quixote*. The course also includes a consideration of Cervantes' life and times and the views of modern literary critics. **Taught in Spanish. Prerequisite**: SPAN 2312 or consent of instructor.

#### SPAN 4360: Special Studies in Spanish Literature and Language

Selected readings from various authors, genres, periods, and themes. Concentrated study of language problems. **Taught in Spanish.** May be repeated for credit when content changes.

#### SPAN 4364: Colonial Latin-American Literature

A survey course dedicated to the reading and analysis of representative Latin-American authors from the discovery of the New World to the 1820's. **Taught in Spanish.** .

#### SPAN 4365: Modern Latin-American Literature

Reading and analysis of representative Latin-American authors from the 1820's to the present. Taught in Spanish.

#### SPAN 4368, 4668: Field Study in Spanish

This course provides students with the opportunity for total immersion in the language and the culture by studying in a Spanish-speaking country. Students will have the opportunity to study historical sites and museums, to conduct

field research on a given topic which includes some travel, and to live with a Hispanic family.

#### SPAN 4370: The Spanish American Short Story

A study of this genre from the 19th century to the present with attention given to themes, narrative techniques and literary movements. The writers studied will include: Echeverria, Palma, Quiroga, Borges, Garcia Marquez, Fuentes, Castellanos and others. **Taught in Spanish. Prerequisite:** CI.

#### SPAN 4380: Topics in Spanish

This course will explore the basic vocabulary, idioms, expressions, and customs common to the Spanish-speaking professional world. The course will provide practice in the Spanish language formulas used in, for example, commercial correspondence, legal terminology, health-related professions, and marketing.

#### SPAN 4385: Spanish for Oral Proficiency

This course offers content-based instruction in small groups for acquisition of measured levels of proficiency in speaking Spanish.

#### SPAN 4390: The Contemporary Spanish American Novel

Study and analysis of works by major Spanish American novelists from the period of the Mexican Revolution to the present. Emphasis placed on themes and narrative technique in novels by writers such as Azuela, Bombal, Rulfo, Fuentes, Garcia Marquez, Vargas Llosa, Poniatowska and others. Taught in Spanish. **Prerequisite:** CI.

#### SPAN 4397: Senior Seminar

Required of all Spanish majors. The topic will vary each time the course is taught and will be announced in advance of each offering. Readings will vary accordingly. In addition to the particular topic being taught, and as a requirement of the course, the student will be expected to complete a senior paper or project related to the course topic and designed in consultation with the instructor. Papers/projects will be presented by the students in a colloquium to be held at the end of the term.

#### SPAN 4199-4699: Independent Study

Independent study in specific areas of Spanish language or literature not covered by organized undergraduate courses. A maximum of six credit hours may be applied toward an undergraduate degree. **Prerequisite**: Consent of department chair.

## Speech Communication (SPCM)

# SPCM 1311: Introduction to Communication Studies [TCCN: SPCM 1311]

Theory and practice related to the dynamics of human communication. An examination of the process of attributing and sharing meaning, and the factors influencing intrapersonal, interpersonal, small group, organizational, rhetoric and public address, and mass communication.

# SPCM 1315: Fundamentals of Speech Communication [TCCN: SPCM 1315]

Theory and practice in oral communication. Practice in and discussion of the factors influencing message creation and construction, the role of research and evidence in public discourse, adaptation to the communication situation and audience, ethical issues in public communication, argumentation and persuasion, delivery, and emphasis upon creating assignments which help students who experience excessive communication apprehension.

#### SPCM 2310: Investigating Communication

A review of research in the speech communication discipline. Broad application of both quantitative and qualitative investigative methods. Students learn to read and review work within the discipline.

#### SPCM 2318: Interpersonal Communication [TCCN: SPCM 1318]

A study of human communication process within dyadic relationships. Topics include communication styles, skills, and methods of interpersonal communication competency.

#### SPCM 2335: Argumentation and Debate

This class focuses on the theory and practice of argument in the academic debate setting. A secondary focus is on the application of debate theory to the

practice of argument in general. Emphasis is placed upon research, analysis, case construction, and actual debating.

#### SPCM 3321: Business and Professional Speaking

Principles of speech communication are applied to the communication needs of the professional. Public communication, small group communication and interviewing are explored as they relate to the business/professional arena. A practical/applied orientation is taken with an emphasis on selection interviews, problem solving, the oral presentation and advocacy of ideas.

#### SPCM 3322: Small Group Communication

A study of group process and interaction; including the concepts of leadership and effective participation.

#### SPCM 3325: Persuasive Communication

Theories of communication and psychology applied to the study of persuasion as a motivating force in human conduct. Focuses on persuasion in advertising, sales speaking, and prominent persuasive speakers including political figures. Prerequisite: SPCM 1315.

#### SPCM 3330: Improving Listening Abilities

In-depth study of the roles, processes, needs, and types of listening encountered in the classroom, workplace, and other common areas. Standardized listening tests administered.

#### SPCM 3340: Speech Activities

Participation in speech tournaments. Open to any student interested in debating. Prerequisite: Consent of instructor. May be repeated once for credit.

#### SPCM 4301: Group Interpretation of Literature

Activity course aimed at developing the student's expressiveness and interpretative abilities in presenting literature orally in multiple reading situations and at developing a deeper understanding and appreciation of literature. Emphasis on creativity in Reader's Theatre design and production.

#### SPCM 4315: Organizational Communication

An analysis of the flow of communication within formal organizations with emphasis on the interrelationship between interpersonal, small group and mass communication.

#### SPCM 4320: Communication Theory

Interdisciplinary overview of communication theories from the perspective of the anthropologist, sociologist, educator, psychiatrist, philosopher, and scientist, including theoretical models, symbolic transformation, and attitude formation change. Prerequisite: SPCM 2310 and senior standing.

SPCM 4326: Public Speaking A course in the composition and delivery of speeches for various occasions, in audience analysis, and in speech criticism. Prerequisite: SPCM 1315.

#### SPCM 4327: Contemporary Rhetoric

Investigation of the shifting rhetorical climate of today's society and the changing modes of communication. Prerequisite: SPCM 2310.

#### SPCM 4328: Corporate and Legal Advocacy

An applied rhetorical theory course investigating the theory and practice of communication strategies in corporate and legal advocacy processes. Prerequisite: SPCM 1315 or Consent of instructor.

#### SPCM 4329: Advocacy and Politics

This course is an introduction to the issues individuals face when placed in the role of being advocates for an issue, idea, or even for themselves. Enrollment limited to Archer Center Fellows.

#### SPCM 4330: Interviewing

Places interviewing in a communication perspective and explores various kinds of interviewing, such as informational, persuasive, employment, counseling, and journalistic.

#### SPCM 4331: Intercultural Communication

An examination of the relationship between communication and culture. The general concepts of intercultural communication, intercommunity communication, and relevant contrast-cultural and ethnic groups are examined. Designed to satisfy the multicultural requirements for elementary and secondary teachers.

#### SPCM 4333: Religious Communication

Explores how religious belief and action are motivated by different communication practices. Topics include 1) philosophy and theory of communication; 2) Christian, Jewish, and Muslim preachment; and 3) Apologetics or Church-State relations. Class attendance at three different religious services (Christian, Jewish, Muslim) may be required.

#### SPCM 4360: Topics in Communication

A study of the application of communication in both professional and personal life. Such areas as teaching, business, listening, parliamentary procedure, and other studies more specialized than those currently offered in other courses may be included. May be repeated once for credit when content changes.

#### SPCM 4368, 4668: Field Experience in Communication

Provides the student with the opportunity to conduct field research in communication on a given topic which includes some travel. Classroom experiences employing lecture and seminar methods supplement the field experience. Prerequisite: Consent of instructor.

#### SPCM 4370 & 4371: Undergraduate Internship Program

An 8- to 16-week program offering a learning experience in an off-campus environment. CR/NC option. Prerequisite: 12 semester credit hours of advanced speech communication and consent of chair.

#### SPCM 4385: Archer Program Government Internship

This course consists of an approved internship in a governmental or nongovernmental organization in Washington, D.C. Enrollment limited to Archer Center Fellows.

#### SPCM 4199-4699: Independent Study

Independent study in specific areas of speech not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. Prerequisite: Consent of department chair.

# Theatre (THTR)

#### THTR 1301: The Theatre: Plays in Performance [TCCN: DRAM 1310]

This course studies the theatre as an art form, examining its history and the play production process with emphasis on those elements retained in modern theatre practice. The reading of varied styles of dramatic literature and attendance at theatre productions is required.

#### THTR 1320: Rehearsal, Crew, Production

Practicum and laboratory experience in theatre performance and production. Open to all students; required of theatre majors and minors. The course is offered in conjunction with departmental productions, and a journal report of the student's participation is required. Course may be repeated one time for credit as content varies with changing theatre productions each semester.

#### THTR 1351: Acting: An Introduction [TCCN: DRAM 1351]

Scene study and the history of acting including basic techniques of performance for experience in preparation and presentation. Intended for the non-major with an interest in obtaining acting skills and open to all students.

#### THTR 1352: Acting: Basic Skills [TCCN: 1352]

Scene study and practical experience in the theories and techniques of creating a character for the stage. Investigation of the acting methods of Stanislavski, Method acting, Hagen exercises and Improvisation.

#### THTR 1356: The Cinema: Films and Performers

The cinema arts, history and cinema production process with emphasis on those elements retained in contemporary film practice. Screening of films in the classroom and attendance at film presentations is required.

#### THTR 2315: Design for the Theatre

Practical exercises in the methods, materials, and design elements for utilization in theatre design disciplines. Prerequisite to advanced stage, costume or lighting design courses.

#### THTR 2336: Voice and Diction

Vocal development for presentation and performance including the history of vocal studies and knowledge of the vocal anatomy. Intended for all students with an interest in obtaining vocal skills and minimizing regional speech patterns.

#### THTR 2340: Audition and Portfolio

Development of audition and portfolio techniques. A public performance recital of audition selections and portfolios developed during the course is required. Open to all students, required of theatre majors in performance and design. May be repeated three times for credit.

#### THTR 2366: Development of the Cinema: Early Years to WW I

Study of the development and growth of the motion pictures from 1895 to the end of the Second World War. Viewing of representative films and written reaction papers are required.

#### THTR 2367: Development of the Cinema: WWII to the Present

Study of the development and growth of the motion pictures from the post World War II year of 1945 to the present. Viewing of representative films and written reaction papers are required.

#### THTR 3320: Children's Theatre

Experiences in various types of dramatic performances especially for children.

#### THTR 3329: Theatre History: Aeschylus to Shakespeare

A study of the development of theatre and dramatic literature from the Greeks to the Elizabethans.

#### THTR 3330: Theatre History: Moliere to the Present

A study of the development of theatre and dramatic literature from the Elizabethans to the present.

#### THTR 3340: Acting: Avocational

Scene study including basic techniques of performance with experience in preparation and presentation. Intended for the non-major with an interest in avocational acting and open to all students.

#### THTR 3350: Acting: Applied Techniques

Scene study and practical experience in the theories and techniques of creating a character for the stage. Investigation of the acting methods of Stanislavski, Method acting, Hagen exercises and Improvisation. **Prerequisite:** THTR 3340, and equivalent course or consent of instructor.

#### THTR 3351: Theatre Activities

A laboratory experience in play production in which each student will be involved in activities such as: acting, dancing, directing, lighting, set design and construction, make-up, costuming, and theatre management. Course may be repeated once for credit when course content changes.

#### THTR 4321: Creative Dramatics

Study and experience in principles of creative leadership with children and in the methods of teaching improvised drama, story dramatization and rhythmic movement.

#### THTR 4329: Topics in Drama

A study of selected drama topics with emphasis on current ideas and literature. May be repeated once for credit when content changes.

#### THTR 4356: Film History

Study of the development and growth of the motion pictures from 1895 to the present. Film viewing will be required.

#### THTR 4360: Directing the Theatre I

Study and practice in the techniques of play directing, including play selection, casting, staging and polishing.

#### THTR 4361: Directing the Theatre II

A continuation of THTR 4360 with the added experience of directing and producing a play for an audience. **Prerequisite:** THTR 4360.

#### THTR 4365: Theory and Practice of Playwriting

A lecture-laboratory course in the elements of playwriting. Exercises in writing exposition, traditional scene structure, rising action, crisis, falling action, resolution and denouncement. Development of narrative line, characterization and dialogue, with practice in writing an original dramatic text. May be repeated once for undergraduate credit with consent of advisor and the director of theatre.

#### THTR 4199-4699: Independent Study

Independent study in specific areas of theatre not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of department chair.

## University-Wide (UNIV)

#### UNIV 1300: Freshman Seminar

Introduction to scholarly thinking, writing and ways of thinking through theme-based interdisciplinary topics. Students will understand the complexity and multidimensional nature of contemporary issues; appreciate the importance of critical questions and writing; and be engaged as scholars.

#### UNIV 4368: Interdisciplinary Travel Study

An interdisciplinary course designed to provide undergraduate students travelstudy to complement regular class instruction. Course may be repeated for a total of 6 hours when course content and travel location change.

# COLLEGE OF BUSINESS AND TECHNOLOGY

#### Dr. Harold Doty, Dean

#### Statement of Mission and Purpose

The primary mission of the College of Business and Technology (CBT) is to support The University of Texas at Tyler by providing high quality instruction to students from East Texas and the surrounding regions and to contribute to the production of basic, applied and pedagogical knowledge relevant to the disciplines represented in the college. The careful balance between scholarly activities and teaching activities empowers our faculty to pursue personal professional growth while, at the same time, providing cutting edge educational experiences for our students. The mission of the College of Business and Technology is founded on developing and promoting the following five core values:

Professional Proficiency

Technological Competence

Global Awareness

Social Responsibility

Ethical Courage

Consistent with the demographic base and educational needs of our region, we recognize that undergraduate students, both traditional and more mature learners who are employed full time, are the largest segment of our market. Thus, a majority of our resources must remain focused on undergraduate education. However, our graduate programs are becoming increasingly important to the university and the region. Our master's programs are aimed primarily at students who intend to remain employed on a full-time basis for the duration of the program and are designed to promote professional success and career mobility. Our doctoral program is intended primarily as a research-based program designed to create scholars capable of making independent contributions to the profession and serving in leadership positions in higher education, primary and secondary education, and other government and industry roles.

The College of Business and Technology is authorized to award the following degrees:

Bachelor of Business Administration

Master of Business Administration

Bachelor of Science in Human Resource Development

Bachelor of Science in Industrial Technology

Bachelor of Applied Arts and Sciences

Bachelor of Science in Distribution and Logistics

Master of Science in Human Resource Development

Master of Science in Industrial Management

Master of Science in Distribution and Logistics

Ph.D. in Human Resource Development

The Bachelor of Business Administration and the Master of Business Administration are fully accredited by AACSB International - The Association to Advance Collegiate Schools of Business, the national accrediting organization for business and management programs. Accreditation means that the Business Administration programs meet or exceed high quality and continuous improvement standards for achieving its mission in such areas as curriculum, faculty, intellectual climate, admissions criteria, graduation requirements, library, technological and fiscal resources.

The Bachelor of Science in Human Resource Development, the Bachelor of Science in Industrial Technology, and the Bachelor of Applied Arts and Sciences degrees are accredited by the Association of Technology, Management, and Applied Engineering (ATMAE). ATMAE accreditation ensures that the institution has met a series of standards to provide industry, business, education, and government with highly competent employees and assures the graduate of an ATMAE-accredited program that they are receiving a marketable degree through relevant curricula.

# Bachelor of Business Administration: Total 120 semester credit hours

#### Objectives

The Bachelor of Business Administration (BBA) prepares students for positions as executives, managers, and specialists in businesses and other organizations. Such an education provides an opportunity to:

- 1. understand contemporary business culture;
- 2. appreciate the historical evolution of business, and develop an awareness of the social and economic influences in the global community;
- 3. encourage social responsibility and community service;
- 4. understand major functional areas of business, their relationships, and develop some degree of specialization and application; and
- 5. prepare for graduate study.

Students are encouraged to establish a firm base of humanities, arts, and sciences; to develop analytical capability; to investigate major functional areas of business; and to recognize that the role of leadership in the modern business system is vitally important for community progress and economic development.

# Admission to the Bachelor of Business Administration Programs

Transfer and freshmen students who are admitted to UT Tyler and interested in pursuing a BBA degree will initially be admitted as Pre-Business students (PBUS). Prior to admission to the BBA program students must request to be formally admitted and must meet with a business advisor to complete an initial career guide and degree plan. Students will be officially admitted to the Bachelor of Business Administration program only after they have satisfactorily completed their Core Curriculum and the Pre-Business Core requirements. Students must maintain an overall grade point average of 2.0 and receive a "C" or higher in each of the Pre-Business Core classes listed below to be admitted to the BBA program.

Accounting Principles

0 1	
Financial Accounting	3
Managerial Accounting	3
Computer Literacy*	3
Economic Principles	
Microeconomics	3
Macroeconomics	3
Mathematics**	3
Speech***	3
Statistics	3

\* Computer applications adapted to the solution of business problems (equivalent to TECH 2323).

\*\*Content to be at the level of calculus or above and include exponents and radicals, linear systems, matrices, linear algebra, exponential functions, logarithmic functions, probability, differential and integral calculus.

\*\*\*Public speaking with an emphasis on the preparation and presentation of professional speeches, using computer technology when appropriate.

## Transfer of Credit

Only grades of "C" and above may apply towards degree requirements.

### General Baccalaureate Degree Requirements

The College of Business and Technology offers a Bachelor of Business Administration (BBA) degree with majors in accounting, finance, management, and marketing, which requires:

- A. Admission to the BBA program.
- B. A minimum of 120 semester credit hours for the Bachelor of Business Administration degree.
- C. At least 50 percent of the upper-division business courses must be taken at UT Tyler.
- D. In no event may a student register for the graduation semester until the completion of all prerequisites.
- E. A minimum grade point average of 2.0 in all upper-division work undertaken and a minimum grade of "C" in each course in the major.
- F. A common business core of 25 hours.
  - The common business core courses are as follows, with variations by major, as noted with a minimum grade of "C":
  - FINA 3311: Principles of Finance

BLAW 3301: Business Law and Social Responsibility

MANA 3370: Business Writing and Oral Presentations

MANA 3170: How to Get a Job

MANA 3305: Operations Management

MANA 3311: Managing People in Organizations

MARK 3311: Principles of Marketing

- MANA 3330: Management Information Systems [Accounting majors must complete ACCT 4391: Accounting Information Systems rather than MANA 3330]
- MANA 4395: Strategic Management [must be taken after above courses in the common business core are completed]
- G. Eighteen upper-division hours in the major. At least four courses in the major must be completed at UT Tyler
- H. Fifteen additional upper-division hours, at least nine of which must be taken in the College of Business and Technology.

### Freshman Admission

Freshman should designate the Bachelor of Business Administration (BBA) as the intended degree. Prior to formal admission to the BBA program, these students will be classified as Pre-Business students (PBUS). The majors for the BBA are:

Accounting Finance Management Marketing

During the freshman and sophomore years each student will complete the core curriculum and the Pre-Business courses. Check with your advisor for courses that currently meet the core curriculum requirements. The courses listed below represent an acceptable plan

Core Curriculum	UT Tyler Course Number	Semester Hours
English Composition	ENGL 1301, 1302	6
Mathematics	MATH 1325*, 1342*	6
Laboratory Science	BIOL, CHEM, or PHYS	8
World or European Literature	ENGL 2322 or 2323	3
Humanities	SPCM 1315, PHIL,	3
	ENGL, or HIST	
Visual/Performing Arts	MUSI, THTR, ART	3
U.S. History	HIST 1301, 1302	6
Political Science	POLS 2305, 2306	6
Social/Behavioral Science	ECON 2301* or 2302*	3
TOTAL		44 hrs

#### **Pre-Business** Core

Accounting	ACCT 2301, 2302	6
Economics	ECON 2301**, 2302**	6
Computer Applications	TECH 2323	3
Speech	SPCM 1311, 1315**	3
Mathematics	MATH 1325**	3
Statistics	MATH 1342** or equiv.	3
TOTAL		24 hrs

\*\*Counts in Core Curriculum

Note: Some courses required for the Pre-Business can meet the core curriculum requirements.

## **General Studies**

Recommended emphasis in Business Administration for General Studies

students:		
ECON 1301	Introduction to Economics	3
or ECON 2301	Principles of Economics I	
or ECON 2302	Principles of Economics II	
ACCT 2301	Principles of Financial Acctg	3
ACCT 2302	Principles of Managerial Acctg	3
MANA 3311:	Managing People in Organizations	3
MARK 3311:	Principles of Marketing	3
FINA 3311:	Principles of Finance	3
Business Electives appr	oved by advisor	9
TOTAL		27

### Minor in Business Administration

A minor in Business Administration is available to students who are not pursuing a BBA. The student must complete up to nine specified lowerdivision semester hours and 18 upper-division semester hours from the College of Business and Technology as outlined below and must meet any prerequisites listed:

ECON 1301, 2301 or 2302	3
ACCT 2301 and 2302 or ACCT 3300	6
MANA 3311: Managing People in Organizations	3
MARK 3311: Principles of Marketing	3
FINA 3315: Personal Finance	3
MANA 3305: Operations Management	3
Other upper-division courses selected from the curriculum of	6
the College of Business and Technology.	
Total Hrs. for Minor	27

### Accounting

#### Bachelor of Business Administration in Accounting Total Semester Credit Hours = 120

Professional opportunities in the field of accounting include professional practice as a Certified Public Accountant, corporate accountant, controller, and government sector fiscal officer. The accounting career path often leads to responsible positions in organizations such as Vice President of Finance or President. Accounting is also excellent training for graduate business degrees (e.g. the MBA) and for law school. The undergraduate degree in accounting requirements necessary to sit for the Certified Public Accountant (CPA) exam. At the current time, however, the State of Texas requires individuals to complete 150 semester credit hours of higher education prior to taking the CPA exam. Thus, students will require additional course work after graduating with a BBA in Accounting before they are qualified to sit for the CPA exam.

\*Counts also for Pre-Business Core.

#### Objectives

Educational outcomes for students who complete the accounting major include the following:

- A. Complete the accounting courses necessary to sit for the CPA exam.
- B. Comprehend the policy, environmental, regulatory, and compliance issues of accounting.
- C. Understand and exercise the ethical and professional responsibilities of an accountant.
- D. Understand the content, concepts, structure, and use of internal and external reporting for organizations.
- E. Analyze, anticipate, and meet the information needs of decision makers.
- F. Understand different costing systems and their application to both manufacturing and service organizations.
- G. Comprehend and develop systems to identify, gather, measure, summarize, and analyze financial and non financial data in organizations.
- H. Understand and apply the concepts, methods, and processes of accounting and administrative control.
- I. Understand the nature of attest services.
- J. Understand and apply the principles of taxation to financial and managerial decisions.

## Suggested Four-Year Curriculum for Accounting CPA Track

#### Freshman Year

First Semester	Credit Hours
ENGL 1301: English Composition I	3
HIST 1301: U.S. History I	3
TECH 2323: Intro. to Computer Applications	3
MATH 1324: Math for Bus. and Econ. I	3
BIOL, PHYS, or CHEM*	4
Totals Hours	16
Second Semester	Credit Hours
ENGL 1302: English Composition II	3
HIST 1302: U. Š. History ÎI	3
SPCM 1315: Fundamentals of Speech	3
MATH 1325: Math for Bus. and Econ. II	3
BIOL, PHYS, or CHEM*	4
Totals Hours	16
Sophomore Year	

#### Sophomore Year

First Semester POLS 2305: U.S. Government ECON 2301: Macroeconomics ENGL 2322: World Literature MATH 1342: Statistics ACCT 2301: Princ. of Financial Acct. Total Hours	Credit Hours 3 3 3 3 3 3 15
Second Semester	Credit Hours
POLS 2306: Texas Government	3
ECON 2302: Microeconomics	3
Fine and Performing Arts	3
ACCT 2302: Princ. of Managerial Acct.	3
Humanities	3
Total Hours	15

#### Junior Year

First Semester	Credit Hours
ACCT 3311: Interm. Accounting I	3
ACCT 3325: Income Tax I	3
MANA 3370: Writing and Oral Presentations	3
MARK 3311: Principles of Marketing	3
BLAW 3301: Business Law and Social Resp.	3
Total Hours	15

Second Semester	Credit Hours
ACCT 3312: Interm. Accounting II	3
ACCT 3315: Cost Accounting	3
FINA 3311: Principles of Finance	3
MANA 3311: Managing People in Organizations	3
ACCT 3326: Income Tax II	3
MANA 3170: How to Get a Job	1
Total Hours	16
Total Hours	10
Senior Year	
First Semester	Credit Hours
ACCT 4391: Acct. Information Systems	3
BLAW 4340: Ethics	3
MANA 3305: Operations Management	3
ACCT 4330: Governmental and Not-for-Profit	3
Acctng	-
ACCT 4375: Intn'l Accounting and Finance	3
Total Hours	15

Total Hours	15
Second Semester	Credit Hours
ACCT 4380: Auditing	3
ACCT 4398: Accounting Analysis and Reporting	3
MANA 4395: Strategic Management	3
Upper Division CBT Elective	3
Total Hours	12

Note: Total hours must equal at least 120

#### Accounting Curriculum for CPA

A student who is planning to sit for the Certified Public Accountant (CPA) exam must have 30 hours of accounting excluding the accounting principles classes. Therefore, students preparing for the exam should take accounting classes for their upper division business electives. The above example assumes students will pursue the CPT certification.

#### Major in Accounting

The 18 hours must include ACCT 3311, ACCT 3312, ACCT 3315, ACCT 3325, ACCT 4380, and ACCT 4398.

Students who select to major in accounting, but do not follow the Certified Public Accountant track must complete additional accounting coursework prior to professional certification. Additionally, students who wish to sit for the Certified Public Accountant Examination must have completed 150 semester hours of higher education credits. A student may satisfy this requirement by (1) enrolling in the Master of Business Administration program; or by (2) enrolling in the BBA-MBA program; or (3) enrolling in the Accounting Certificate program. All accounting students should discuss these options with their advisor early in their accounting studies.

#### Finance

#### Bachelor of Business Administration in Finance Total Semester Credit Hours = 120

Professional opportunities in the field of finance can lead to careers in financial services such as banking officers, investment portfolio managers, corporate treasurers, and financial planners. Finance professionals are in high demand by corporations, nonprofit organizations and government agencies at all levels. The corporate finance career path can lead to very responsible positions, including vice president for finance or president of the firm. A finance major is excellent preparation for graduate school in business (e.g. MBA) and law school.

#### Objectives

Students completing the finance major should be able to:

- A. Understand the organizational environment and related agency issues within which financial managers operate.
- B. Analyze financial statement data for an enterprise to assess liquidity, asset utilization, debt management, profitability, and rewards of ownership.

- C. Estimate fund requirements for an enterprise.
- D. Recognize the structure and functioning of financial markets.
- E. Differentiate between the risks, costs, and availability of various methods used to acquire short-term and long-term funds.
- F. Understand the critical variables determining the cost of capital.
- G. Measure the risk and return associated with various asset alternatives, and choose between competing investment options.
- H. Incorporate quantitative decision skills and the use of the computer in solving financial problems.
- I. Recognize major evolving issues in finance.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester ENGL 1301: English Composition I HIST 1301: U.S. History I MATH 1324: Math for Bus. and Econ. I BIOL, PHYS, or CHEM* TECH 2323: Introduction to Computer Applications	Credit Hours 3 3 4 3
Total Hours	16
Second Semester ENGL 1302: English Composition II HIST 1302: U. S. History II SPCM 1315: Fundamentals of Speech MATH 1325: Math for Bus. and Econ. II BIOL, PHYS, or CHEM* Total Hours	Credit Hours 3 3 3 3 4 16
Sophomore Year	
First Semester POLS 2305: U.S. Government ECON 2301: Macroeconomics ACCT 2301: Princ. of Financial Acct. MATH 1342: Statistics ENGL 2322: World Literature Total Hours	Credit Hours 3 3 3 3 3 15
	0 I. I.

Second Semester	Credit Hours
POLS 2306: Texas Government	3
ECON 2302: Principles of Economics II	3
Fine and Performing Arts	3
ACCT 2302: Princ. of Managerial Acct.	3
Humanities	3
Total Hours	15

#### Junior Year

First Semester FINA 3311: Principles of Finance MANA 3370: Writing and Oral Communications MANA 3330: Management Info. Systems MANA 3311: Managing People in Organizations Upper-division elective Total Hours	Credit Hours 3 3 3 3 3 3 15
Second Semester FINA 4340: Managerial Finance MANA 3305: Operations Management MARK 3311: Principles of Marketing FINA 3330: Investments MANA 3170: How to Get a Job Upper-division CBT Elective Total Hours	Credit Hours 3 3 3 1 3 1 3 16

#### Senior Year

First Semester	Credit Hours
Directed Elective	3
Upper-division Elective	3
FÎÑA 4330: Security Analysis and Profit Mgt.	3
FINA 4310: Mgt. of Financial Institutions	3

BLAW 3301: Business Law Total Hours	3 15
Second Semester	Credit Hours
MANA 4395: Strategic Management	3
FINA 4350: International Finance	3
Upper-division CBT electives	6
Total Hours	12
N. C. T. Allow and A. L. Market 120	

Note: Total hours must equal at least 120

#### Major in Finance

The following must be included in the 18 hours: FINA 3330, FINA 4310, FINA 4330, FINA 4340, 18 hours FINA 4350 and one of the following: ACCT 3311, MARK 4350, or FINA 4345

### Management

#### Bachelor of Business Administration in Management Total Semester Credit Hours = 120

The Management program prepares students for positions as managers and future executives in business and other organizations. Professional opportunities in management often begin as a "management trainee" in large companies or as an assistant manager in other businesses. Persons with careers in management are found in entrepreneurial, private, public, and not-for-profit organizations. Typical career paths lead students to become upper-level corporate executives, corporate presidents, CEOs and successful entrepreneurs.

#### Objectives

Students completing the management major should be able to:

- A. Understand the complexity of managing human dynamics in the organizational setting.
- B. Recognize major managerial challenges such as the globalization of business, managing a cultural and ethnically diverse workplace, increasing interdependence among organizational units, intensifying competitive dynamics, and the escalating ethical responsibilities of managers.
- C. Understand the organizational and environmental context in which human resource managers function.
- D. Understand the organizational, labor, and legal environments in which managers function.
- E. Incorporate quantitative decision making into solutions of business problems.
- F. Understand factors that influence individual, group, and corporate behavior and use this knowledge to improve individual and firm performance.
- G. Develop managerial skills in activities such as: teamwork, motivation, decision making, negotiation, conflict resolution, leadership, and strategic management.
- H. Understand how strategic decisions are influenced by and also help to create competitive dynamics within and between industries.
- I. Recognize and assess the impact of environmental factors in decision making, as well as develop conceptual skills.
- J. Improve both written and oral communication skills.
- K. Develop competency in the use of enterprise-wide and discipline specific applications to solve business problems and assist in strategic decision making.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester	Credit Hours
ENGL 1301: English Composition I	3
HIST 1301: U.S. History I	3

#### COLLEGE OF BUSINESS AND TECHNOLOGY

TECH 2323: Intro. to Computer Applications	3
MATH 1324: Math for Bus. and Econ. I	3
BIOL, PHYS, or CHEM *	4
Total Hours	16
Second Semester	Credit Hours
ENGL 1302: English Composition II	3
HIST 1302: U. S. History II	3
SPCM 1315: Fundamentals of Speech	3
MATH 1325: Math for Bus. and Econ. II	3
BIOL, PHYS, or CHEM*	4
Total Hours	16
Sophomore Year	
First Semester	Credit Hours
POLS 2305: U.S. Government	3
ECON 2301: Macroeconomics	3
ACCT 2301: Princ. of Financial Acct.	3
ENGL 2322: World Literature	3
MATH 1342: Statistics	3
Total Hours	15
Second Semester	Credit Hours
POLS 2306: Texas Government	3
ECON 2302: Microeconomics	3
ACCT 2302: Princ. of Managerial Acct.	3
Fine and Performing Arts	3
Humanities	3
Total Hours	15
Junior Year	
First Semester	Credit Hours
BLAW 3301: Bus. Law and Soc. Resp.	3
MANA 3370: Business Writing and Oral Present.	3
MANA 3311: Managing People in Organizations	3
MANA 3330: Mgmt. Inform. Systems	3
Management elective	3
Total Hours	15
Second Semester	Credit Hours
MANA 3305: Operations Management	3
MARK 3311: Principles of Marketing	3
FINA 3311: Principles of Finance	3
Upper-division business electives	3
MANA 3320: Human Resource Management	3
MANA 3170: How to Get a Job	1
Total Hours	16
Senior Year	
First Semester MANA 4315: Managerial Decision Making MANA 4310: International Management Management elective Upper-division CBT electives Total Hours	Credit Hours 3 3 6 15
Second Semester MANA 4395: Strategic Management Upper-division CBT electives Upper-division electives Total Hours Note: Total hours must equal at least 120	Credit Hours 3 6 12

#### Major in Management

The following four (4) courses are required of all Management Majors: MANA 3315, MANA 3320, MANA 4310, MANA 4315

In addition, students are required to take a minimum of 15 semester credit hours of electives, 6 of which must be in Management (MANA), and 9 may be other upper-division electives selected from course offering in CBT. Students are encouraged to consider specializing in a specific management focus and take additional Management Electives as articulated below. Students who wish to focus on Human Resource Management should enroll in the following courses that count as Management and other upperdivision CBT electives:

MANA 4325, MANA 4335, TECH 4320 and TECH 4330

Students who wish to focus on E-Commerce should enroll in the following courses that count as Management and other upper-division electives:

MANA 4345, MANA 4350, MARK 3325 and MARK 3350

Students who wish to focus on Entrepreneurship should enroll in the following courses that count as Management and other upper- division electives:

MANA 3325, MANA 4320, MANA 4345, and MARK 3325 or MARK 4300

#### Minor in Management

A minor in Management is available to students who are not pursuing a BBA. The student must complete up to nine semester hours of lowerdivision coursework and 18 upper-division semester hours from the Department of Management and Marketing as outlined below and must meet any prerequisites listed:

three hours from: ECON 1301, ECON 2301, or ECON 2302

three to six hours from: ACCT 2301 and ACCT 2302 or ACCT 3300 Upper Division (18 hours)

FINA 3315

12 hours from: MANA 3311, MANA 3315, MANA 3320, MANA 4310 MANA Elective

#### Minor in Entrepreneurship

A minor in Entrepreneurship is available to students who are not pursuing a BBA. The student must complete up to nine semester hours of lower-division coursework and 18 upper-division semester hours from the Department of Management and Marketing as outlined below and must meet any prerequisites listed:

Lower Division (6-9 hours): three hours from: ECON 1301, ECON 2301, or ECON 2302 three to six hours from: ACCT 2301 and ACCT 2302 or ACCT 3300 Upper Division (18 hours) FINA 3315 MANA 3311 or MANA 3315, MANA 3325, MANA 4320, MARK 3311, and MARK 3325 or MARK 3350

#### Marketing

#### Bachelor of Business in Marketing

Total Semester Credit Hours--120

Professional opportunities in marketing are marketing specialists and directors, sales professionals, advertising specialists, advertising directors and research professionals. For students who want a general perspective of marketing, the curriculum provides a broad range of marketing subjects. The marketing curriculum, whether approached from a general or specialized perspective provides the conceptual, quantitative, and analytic skills that are necessary for students to function in a dynamic business environment.

#### Objectives

The following are specific educational objectives for Marketing majors:

- A. Acquire a practical understanding of the marketing planning process and be able to develop a complete marketing plan.
- B. Learn to develop and execute a formal marketing presentation, including problem definition, formulation of alternatives, and the selection and defense of specific action recommendations.
- C. Become familiar with fundamental marketing concepts and learn to apply analytical skills and innovative thinking in a variety of marketing contexts, including commercial, industrial, service, and non-profit sectors.

- D. Acquire strategic insights useful in the practical segmentation of markets and the effective manipulation of the marketing mix.
- E. Acquire a detailed understanding of the customs, traditions, and decision making processes that direct the consumption behavior of the modern American consumer.
- F. Learn to identify and differentiate the effects of cultural and subcultural factors on consumption behavior and the implications for marketing strategy.
- G. Become familiar with quantitative and qualitative techniques to gather and analyze information in order to help marketing managers reduce uncertainty in managerial decision-making.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester ENGL 1301: English Composition I HIST 1301: U.S. History I TECH 2323: Intro. to Computer Applications MATH 1324: Math for Bus. and Econ. I BIOL, PHYS, or CHEM* Total Hours	Credit Hours 3 3 3 3 4 16
Second Semester ENGL 1302: English Composition II HIST 1302: U. S. History II SPCM 1315: Fundamentals of Speech MATH 1325: Math for Bus. and Econ. II BIOL, PHYS, or CHEM* Total Hours	Credit Hours 3 3 3 3 4 16
Sophomore Year	
First Semester POLS 2305: U.S. Government ECON 2301: Macroeconomics ENGL 2322: World Literature ACCT 2301: Princ. of Financial Acct. MATH 1342: Statistics Total Hours	Credit Hours 3 3 3 3 3 3 15
Second Semester POLS 2306: Texas Government ECON 2302: Microeconomics MUSI, THTR, or Fine Arts ACCT 2302: Princ. of Managerial Acct. PHIL, ENGL, or Humanities	Credit Hours 3 3 3 3 3 3

Total Hours

#### Junior Year

First Semester	Credit Hours
BLAW: 3301: Bus. Law and Soc. Resp.	3
MANA 3370: Business Writing and Oral Present.	3
MANA 3311: Managing People in Organizations	3
MANA 3330: Mgmt. Info. Systems	3
MARK 3311: Principles of Marketing	3
Total Semester Hours:	15
Second Semester	Credit Hours
MANA 3305: Operations Management	3
MARK 3325: Retailing	3
FINA 3311: Principles of Finance	3
MARK 3350: Consumer Behavior	3
Upper-level CBT elective	3
MÂNA 3170: How to Get a Job	1
Total Semester Hours:	16

#### Senior Year

First Semester	Credit Hours
MARK 4300: Services Marketing	3
Upper-division CBT electives	3
MARK 4380: Marketing Research	3
Upper-division electives	6
Total Semester Hours	15

Second Semester	Credit Hours
MANA 4395: Strategic Management	3
MARK 4365: Sales Management	3
MARK 4360: International Marketing	3
Upper-division electives	3
Total Semester Hours	12
Note: Total hours must equal at least 120	

#### Major in Marketing

The following must be included in the 18 hours:	
MARK 3325, MĂRK 3350, MARK 4300, MARK	18 hours
4365, MARK 4380, and MARK 4360	

#### Minor in Marketing

A minor in Marketing is available to students who are not pursuing a BBA. The student must complete up to nine (9) lower-division semester hours and eighteen (18) upper-division semester hours from the Department of Management and Marketing courses as outlined below, and must meet any prerequisites listed.

Lower Division ECON 1301, ECON 2301, or ECON 2302 MATH 1342 or equivalent ACCT 2301 and ACCT 2302, or ACCT 3300 Upper Division FINA 3315 MARK 3311, MARK 3325, MARK 3350, MARK 4380 MARK Elective

## Department of Human Resource Development and Technology

The Department of Human Resource Development and Technology prepares professionals for careers in business, industry, education, and government by offering the following degrees: Bachelor of Science in Human Resource Development Bachelor of Science in Industrial Technology

Bachelor of Science in Industrial Technology Bachelor of Science in Distribution and Logistics Bachelor of Applied Arts and Sciences Master of Science in Human Resource Development Master of Science in Industrial Management Master of Science in Distribution and Logistics Ph.D. in Human Resource Development

The baccalaureate degree programs awarded by the faculty of the Department of Human Resource Development and Technology are accredited by The Association of Technology, Management, and Applied Engineering (ATMAE). ATMAE accreditation ensures that the Institution has met a series of standards to provide industry, business, education, and government with highly competent employees and assures the graduate of a ATMAE accredited program that they are receiving a marketable degree through relevant curricula.

### **Core Competencies**

The University of Texas at Tyler has determined that to be an educated person, a student needs certain intellectual skills in order to participate effectively in society and in the workplace. The faculty of the Department of Human Resource Development and Technology has identified seven skill sets, or core competencies, that fulfill the university's definition of an educated person and simultaneously contribute to the core values of the College of Business and Technology. These core competencies include:

- A. Computer software, database, and internet search skills,
- B. Oral and written communication skills
- C. Team-based skills including leadership and conflict resolution abilities,
- D. Critical thinking,
- E. Ethical Issues in decision making and behavior,

15

F. Personal accountability for achievemen	F.	Personal	accountability	for	achievement
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G. Competence in basic technology principles.

## Bachelor of Science in Human Resource Development Requirements

Total Semester Credit Hours = 120

#### Objectives

Human Resource Development (HRD) is a process for developing and unleashing human expertise through organization development and personnel training and development for the purpose of improving performance. Careers in this field are available in business, nonprofit, educational, and governmental settings. The HRD program provides students the opportunity to combine study and related experiences to develop, apply, analyze, synthesize, and evaluate knowledge of the purposes, practices, issues, and problems of work and community education. Students also have the opportunity to learn how to design, deliver, and evaluate effective training and development programs.

#### Requirements

Requirements for the Human Resource Development degree include: A. A minimum of 120 semester credit hours for the Bachelor of Science degree

B. University Core Curriculum (44 hrs.)

C. Departmental Core Curriculum (16 hrs)

TECH 4301: Supervision

TECH 4310: Total Quality Management

TECH 4320: Job Analysis

HRD 3333: Human Relations

or MANA 3311: Managing People in Organizations

TECH 4372: Capstone Experience

TECH 4173: Electronic Portfolio

D. A minimum of 39 semester hours in the major.

E. A minimum of six hours of business courses.

F. Approved upper and lower-division electives (15 hrs.)

G. A minimum grade-point average of 2.0 in upper-division courses in HRD and Technology. No grade below a "C" in the major will be accepted toward the degree.

H. A minimum or 45 hours must be completed at the upper-division.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester ENGL 1301: Grammar and Composition I Social and Behavioral Science requirement Lab Science TECH 1301: Technology and Society POLS 2305: Intro. American Gov. Total Hours:	Credit Hours 3 4 3 3 16
Second Semester ENGL 1302: Grammar and Composition II HIST 1301: United States History I Humanities MATH 1314: College Algebra Elective Total Hours	Credit Hours 3 3 3 3 3 3 15
Sophomore Year	

First Semester	Credit Hours
HIST 1302: United States History II	3
TECH 2330: Infor. Commun. and Technology	3
Lab Science	4
ACCT 2301: Principles of Financial Acctg.	3
Elective	3
Total Hours	16

Second Semester	Credit Hours
POLS 2306: Intro. Texas Politics	3
MATH 1342: Statistics	3
ENGL 2323: English Literature	3
TECH 2323: Intro to Computer Apps.	3
MANA1300: Intro to Business	3
Total Hours:	15
Junior Year	
First Semester	Credit Hours
Visual & Perform. Arts elective	3
TECH 4310: Total Quality Management	3
HRD 3306: Teambuilding	3
HRD 3301: Intro to HRD	3
Elective	3
Total Hours:	15
Second Semester	Credit Hours
TECH 4320: Job Analysis Techniques	3
TECH 4301: Supervision	3
HRD 3312: Training and Development	3
BLAW 4340: Business and Professional Ethics	3
Elective	3
Total Hours:	15
Senior Year	
First Semester	Credit Hours
HRD 3333: Human Relations	3
HRD 3342: Career Development	3
HRD 4321: Intro. to Distance Learning	3
MANA 3320: Human Resource Management	3
Upper Level Elective	3
Total Hours:	15
Second Semester	Credit Hours
HRD 4331: Workforce Development	3
HRD 4323: Developing Web-based Instruction	3

	0
HRD 4323: Developing Web-based Instruction	3
TECH 4173: Electronic Portfolio	1
TECH 4372:Capstone Experience	3
Upper-division elective	3
Total Hours:	13

### Minor in Human Resource Development

The student must complete 18 upper-division semester hours as follows: HRD 3301: Introduction to Human Resource Development HRD 3312: Training and Development HRD 3333: Human Relations TECH 4320: Job Analysis Techniques Two courses (6 semester hours) from the following: HRD 3342: Career Development HRD 4321: Introduction to E- Learning HRD 4323: Developing Web-Based Instruction TECH 4301: Supervision

#### Bachelor of Science in Industrial Technology Requirements Total Semester Credit Hours=120

Industrial Technology is a field of study designed to prepare technical and/or technical management-oriented professionals for gainful employment in business, industry, education, or government. Graduates in Industrial Technology will be involved with the application of theories and concepts found in science, mathematics, and the humanities. A strong emphasis is placed on communication and the application of computer and technical skills.

### General Degree Requirements

General Degree Requirements
A. University Core Curriculum (44 hrs.)
B. Departmental Core Curriculum (16 hrs.)
TECH 4301: Supervision
TECH 4310: Total Quality Management
TECH 4320: Job Analysis
HRD 3333: Human Relations
or MANA 3311: Managing People in Organizations
TECH 4372: Capstone Experience
TECH 4173: Electronic Portfolio
C. A minimum of 39 semester hours in the
major to include:
TECH 1320: Industrial Materials
TECH 1330: Fundamental of Electronics
TECH 2311: Mechanical & Fluid Sys.
TECH 2323: Intro to Computer Apps.
TECH 3311: Manufacturing Processes
TECH 3312: Facilities Operations &
Maintenance
TECH 3315: Visual Comm. Technology
TECH 3333: Polymer Processing
TECH 3344: Industrial Safety
TECH 3355: Supply Chain Management
TECH 4317: Computer-Integrated Mfg.
TECH 4323: Lean Production
TECH 4343: Adv. Mfg. Processes

D. A minimum of six (6) semester hours of Business courses. MANA 4305: Operations Management MARK 3311: Principles of Marketing

E. Approved upper and lower-division electives (15 hrs.)

F. A minimum grade-point average of 2.0 in upper-division courses in the major.

G. No grade below a "C" in the major will be accepted toward the degree.

H. A minimum of 45 semester hours must be completed at the upper level.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester ENGL 1301: Grammar and Composition I HIST 1301: United States History I Lab Science Visual and Performing Arts TECH 1301: Technology and Society Total Hours:	Credit Hours 3 4 3 3 16
Second Semester	Credit Hours
ENGL 1302: Grammar and Composition II	3
HIST 1302: United States History II	3
MATH 1314: College Algebra	3
TECH 1320: Industrial Materials	3
Elective	3
Total Hours:	15
Sophomore Year	
First Semester	Credit Hours
POLS 2305: Intro. American Gov.	3
Lab Science	4
TECH 1330: Fundamentals of Electronics	3
Social and Behavioral Science requirement	3
Elective	3

Total Hours:	16
Second Semester	Credit Hours
POLS 2306: Intro. Texas Politics	3
MATH 1342: Statistics	3
World/European Lit. Requirement	3

TECH 2311: Mechanical and Fluid Systems	3
Elective	3
Total Hours:	15
Junior Year	
First Semester	Credit Hours
Humanities requirement	3
TECH 3315: Visual Commun. Technology	3
MANA 4305: Operations Management	3
TECH 3311: Manufacturing Processes	3
TECH 3333: Polymer Processing	3
Total Hours:	15
Second Semester	Credit Hours
TECH 3355: Supply Chain Management	3
TECH 3344: Industrial Safety	3
MARK 3311: Principles of Marketing	3
TECH 3312: Facilities Operation & Maint.	3
Elective	3
Total Hours:	15
Senior Year	
First Semester	Credit Hours
HRD 3333: Human Relations	3
TECH 4301: Supervision	3
TECH 4310: Total Quality Management	3
TECH 4343: Advanced Manufacturing Process	3
Elective	3
Total Hours:	15
Second Semester TECH 4320: Job Analysis Techniques TECH 4323: Lean Production TECH 4317: Computer-Integrated Mfg. TECH 4372: Capstone Experience TECH 4173: Electronic Portfolio Total Hours:	Credit Hours 3 3 3 1 13

### Minor in Industrial Technology

The student must complete 18 hours from the following list of courses: TECH 1320: Industrial Materials TECH 1330: Fundamentals of Electronics

TECH 2311: Mech. and Fluid Systems TECH 3311: Manufacturing Processes TECH 3333: Polymer Processes TECH 4317: Computer Integrated Mfg. TECH 4323: Lean Production TECH 4343: Adv. Manufacturing. Processes

### Bachelor of Applied Arts and Sciences Objectives

The Bachelor of Applied Arts and Sciences (BAAS) is a transfer degree program only. The BAAS degree program prepares students for managerial careers in technical fields. This program offers a seamless transition from the associates of applied arts and sciences degree in technical fields earned from community colleges to a bachelor's degree.

The BAAS degree program prepares students for leadership roles in business and industry. Students will also conduct comprehensive analysis of individual and group behaviors in organizations, and learn to develop and deliver effective training programs.

### Bachelor of Applied Arts and Sciences Requirements

- A. Forty-four semester credit hours of General Education (core curriculum) requirements. (See Core curriculum requirements section of this catalog)
- B. A Major Field of Study, consisting of 21 upper-division semester hours in Human Resource Development, Technology, Management, Marketing, Accounting or Finance as approved by the student's advisor.

#### COLLEGE OF BUSINESS AND TECHNOLOGY

C. A total of 16 semester credit hours of departmental core courses in Human Resource Development and Technology, as follows:

TECH 4301:	Supervision
TECH 4310:	Total Quality Management
TECH 4320:	Job Analysis Techniques
HRD 3333:	Human Relations
or MANA 3311:	Managing People in Organizations
TECH 4372:	Capstone Experience
TECH 4372:	Capstone Experience
TECH 4173:	Electronic Portfolio

D. Additional electives to complete degree requirements of 120 semester credit hours.

1. Upper-level academic credit not to exceed 12 semester credit hours may be granted to individuals submitting evidence of relevant work experience in an area of technical specialization. This experience will be validated by a faculty committee and the Department Chair of Human Resource Development and Technology. Evidence of this experience must be submitted within six months of initial enrollment.

2. Students must complete a minimum of 24 semester credit hours of technical electives and 12 semester credit hours of management electives to meet ATMAE accreditation requirements.

# Bachelor of Applied Arts and Sciences (Technical Professions Option)

Total Semester Credit Hours = 120

Suggested Curriculum

#### Junior Year

First Semester TECH 4301: Supervision Major Field of Study Major Field of Study Major Field of Study Core curriculum requirement Total Hours	Credit Hours 3 3 3 3 3 3 15
Second Semester HRD 3333: Human Relations TECH 4320: Job Analysis Major Field of Study Major Field of Study Core curriculum requirement Total Hours	Credit Hours 3 3 3 3 3 3 15
Senior Year	
First Semester TECH 4310: Total Quality Management Major Field of Study Upper-division electives Core Curriculum requirements Total Hours	Credit Hours 3 3 3 3 12
Second Semester TECH 4372: Capstone Experience TECH 4173: Electronic Portfolio Upper division elective Core curriculum requirement Total Hours	Credit Hours 3 1 3 3 10

# BUSINESS AND TECHNOLOGY COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

## Accounting (ACCT)

## ACCT 2301: Principles of Financial Accounting [TCCN: ACCT 2301]

An introduction to the financial statements and their use in decision-making. Topics include the accounting cycle; concepts and principles used in recording equity, revenues and expenses, and internal controls.

## ACCT 2302: Principles of Managerial Accounting [TCCN: ACCT 2302]

Accounting concepts and methods used in managerial planning, control, and decision-making. Topics include budgetary planning, control and analysis, responsibility accounting; costing techniques; standard costs; cost-volume-profit relationships; and capital budgeting. **Prerequisite**: ACCT 2301.

#### ACCT 3300: Survey of Accounting

Basic topics in financial and managerial accounting. This course is designed for those non-business major students who have no accounting hours. Students with six hours credit in accounting or business majors will not receive credit for this course.

#### ACCT 3311: Intermediate Accounting I

Accounting theory and practice relating to problems of asset valuation and classification in accounts and statements. **Prerequisite:** ACCT 2302 or concurrent enrollment in ACCT 2302.

## ACCT 3312: Intermediate Accounting II

Accounting theory and practice relating to problems of valuation and classification of liabilities and stockholder's equity, statement of cash flows, financial statement analysis, and other topics. **Prerequisite**: ACCT 3311.

#### ACCT 3315: Cost Accounting

Accounting for manufacturing operations; emphasis on standard costing, process costing and relevant analysis for decision-making. **Prerequisites**: TECH 2323 or equivalent; ACCT 2301 and 2302.

#### ACCT 3325: Income Tax I

Statutes, regulations, administrative rulings, and court decisions relating to federal income taxes of individuals. **Prerequisite**: ACCT 2302 or concurrent enrollment in ACCT 2302.

#### ACCT 3326: Income Tax II

Statutes, regulations, administrative rulings and court decisions relating to federal income taxes of partnerships, corporations, estates, and trusts. **Prerequisite:** Completion or concurrent enrollment in ACCT 2302.

#### ACCT 4320: Advanced Accounting

Accounting problems in respect to multiple ownership; consolidated financial statements and partnership accounts; institutional, social and fiduciary accounting. **Prerequisite**: ACCT 3312.

#### ACCT 4330: Governmental and Not-for-Profit Accounting

Accounting for governments and not-for-profit organizations. Coverage includes budgets, revenues, expenditures, tax levies, appropriations, general funds, special funds, and financial reports. **Prerequisite**: ACCT 2302 or concurrent enrollment in ACCT 2302.

#### ACCT 4370: Special Topics in Accounting

Studies in accounting to include such topics as forensic accounting, advanced auditing, international accounting and advanced accounting information systems. A maximum of six semester hours may be applied to a degree. May be repeated once for credit when content changes. **Prerequisite:** CI.

#### ACCT 4375: International Accounting & Financial Reporting

Introduces and examines accounting issues unique to multinational enterprises and international business activity. Course includes International Financial Reporting Standards (IFRS); financial reporting outside the USA; International financial disclosure issues such as segmental social and environmental; accounting harmonization; ethics; taxation; foreign exchange; and cultural issues. **Prerequisite:** ACCT 3312.

#### ACCT 4380: Auditing

Auditing procedures, auditing standards and auditing reports. Responsibilities and ethical standards of independent public accounting firms. **Prerequisite**: ACCT 3312.

#### ACCT 4385: Accounting Theory

Evolution of financial accounting theory and practice; survey of contemporary accounting, with emphasis on latest developments and issues. **Prerequisite**: ACCT 3312.

#### ACCT 4391: Accounting Information Systems

Structure of financial data flow systems within an organization. Development of logic, flow and control concepts and reporting techniques of these systems. **Prerequisite:** TECH 2323 or equivalent and ACCT 3312.

#### ACCT 4395: Undergraduate Internship

An 8 to 16 week program providing for a learning experience in an off-campus environment. **CR/NC Option. Prerequisite**: Consent of academic advisor and 3.0 minimum GPA.

#### ACCT 4398: Accounting Analysis and Regulations

This capstone course assembles information from the accounting curriculum to prepare students for entry into the profession. The course integrates recognition, reporting, analysis, theory, and guidance codification as it pertains to comprehensive financial accounting information. Other topics pertaining to financial statement preparation and presentation are addressed. **Prerequisite:** Senior status and instructor approval.

#### ACCT 4199 - 4699: Independent Study

Independent study in special areas of accounting not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may apply toward an undergraduate degree. Independent study courses are available only to degree seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the department chair. The proposal and the final report become part of the student's permanent record. **Prerequisite**: Consent of academic advisor.

## Business Law (BLAW)

#### BLAW 3301: Business Law and Social Responsibility

Introduction to the legal environment of business, legal reasoning, and historical perspective. The influence on economic activity by regulatory agencies in their pursuit of public policy goals is stressed. An introduction to business and professional ethics is included.

#### BLAW 3306: Business Law

A study of contracts, Uniform Commercial Code, secured transactions, bankruptcy, property law, wills and trusts. There is an emphasis on the uniform CPA exam.

#### BLAW 4340: Business and Professional Ethics

A study of business and professional ethical concepts, processes, and problems related to organizational decision making. Topics and issues include ethical reasoning, integrity, objectivity, independence, social responsibility, and organizational relationships.

## Finance (FINA)

#### FINA 3311: Principles of Finance

The study of money and its management. Examines financial institutions and how they function within the economy; studies alternative investments for inclusion in a portfolio; explores the techniques used by financial managers in deciding how to acquire and invest funds. **Prerequisite:** ECON 2301 and ACCT 2301 or CI.

#### FINA 3315: Personal Finance

Develops proficiency in financial planning and management for the individual, sole proprietorship, and small partnership. This proficiency includes learning budgeting, cash flow management, and the proper use of credit, tax planning, risk management, investments, retirement, and estate planning. Not intended for finance majors. **Prerequisite:** ECON 1301, ECON 2301, or ECON 2302.

#### FINA 3321: Principles of Real Estate

Basic principles of real estate with emphasis on contracts of sale, deeds, abstracts, leases, options, liens, taxes, financing, and market conditions.

#### FINA 3330: Investments

A study of securities, the markets in which they are traded, and sources of financial information. The features and characteristics of a variety of financial instruments are analyzed, including money market instruments, stocks, bonds, real estate, tax shelters, international securities, options and futures contracts. **Prerequisite**: FINA 3311.

#### FINA 4310: Management of Financial Institutions

A study of the structure and functions of financial institutions; their sources and uses of funds; analysis of the nature and function of credit; the effects of financial institutions on macroeconomic analysis. **Prerequisite:** FINA 3311.

#### FINA 4330: Security Analysis and Portfolio Management

This course explores the principles of valuation and the application of alternative techniques in determining the worth of equity, fixed-income, and derivative securities. Examination of the process of setting suitable investment objectives and constructing multi-asset portfolios to meet the specific needs of individual and institutional investors. **Prerequisite**: FINA 3311.

#### FINA 4340: Managerial Finance

A study of the conceptual and analytical framework guiding the investment, financing and dividend decisions of the firm. **Prerequisite:** FINA 3311 and approval of instructor.

#### FINA 4345: Financial Services Operations

Focus on the products and processes in the financial system. The course examines creation and distribution of financial products and services and discusses the strategies, channels, and risk-controls employed in their delivery. **Prerequisite:** FINA 3311

#### FINA 4350: International Finance

Balance of international payments, exchange rate determination, export-import financing, currency arbitrage and international capital movements. This course is aimed at grounding the student in basic principles of international finance, which are becoming increasingly relevant to U.S. business and investment decisions. **Prerequisite:** FINA 3311.

#### FINA 4370: Special Topics in Finance

Areas of study in finance that reflect contemporary topics not covered by organized courses. May be repeated once for credit when the topics vary. **Prerequisite:** FINA 3311 or consent of academic advisor.

#### FINA 4380 Seminar in Contemporary Finance

This is a seminar which explores contemporary issues in finance by examining new developments in this rapidly evolving field of study. Students will explore contemporary issues in finance via research, readings, simulations, and hands on experiences. **Prerequisite:** FINA 3311.

#### FINA 4390: Case Studies in Finance

A case course designed to give the student experience in solving financial problems occurring in modern corporate enterprise. **Prerequisite:** 9 hours of coursework in Finance or CI.

#### FINA 4395: Undergraduate Internship

An 8 to 16 week program providing for a learning experience in an off-campus environment. **CR/NC option. Prerequisite:** Consent of academic advisor and 3.0 minimum GPA.

#### FINA 4199 - 4699: Independent Study

Independent study in specific areas of finance not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. Independent study courses are available only to degree-seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the Department chair. The proposal and the final report become part of the student's permanent record. **Prerequisite:** Consent of academic advisor.

## Human Resource Development (HRD)

#### HRD 3301: Introduction to HRD

An overview of human resource development to include training, organizational development, career development and performance management techniques.

#### HRD 3306: Team Building

This course provides an insight into the use of teams in business and industry. Topics include the purpose of teams and the team-building process, conflict resolution, talent management, and team-building activities. The course will also examine the basic structure of teams, why they are important, how they are developed, and how they are managed and evaluated.

#### HRD 3312: Training & Development

Overview of the process of planning, implementing and the evaluation of training and development in a variety of settings; includes conceptual tools needed to develop and design training.

#### HRD 3333: Human Relations

Study of establishing and maintaining effective working relationships among teachers and trainers in educational, industrial, and business settings.

#### HRD 3342: Career Development

This course covers topics on evolving career development theories. Focus will be placed on knowledge and skills that enable students to effectively develop and link personal competencies to organizations.

#### HRD 4311: Instructional Delivery

Study of methods and technologies of delivering instruction including diagnosis, alternative teaching strategies, and evaluation.

#### HRD 4313: Management of the Instructional Environment

Designed to provide trainers instruction on best practices for organizing and managing learning situations.

#### HRD 4321: Introduction to E-Learning

Introduction to the field of distance learning through the study and application of distance learning principles to educational and training settings via a variety of distance learning modalities.

#### HRD 4323: Developing Web-Based Instruction

A study of concepts and practices relating to the development, implementation and teaching of Internet courses.

#### HRD 4324: Multimedia and Animation Techniques

A technical course that develops advanced knowledge and skills in the use of computers for multimedia presentations and digital animation. It introduces students to 3-D modeling and rendering techniques and resources. This handson course allows students to create, edit, and render objects, and to design and produce multimedia presentations that use images, video, and audio resources to deliver a message.

#### HRD 4331: Workforce Development

Evaluation of the workforce of the nation and identifying, assessing and evaluating the needs of industry and education for a quality work force.

#### HRD 4332: Instructional Design and Assessment

A study of the fundamentals of course construction including job and trade analysis to determine the skills and related technical competencies needed in development of a course of study.

#### HRD 4350: Human Resource Development Topics

Areas of study in human resource development that reflect contemporary topics not covered by organized courses. Studies to include selected topics such as performance improvement, organization development and workplace learning. A maximum of six credit hours may be applied toward an undergraduate degree.

#### HRD 4370 & 4371: Undergraduate Internship Program

An eight to 16-week program providing for a teaching experience in an offcampus environment. **CR/NC only. Prerequisite**: Consent of Department chair.

#### HRD 4199-4699: Independent Study

Independent study in specific areas of Human Resource Development not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of academic advisor.

## Management (MANA)

#### MANA 1300: Introduction to Business

Provides a brief survey of the major functional areas of business including management, marketing, accounting, finance, and information technology, as well as core topics such as ethics and social responsibility, forms of ownership, small business, and international business.

#### MANA 3170: How to Get a Job

Develop job search, networking, and career management skills including business etiquette, salary negotiations, interviewing, and career management. Students will understand the concept of a personal brand, and develop resumes and cover letters to help meet career objectives. **Prerequisite:** Admission to BBA program.

#### MANA 3305: Operations Management

Management of the production function in business firms with special attention given to production, transportation, inventory, quality, and cost control. **Prerequisite:** TECH 2323 and MATH 1342.

#### MANA 3311: Managing People in Organizations

An understanding of individual characteristics and behavioral management concepts. Topics include personality, attribution theory, individual bias, motivation, team building, conflict resolutions, change management, leadership, interpersonal communication, and organizational design.

#### MANA 3315: Managing Modern Organizations

An understanding of individual characteristics and behavioral management concepts. Topics include personality, perception, attribution theory, cognitive bias, motivation, team building, conflict resolution, change management, leadership and interpersonal communication.

#### MANA 3320: Human Resource Management

An examination of the human resource functional areas of 1) planning, selection, and recruitment, 2) compensation, 3) human resource development, 4) employee and labor relations, and 5) safety, health, and security. **Prerequisite:** MANA 3311 or HRD 3333.

#### MANA 3325: Entrepreneurship

Exploration of all aspects of entrepreneurship and the process of creating new ventures. Topics will include the role of entrepreneurship in the economy, opportunity recognition and evaluation, bootstrapping, entrepreneurial strategies, venture financing, and managing the growth process.

#### MANA 3330: Management Information Systems

A survey of the tools and techniques for the gathering of business information and structuring and manipulation of data to support managerial decision making. Main topic area includes decision support system technology, artificial intelligence tools, expert systems and business applications such as SAP. **Prerequisite**: TECH 2323 or equivalent.

#### MANA 3370: Business Writing and Oral Presentations

Opportunity for development of clear and persuasive business communication skills, study of interpersonal communication channels in internal and external environments, and experience in writing business letters, reports, and other professional communications. **Prerequisite:** Admission to BBA program.

#### MANA 4310: International Management

Focuses upon the globalization of markets, technologies and business practices and how organizational leaders and managers deal with these changing forces. Topics include managing international trade, foreign manufacturing and global service industries such as transportation and mass communications.

#### MANA 4315: Managerial Decision Making

This course develops integrative decision-making skills in business. Topics include problem definition, generation of alternatives, data collection, quantitative analysis, and qualitative analysis. Course requires familiarity with Microsoft Office Suite and SAP. **Prerequisite**: MATH 1342 and TECH 2323.

#### MANA 4320: New Venture Planning

An application course designed to show students how to identify potential business opportunities, determine what constitutes a good business model, and how to implement a new business model. Students will prepare and present business plans during the semester.

#### MANA 4325: Compensation Administration

Job analysis and evaluation; development of a comprehensive compensation program including incentive systems, supplemental compensation, executive compensation, and benefits analysis. **Prerequisite**: MANA 3311 or HRD 3333.

#### MANA 4335: Labor Relations

Overview of labor law, rights of employers and unions in organizing and bargaining, grievance processing, arbitration, and collective bargaining strategy and tactics. **Prerequisite:** MANA 3311 or HRD 3333.

#### MANA 4345: E-Commerce

The effective use of e-commerce applications is becoming increasingly important to sustain competitive advantage in today's global environment. The course topics include e-commerce business models, internet consumer retailing, key e-commerce applications, support services strategy and implementation and website development. **Prerequisite:** TECH 2323.

#### MANA 4350: Database Information Systems

The basics of constructing, managing, and deploying relational database and ERP systems such as SAP in support of electronic-based commerce activities. Topics include the requirements of defining and using data in relational databases, and incorporating the collection, management, and use of data as an integral part of successful e-business endeavors.

#### MANA 4365: Undergraduate Internship

An 8 to 16 week program providing a learning experience in an off-campus environment. **Prerequisite:** Consent of academic advisor and 3.0 minimum GPA.

#### MANA 4370: Special Topics in Management

Studies in management to include such topics as organizational theory and structure, global challenges in management, and ethical issues confronting management. A maximum of six semester hours may be applied to a degree. May be repeated once for credit when content changes. **Prerequisite:** Consent of academic advisor.

#### MANA 4385: Strategic Leadership

Application of leadership theories across all levels of the firm. Topics may include top management team dynamics, team building, transformational change processes and corporate restructuring. **Prerequisite**: Consent of academic advisor.

#### MANA 4395: Strategic Management

Capstone course that integrates accounting, economics, law, finance, management, and marketing in the solution of an organization's problems. Focus on the problems and perspectives of the firm's top management team as they attempt to achieve and retain competitive advantages. **Prerequisite:** Completion of Common Business Core.

#### MANA 4199 - 4699: Independent Study

Independent study in specific areas of management not covered by organized undergraduate courses. A maximum of six credit hours for independent study may be applied toward an undergraduate degree. Independent study courses are available only to degree seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the Department chair. The proposal and the final report become part of the student's permanent record. **Prerequisite**: Consent of academic advisor.

## Marketing (MARK)

#### MARK 3311: Principles of Marketing

Marketing institutions, current market practices and structure of the market. Analysis of marketing functions, institutions, pricing, promotion, costs, marketing legislation and international marketing.

#### MARK 3325: Retailing in the 21st Century

Fundamental operations of retail institutions. Consideration is given to store location, merchandising, sales promotion, inventory control, store organization, and the use of enterprise resource planning systems such as SAP to integrate activities. **Prerequisite:** MARK 3311.

#### MARK 3350: Consumer Behavior

Analysis of psychological, sociological, and cultural aspects of human behavior affecting consumer's actions in the market place. Consumer purchase decision processes are also analyzed. **Prerequisite:** MARK 3311.

#### MARK 4300: Services Marketing

Decision making in the service industries such as accounting, education, finance, health, and other professional fields will be studied. Emphasis will be on problem solving for marketing in areas that are unique to the service sector. **Prerequisite:** MARK 3311

#### MARK 4305: Integrated Marketing Communication

Special attention is given to planning, strategy, analysis, and measurement of advertising effectiveness. Explores the subject of ethics and truth in advertising. **Prerequisite:** MARK 3311.

#### MARK 4310: Sports Marketing

A study of basic marketing concepts with applications to sport organizations, both amateur and professional. Topics include promotions and public relations, sport behavior, strategic market planning, marketing information management communications, and sponsorship.

#### MARK 4350: Personal Selling

This marketing course includes the principles of personal selling for both industrial and retail sales persons. Topics include prospecting, approaching, presenting, closing, and follow-up. The major emphasis is to understand the customer's needs, and contributing to the success of customer. **Prerequisite:** MARK 3311

#### MARK 4360: International Marketing

This course focuses on marketing strategy and management within the context of global and international markets. It evaluates cultural differences and aims to enhance your skills in developing and implementing marketing strategies and decision making in international contexts. **Prerequisite:** MARK 3311

#### MARK 4365: Sales Management

Decision making for sales executives. Organization and administration of sales departments with special attention to sales forecasting. **Prerequisite**: MARK 3311.

#### MARK 4370: Special Topics in Marketing

Areas of study in marketing that reflect contemporary topics not covered by organized courses. May be repeated once for credit when content changes. **Prerequisite**: MARK 3311.

#### MARK 4375: Undergraduate Internship

An 8 to 16 week program providing a learning experience in an off-campus environment. **Prerequisites:** Consent of academic advisor and 3.0 minimum GPA.

#### MARK 4380: Marketing Research

Informational input for decision making, scientific method, research design, and sampling relative to the research process for the solution of marketing problems. **Prerequisite**: MARK 3311 and MATH 1342.

#### MARK 4199 - 4699: Independent Study

Independent study in specific areas of marketing not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. Independent study courses are available only to degree-seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the department chair. The proposal and the final report become part of the student's permanent record. **Prerequisite**: Consent of academic advisor.

## Technology (TECH)

#### TECH 1301: Technology and Society

An introduction to technology systems as applied to manufacturing, distribution, communication, energy/power, etc. The course includes history, system design, operation, service, resources, products, emerging technological applications, and societal impact.

#### **TECH 1303: Engineering Graphics**

An introduction to engineering graphics techniques using computer aided drafting software. This course will cover specialized CAD techniques in lines, arcs, editing, and dimensioning. Also included will be geometric constructions, three-view drawing, sectioning, and basic 3-D drawing.

#### **TECH 1320: Industrial Materials**

An introduction to the basic characteristics of industrial materials. This survey course provides students with an insight into the nature of materials and how material attributes can be tested and altered for processing.

#### TECH 1330: Fundamentals of Electronics

An introduction to the basic fundamentals of electronics. Students are provided with an orientation to basic AC and DC concepts, resistance, capacitance, inductance, impedance, power, digital gating circuits, etc. Laboratory demonstrations reinforce conceptual discussions.

#### TECH 1365: Prototyping and Simulation

Experimentation and application of prototyping concepts using a variety of materials. The utilization of computer simulations will be introduced as a process for refining design projects. Prerequisite: TECH 1360.

#### TECH 2311: Mechanical and Fluid Systems

An introduction to the fundamentals of mechanical and fluid power systems. The students are provided with lecture and laboratory experiences.

#### TECH 2320: Accident Prevention in Technology

An overview of the fundamentals of off-the-job and on-the-job safety as related to hazard reduction and accident prevention. Safety and occupational health principles will be discussed to include both proactive and reactive safety procedures. Basic federal, state, and local safety and health compliance requirements will be introduced.

#### **TECH 2323: Introduction to Computer Applications**

A study of personal computer applications in the business environment with emphasis on specifying, installing, and using business applications and ERP systems such as SAP.

#### TECH 2330: Information Technology and Communications

An investigation of the concepts behind modern telecommunications systems. Students will explore the means by which systems are interconnected. Information will be provided regarding emerging developments in telecommunications hardware and software.

#### TECH 3311: Manufacturing Processes

Study of manufacturing related to materials processing. Students will be required to use various manufacturing processes in laboratory assignments.

#### TECH 3312: Facilities Operations & Maintenance

Study of procedures basic to the maintenance and operation of industrial facilities.

#### TECH 3313: Construction Technology

Designed to acquaint the student with construction systems, materials, equipment, municipal inspections, building codes, related service industries, and problems related to financing construction.

#### TECH 3315: Visual Communication Technology

An overview of blueprint reading, computer aided design, and solid modeling with an emphasis in managing visual and graphics communications within an industrial facility.

#### TECH 3324: Plant Layout and Facilities Planning

An introductory course in facilities planning including a wide range of topics such as: real estate, financing, insurance, ergonomics, site selection, architecture, management and plant layout.

#### TECH 3333: Polymer Processing

A study of processing methods for polymer-based materials. Processing methods include: injection molding, blow molding, thermoforming, compression molding, extrusion, filament winding, lay-up methods, and vacuum bag molding and poltrusion.

#### TECH 3341: Public Domain - Texas

Disposition of the Public Lands of the State of Texas. This course investigates the basis of all land mineral development in the State of Texas.

#### TECH 3342: Applications of Photogrammetry

Elements of map, photograph, and image interpretation in land use and site mitigation. Topics include: botany, wetlands, flood land hazard and waste sites.

#### TECH 3344: Industrial Safety

Study of environmental health and safety management as it relates to business and industry. Emphasis is placed on accident theory, hazard identification, safety organizations, environmental stressors, loss control and risk analysis.

#### TECH 3348: Construction Safety

Examines the application of OSHA 29CFR 1926 for the construction industry along with applicable state and federal construction safety laws pertaining to construction, altercations, or repair work at construction site.

#### TECH 3350: Risk Management for Safety and Health

A discussion, review, analysis, and application of risk management concepts employed for eliminating accidents, injuries, and total cost associated with workplace hazards while developing a zero accident culture.

#### TECH 3355: Supply Chain Management

An overview of supply chain operations covering logistics, outsourcing, distribution, warehousing, site location, and globalization.

#### TECH 4173: E-Portfolio

Students will compile an electronic portfolio of acquired managerial and technical concepts. Prerequisite or Co-Requisite: TECH 4372.

#### TECH 4301: Supervision

Designed to provide supervisors the opportunity to acquire knowledge with respect to their relationship to management, employees, unions, and special personnel. Emphasizes activities associated with production, quality control, personnel training, materials, equipment, records and reports.

#### **TECH 4302: Multiple Technology Systems**

An orientation to organizing multiple activities through study of such areas as production technology, communication technology, and energy technology. Fifteen hours of field experience is included in this course.

#### TECH 4303: Fire Safety Systems

Study of techniques in fire prevention through regulations, inflammable materials storage, inspection of premises, fire fighting equipment, maintenance procedures, fire detection systems, and local ordinances relating to fire control.

#### TECH 4304: Systems Safety Analysis

Study of accidents as systematic occurrences. Topics include probability, fault-free analysis and loss controls.

#### TECH 4310: Total Quality Management

An analysis and application of total quality management principles to include statistical process control, graphical problem solving techniques, acceptance sampling standards, and six sigma quality. This is an applied computer course.

#### TECH 4317: Computer Integrated Manufacturing

Study of the application of computer-aided-design, computer-aidedmanufacturing, computer numeric control, robotics, programmable electronic controllers, and communication networks to achieve automated manufacturing.

#### TECH 4320: Job Analysis Techniques

Provides a systematic procedure for identifying and analyzing tasks related to specific jobs.

#### TECH 4323: Lean Production

Applications of metal materials processing with an emphasis on lean manufacturing tools for reducing waste and streamlining production.

#### TECH 4325: Purchasing in Distribution and Manufacturing

A study of purchasing systems in the distribution enterprises. Emphasis is placed on supplier relations, planning for purchasing, strategic partnerships, cost analysis, value analysis, and performance analysis.

#### TECH 4327: Electronic Data Communications

A study of the application-to-application transfer of documentation in industrial distribution, customer service, and manufacturing. Traditional and Internet applications of electronic data interchange (EDI) and other forms of electronic commerce are investigated.

#### TECH 4330: Occupational Safety and Health

Study of standards, requirements, guidelines, forms, inspection kits, and corrective actions that are described within the Williams-Steiger Occupational Safety and Health Act of 1970.

#### **TECH 4332: Industrial Environmental Problems**

Study of the industrial environment as it relates to industrial hygiene and workplace health conditions. Environmental sampling criteria will be emphasized.

#### TECH 4334: Occupational Risk Factors

Study of risks involved in the handling, use and consumption of natural and human-made chemical agents. Exposure to physical agents and problems encountered in communicating risks to the public will be addressed.

#### TECH 4340: Behavioral Safety Concepts

This course is directed toward the understanding of how safety-related and atrisk work behaviors and attitudes in the work place can be improved. Areas of concern will include behavioral safety management concepts, barriers to behavioral safety management, and behavior based interventions in the work place.

#### TECH 4341: Legal Principles in Surveying and Mapping

Boundary law including topics on conflict and litigation, courtroom presentation, determination of boundaries, evidence and procedures and special boundaries such as gradient and riparian.

#### TECH 4342: Applied Geodesy

Application of precise surveying technology in boundary location and surveying. Topics covered are: photogrammetry, GPS, GIS, remote sensing, coordinate systems, and map projections.

#### TECH 4343: Advanced Manufacturing Processes

A survey of the latest manufacturing processes that are used in order to produce products that cannot be produced with conventional manufacturing processes. Processes covered will include non-traditional machining methods, abrasive machining, advanced casting methods, specialized welding methods, and other high-end processes used in manufacturing industries.

#### TECH 4350: Topics in Industrial Studies

Instruction and guidance by trained resource persons in selected topics related to technology. A maximum of six credit hours may be applied toward an undergraduate degree.

#### TECH 4356: Ergonomics in the Workplace

The study of laws of work in industrial ergonomics. The course examines design of work environment, work equipment, and tools associated with work tasks. Other areas of study will include anthropometrics data and ergonomic programs.

#### TECH 4358: Environmental Regulations

Explores and analyzes U.S. environmental developments from a historical, ethical, economical, and regulatory perspective. The environmental management of solid waste, air quality, and water quality will be studied as related to the safety professional.

#### TECH 4370 & 4371: Internship in Technology

An 8- to 16-week program offering learning experiences in an off-campus industrial, business or manufacturing environment. A minimum of 150 clock hours of learning experiences in an approved internship activity is required for 3 hours of credit. **CR/NC only. Prerequisite:** Consent of academic advisor.

#### TECH 4372: Capstone Experience

An end-of-program review of technical and managerial concepts. Students complete an electronic portfolio of acquired competencies.

#### TECH 4199 - 4699: Independent Study

Independent study in specific areas of technology not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite**: Consent of academic advisor.

# COLLEGE OF EDUCATION AND PSYCHOLOGY

#### Dr. William Geiger, Dean

#### Mission

The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service.

#### Goals

- Provide students with an outstanding academic preparation through the University Core Curriculum and their academic major.
- Prepare graduates for careers in the professional fields of elementary, middle, and secondary school teaching.
- Prepare graduates for professional careers in psychology.
- Prepare graduates with strong academic and professional foundations for further graduate and professional study.
- Provide graduates a total academic experience that enhances their lives and positively impacts humankind.

The College of Education and Psychology is composed of two academic departments and the School of Education offering courses and experiences fulfilling requirements for baccalaureate degrees and teaching certificates in a variety of disciplines.

The School of Education coordinates a Bachelor of Science degree program with a major in Interdisciplinary Studies that fulfills academic requirements for teacher certification in early childhood –grade 6, grades 4-8, or all-level special education. The School of Education also offers coursework leading to secondary and all-level teacher certification.

The Department of Psychology and Counseling offers a Bachelor of Arts degree and a Bachelor of Science degree with a major in psychology.

The Department of Educational Leadership offers masters degrees and certification for principal and superintendent. Information regarding these degrees and certifications may be found in the graduate section of this catalog.

Graduate degree programs in clinical psychology, counseling psychology, curriculum and instruction, early childhood education, educational leadership, reading, school counseling, and special education are described in the graduate section of this catalog. Information on post-baccalaureate certification programs and supplement certificates is also provided in the graduate section. Inquiries should be directed to the College of Education and Psychology or the Office of Graduate Studies.

## School of Education

#### Dr. Kathryn Morrison, Director

Programs described in this section lead to teaching certification in accordance with the standards of the State Board for Educator Certification. Professional Educator Programs are guided by acts of the Texas Legislature, policies of the State Board for Educator Certification, policies of the Educator Certification and Standards Division of the Texas Education Agency (TEA), and policies of the Texas Higher Education Coordinating Board and are subject to change. Please consult an advisor in the School of Education advising office to ascertain the latest policies and programs.

Through course work in the School of Education, students may obtain the Bachelor of Science degree with a major in interdisciplinary studies. All educator preparation programs offered through the School of Education reflect a commitment to collaboration with TEA-accredited schools in the region. Programs are designed to provide a mediated induction to the teaching profession through field-basing of professional education course work in a number of professional education school sites.

The School of Education also offers master's level degrees designed for teachers of all levels wanting to update their instructional skills or seeking additional certification. (See the graduate section of this catalog for information concerning the master's degrees in Curriculum and Instruction, Early Childhood, Reading, and Special Education.)

The goals of the School of Education at The University of Texas at Tyler are consistent with the Interstate New Teacher Assessment and Support Consortium (INTASC) principles to provide every pre-service teacher with the opportunity to:

- understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and to create learning experiences that make these aspects of subject matter meaningful for students.
- 2. understand how children learn and develop, and to provide learning opportunities that support their intellectual, social, and personal development.
- understand how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners.
- 4. understand and use a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.
- 5. use an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
- use knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
- 7. plan instruction based upon knowledge of subject matter, students, the community, and curriculum goals.
- 8. understand and use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.
- become a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.
- 10. foster relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

# Bachelor of Science in Interdisciplinary Studies (BSIS)

The Bachelor of Science in Interdisciplinary Studies degree is designed for students interested in Teaching Early Childhood through grade 6, Dual All Level (EC -12) Special Education and EC-6 Generalist Grade 4 through grade 8, or, Special Education (EC-12)

For a suggested course of study please see a School of Education advisor. Degree requirements are as follows:

#### Admission Requirements

- A. An acceptable score on the THEA (Texas Higher Education Assessment, formerly Texas Academic Skills Program (TASP)). The THEA/TASP test is designed to determine if students possess the basic skills in reading, writing, critical thinking, and mathematics necessary for university courses. Specific guidelines for exemptions are available in the office of the School of Education and on the School of Education website.
- B. Application for a degree plan filed with the appropriate academic department (for secondary and all-level certification students) or with the School of Education (BSIS majors). Post-baccalaureate students must have a post-baccalaureate certification plan;
- C. Payment of the administrative fee as indicated on a receipt from the cashier's office;
- D. Completion of a minimum of 48 semester credit hrs. with 44 credit hours in the core curriculum and a minimum cumulative 2.5 grade point average.
- E. Submission of evidence dated within the last calendar year that the student is free of tuberculosis.

#### Degree Requirements

- A. Completion of all course requirements leading to the BSIS degree with a "C" or better and a final cumulative GPA of at least 2.5.
- B. Completion of the University's 44-hour Core Curriculum requirements:

ENGL 1301 Grammar and Composition I	3
ENGL 1302 Grammar and Composition II	3
Math 1350 Concepts of Modern Mathematics I	3
Math 1351 Concepts of Modern Mathematics I	3
Life Science (must include lab)	4
Physical Science (must include lab)	4
World or European Literature	3
SPCM 1315 Fundamentals of Speech	3
Visual and Performing Arts	3
HIST 1301 United States History I	3
HIST 1302 United States History II	3
POLS 2305 Intro. American Government	3
POLS 2306 Introductory Texas Politics	3
Social/Behavioral Science	3

## BSIS Degree with EC-6 Generalist Certification

Total Semester Credit Hours = 120

## Sample Course Sequence: BSIS leading to EC-6 certification

#### Freshman

Fall (16 hrs) ENGL 1301 HIST 1301 Life Science (BIOL with lab) MATH 1314 GEOG 1313

Spring (16 hrs.) ENGL 1302 HIST 1302 MATH 1350 Physical Science (CHEM, or PHYS with lab) Visual and Performing Arts

#### Sophomore

Fall (16 hrs) SPCM 1315 ENGL 2322, 2323, 2362, or 2363 MATH 1351 POLS 2305 Science Elective (any BIOL, CHEM, or PHYS)

Spring (18 hrs.)

EDUC 1301 EDEC 3305 EPSY 3350 MATH 1342 POLS 2306

#### Junior

Fall (15 hrs) EDUC 2301 EDUC 4321 READ 4350 EDEC 3315 READ 3330 Spring (17 hrs.) GEOL 3310 OR 3314 EDEC 4385 EDUC 3220 ELED 4312 READ 4360 READ 4364

#### Senior

Fall (16 hrs) EDUC 4230 ELED 4313 ELED 4314 EDFB 3348 EDSP 4269 READ 4366

Spring (6 hrs.) EDUC 4640\* EDUC 4057

Field or clinical experiences are required in conjunction with professional education courses of the BSIS degree. The School of Education in cooperation with participating school districts assigns students to school placements.

\*Student Teaching: Requirements for admission to student teaching are provided at the end of the BSIS section of this catalog.

In order to be eligible for a recommendation for EC-6 teacher certification, candidates must pass required TExES examinations in addition to successfully completing the requirements for the BSIS degree and student teaching.

#### BSIS Degree with 4-8 Certification

Total Semester Credit Hours =120-125

The BSIS degree with 4-8 certification offers two options. Language Arts/Social Studies and Mathematics/Science.

## Sample Course Sequence: BSIS 4-8 Mathematics and Science (124 SCH)

#### Freshman Year

Fall (16 SCH) ENGL 1301 HIST 1301 BIOL 1306/1106 MATH 1314

Spring (16 SCH) ENGL 1302 HIST 1302 BIOL 1307/1107 MATH 1350 Visual and Performing Arts (3 SCH)

#### Sophomore Year

Fall (16 SCH) ENGL 2322, 2323, 2362, or 2363 POLS 2305 MATH 1351 MATH 1316 CHEM 1311/1111

Spring (17 SCH) SPCM 1315 MATH 2413/2113 POLS 2306 CHEM 1312/1112 Social and Behavioral Science (3 SCH)

#### Junior Year

Fall (19 SCH) EDUC 1301 EPSY 3340 EDUC 4321 BIOL 3332/3133; 3336/3137; 3345/3146 or 3147/3348 MATH 2414/2114

Spring (19 SCH) EDUC 4320 EDUC 2301 READ 4337 MATH 3203 CHEM 3310/3111 or 3342/3143 GEOL 3310 or 3314

#### Senior Year

Fall (16 SCH) EDUC 4313 EDUC 4314 EDFB 4338 MATH 2330 BIOL or CHEM (4 SCH—upper division)

Spring (6 SCH) EDUC 4640 EDU 4057

Sample Course Sequence: BSIS 4-8 Language Arts/Reading and Social Studies (120 SCH)

#### Freshman Year

Fall (16 SCH) ENGL 1301 HIST 1301 MATH 1314 BIOL (4 SCH) Elective (advisor approval)

Spring (16 SCH) ENGL 1302 HIST 1302 MATH 1350 Visual and Performing Arts (3 SCH) CHEM, or PHYS (4 SCH)

#### Sophomore Year

Fall (16 SCH) GEOG 1313 POLS 2305 Social and Behavioral Science (3 SCH) MATH 1351 Science (any BIOL, CHEM, or PHYS--4 SCH) Spring (15 SCH) SPCM 1315 POLS 2306 ENGL 2322, 2323, 2362, or 2363

EDUC 1301 EPSY 3340

#### Junior Year

Fall (18 SCH) ENGL 3375, 3385, 4376, or 4380 EDUC 4321 READ 4364 THTR 3320 or 4321 HIST 3301 READ 3332

Spring (18 SCH) EDUC 4320 EDUC 2301 READ 4337 ENGL 3308, 4300, 4305, 4310, 4315, 4320, 4325, 4330, 4335, 4341, 4345, 4350, 4355, 4360, or 4362 ECON 2301 or 2302 HIST 4320

#### Senior Year

Fall (15 SCH) EDUC 4315 EDUC 4312 EDFB 4338 SPCM 3325, 4301, or 4331 POLS 4330 or 4340

Spring (6 SCH) EDUC 4640 EDU 4057

Field or clinical experiences are required in conjunction with professional education courses of the BSIS degree. The School of Education in cooperation with participating school districts assigns students to school placements.

\*Student Teaching: Requirements for admission to student teaching are provided at the end of the BSIS section of this catalog.

In order to be eligible for a recommendation for 4-8 teacher certification, candidates must pass required TExES examinations in addition to successfully completing the requirements for the BSIS degree and student teaching.

# BSIS Degree with Dual EC-12 Special Education and EC-6 Generalist Certification

Total Semester Credit Hours = 129

Sample Course Sequence (Including Core Courses) for the EC-12 Special Education and EC-6 certification:

#### Freshman Year

Fall (15 SCH) ENGL 1301 Life Science (BIOL with lab) HIST 1301 MATH 1314 Social and Behavioral Science

Spring (16 SCH) ENGL 1302 HIST 1302 MATH 1350 Physical Science (CHEM or PHYS) Visual and Performing Arts

#### Sophomore Year

Fall (19 SCH) GEOG 1313 ENGL 2322, 2323, 2362, or 2363 MATH 1351 POLS 2305 Science Elective (any BIOL, CHEM, or PHYS) SPCM 1315

Spring (18 SCH) EDEC 3315 EDUC 1301 EPSY 3350 EDEC 3305 EDUC 2301 POLS 2306

#### Junior Year

Fall (18 SCH) EDUC 4321 READ 3330 GEOL 3310 or 3314 MATH 1342 READ 4350

Spring (17 SCH) EDEC 4385 EDUC 3220 ELED 4312 READ 4360 READ 4364

#### Senior Year

Fall (19 SCH) EDFB 3348 EDSP 4269 EDSP 4368 EDUC 4230 ELED 4313 ELED 4314 READ 4366

Spring (6 SCH) EDUC 4640\* EDUC 4057

Additional Required Courses EDSP 3354 EDSP 3356 EDSP 4360

Field or clinical experiences are required in conjunction with professional education courses of the BSIS degree. The School of Education in cooperation with participating school districts assigns students to school placements.

\*Student Teaching: Requirements for admission to student teaching are provided at the end of the BSIS section of this catalog.

In order to be eligible for a recommendation for EC-6 and special education teacher certification, candidates must pass required TEXES examinations in addition to successfully completing the requirements for the BSIS degree and student teaching.

### Admission to Student Teaching

BSIS: EC6 Certification: An application for admission to student teaching must be submitted to the School of Education early in the semester preceding the one in which the student plans to enroll in student teaching. The application will be approved if the student has completed the prerequisite courses for student teaching with a cumulative 2.5 grade point average and no grade lower than a "C"

Secondary Certification: An application for admission to student teaching must be submitted to the School of Education early in the semester preceding the one in which the student plans to enroll in student teaching. The application will be approved if the student has completed the prerequisite courses for student teaching with a cumulative 2.5 grade point average and no grade lower than a "C" on education courses.

## Initial Teacher Certification

Individuals desiring to teach in accredited public and private schools in Texas must be certified through the Educator Certification and Standards Division of the Texas Education Agency (TEA). The University of Texas at Tyler offers certification programs that lead to certification in:

- Early Childhood-Grade 6 (See the School of Education section of this catalog for degree requirements.)
- Grades 4-8. (See the School of Education section of this catalog for requirements.)
- Grades 8-12. (See the appropriate department section of this catalog for degree requirements. See the Secondary Certification section below for certification requirements.)
- Early Childhood-Grade 12 in Art, Health, Music, and Physical Education. (See the appropriate department section of this catalog for degree requirements. See the All-level Certification section below for certification requirements.)
- Early Childhood-Grade 12 Special Education with EC-6 Generalist. (See the School of Education section of this catalog for requirements.)

Students seeking a teaching certificate concurrently with a bachelor's degree should contact the Advising Center in the School of Education for advisement. Initial teacher certification is available for students seeking a bachelor's degree and for students who have earned a minimum of a bachelor's degree (post-baccalaureate students).

NOTE: Students who have an earned baccalaureate degree and seek teacher certification should contact the Certification Office for advisement. Information on post-baccalaureate initial teacher certification is provided in the Certificates and Supplements section in the graduate portion of the catalog within the College of Education and Psychology section.

#### Certification Program Completion Requirements:

- 1. Completion of Core Requirements for the degree with a "C" or better in each course;
- 2. Admission to the School of Education (see the School of Education section);
- 3. Completion of all education courses with a "C" or better, and a 2.5 cumulative GPA.;
- 4. A final cumulative GPA of at least 2.5;
- 5. Successful completion of student teaching or internship;
- 6. Successful completion of required TExES.
- 7. Complete Cardiopulmonary Resuscitation (CPR) training.
- 8. Submit to a national criminal history background check.

NOTE: The Division of Certification and Standards of the Texas Education Agency (TEA) in conjunction with the State Board for Educator Certification (SBEC) regulates the certification of educators to teach public school children. Working with the Texas Department of Public Safety (DPS) and the FBI, the Division of Educator Certification and Standards conducts a state and national criminal history background check on all applicants for educator certification, ensuring each candidate's suitability to teach children. Each student applying for certification must be fingerprinted by an authorized agency. TEA will provide a fingerprint packet at the time of the candidate's application. Students pursuing educator preparation should know that conviction for a felony or misdemeanor may lead to denial of teacher certification

### Early Childhood-6th Grade Certification

To complete the EC-6 teaching certificate, the undergraduate candidate must complete the Bachelor of Science in Interdisciplinary Studies and

required TExES examinations. The School of Education offers the requirements for this degree and certification. Refer to the BSIS section of this catalog for complete information.

### Grades 4-8 Certification

To complete the 4-8 teaching certificate, the undergraduate candidate must complete the Bachelor of Science in Interdisciplinary Studies and pass required TEXES examinations. These requirements are located in the BSIS section of this catalog.

## Grades 8-12 Certification

To complete the 8-12 teaching certificate, the undergraduate candidate must complete the Bachelor of Science or Bachelor of Arts degree that is appropriate for the designated teaching field. These requirements are located in the appropriate academic department. Admission requirements for candidates seeking 8-12 certification are provided in School of Education section following the Certification section of this catalog.

#### Designated Teaching Fields:

Chemistry (8-12) Computer Science (8-12) English Language Arts and Reading (8-12) History (8-12) Journalism (8-12) Life Sciences (8-12) Mathematics (8-12) Social Studies (8-12) Speech (8-12)

Candidates for 8-12 certification must complete the following professional education courses. (See the School of Education Advising Center for details)

#### 8-12 Professional Education Courses:

EDUC 1301 Introduction to the Teaching Profession EPSY 3340 Educational Psychology EDUC 2301 Introduction to Special Populations EDUC 4057 Student Teaching Seminar EDUC 4312 Social Studies <u>or</u> EDUC 4313 Math <u>or</u> EDUC 4314 Science <u>or</u> EDUC 4315 Language Arts <u>or</u> EDUC 4320 Teaching Skills for the Intermediate and Secondary Teacher EDFB 4338 Literacy in the Content Areas EDUC 4640 Student Teaching Take the appropriate pedagogy course, if required

\*Student Teaching: Requirements for admission to student teaching are provided in the School of Education section of this catalog.

Professional education courses require related field experiences. These experiences occur in TEA-accredited schools. Individual instructors assign specific course requirements related to field experience. Refer to course descriptions in the university catalog. The School of Education in cooperation with participating school districts assigns students to school placements.

#### Certification Program Completion Requirements:

- 1. Completion of Core Requirements for the degree with a "C" or better in each course;
- 2. Admission to the School of Education (see the School of Education section);
- 3. Completion of all education courses with a "C" or better, and a 2.5 cumulative GPA;
- Completion of appropriate content course requirements including all courses leading to the degree and the required GPA as designated by the content department;
- 5. Successful completion of student teaching or internship;
- 6. Successful completion of required TExES;
- 7. Complete Cardiopulmonary Resuscitation (CPR) training;

8. Submit to national criminal history background check.

### Certification Area: Chemistry (8-12)

Requirements for the Chemistry (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Science degree in chemistry. See an advisor in the Department of Chemistry in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Computer Science (8-12)

Requirements for the Computer Science (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Science degree in computer science. See an advisor in the Department of Computer Science in the College of Engineering and Computer Science for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: English Language Arts and Reading (8-12)

Requirements for the English Language Arts and Reading (8-12) teaching certificate include the professional education courses listed above, the content course requirements for the Bachelor of Arts degree in English, and the guided electives listed below. See an advisor in the Department of Languages and Literature in the College of Arts and Sciences for specific degree requirements.

#### Guided Electives-Required for teacher certification.

JOUR 2307 or JOUR 3385 JOUR 2311 SPCM 4301 SPCM 4331 SPCM 4326 READ 4364

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: History (8-12)

Requirements for the History (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Arts/Bachelor of Science degree in history. See an advisor in the Department of History in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Journalism (8-12)

Requirements for the Journalism (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Arts/Bachelor of Science degree in journalism. See an advisor in the Department of Communication in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Life Sciences (8-12)

Requirements for the Life Sciences (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Science degree in Biology--Life Science Certification Option. See an advisor in the Department of Biology of the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Mathematics (8-12)

Requirements for the Mathematics (8-12) teaching certificate include the professional education courses listed above and the content course requirements, including MATH 3365, for the Bachelor of Science degree in mathematics. See an advisor in the Department of Mathematics in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Social Studies (8-12)

Requirements for the Social Studies (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Arts/Bachelor of Science degree in history or the content course requirements for the Bachelor of Arts/Bachelor of Science degree in political science. Additionally, courses from the areas of economics, geography, and sociology are required (see below). See an advisor in the Department of History, the Department of Political Science, or the Department of Social Sciences in the College of Arts and Sciences for specific degree requirements. With a history degree, the following courses (27 hours) are required for social studies:

With a history degree, the following courses (27 hours) are required for social studies:

POLS 2305 and 2306	6
POLS 3330, 3335, 4320, 4330, 4340, 4353, or 4360	3
POLS 3310, 3315, 3370, 3372, 3375, 3380, 3390, 4310, or 4350	3
ECON 2301 and 2302	6
ECON 3305 or GEOG 3320. or GEOG 3325	3
GEOG 1313	3
SOCI 2326, 3321, or 3341	3
With a political science degree, all of the courses above plus the following History courses are required for social studies:	

HIST 1301 and 1302	6
HIST 2321 and 2322	6
Upper division World or European history	3
(selected with advisor approval)	
Upper division United States history	3
(selected with advisor approval)	

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Speech (8-12)

Requirements for the Speech (8-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Arts/Bachelor of Science degree in speech communication. See an advisor in the Department of Communication in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a

grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

## Grades EC-12 Certification

To complete the EC-12 teaching certificate, the undergraduate candidate must complete the Bachelor of Science, Bachelor of Arts, Bachelor of Fine Arts, or Bachelor of Music degree that is appropriate for the designated teaching field. These requirements are located in the appropriate academic department. Admission requirements for candidates seeking EC-12 certification are provided in the School of Education section following the Certification section of this catalog.

#### Designated Teaching Fields:

Art (EC-12) Health (EC-12) Music (EC-12) Physical Education (EC-12) Spanish (EC-12) Special Education (EC-12)

Candidates for EC-12 certification must complete the following professional education courses. (See the School of Education Advising Center for details.)

#### EC-12 Professional Education Courses:

EDUC 1301 Introduction to the Teaching Profession EPSY 3340 Educational Psychology EDUC 4320 Teaching Skills for the Intermediate and Secondary Teacher EDUC 2301 Introduction to Special Populations EDUC 4640 Student Teaching EDUC 4057 Student Teaching Seminar EDFB 4338 Literacy in the Content Areas Take the appropriate pedagogy course, if required EDUC 4312 Social Studies or EDUC 4313 Mathematics or EDUC 4314 Science or EDUC 4315 Language Arts

\*Student Teaching: Requirements for admission to student teaching are provided in the School of Education section of this catalog.

Professional education courses require related field experiences. These experiences occur in TEA-accredited schools. Individual instructors assign specific course requirements related to field experience. Refer to course descriptions in the university catalog. The School of Education in cooperation with participating school districts assigns students to school placements.

#### Certification Program Completion Requirements:

- 1. Completion of Core Requirements for the degree with a "C" or better in each course;
- 2. Admission to the School of Education (see the School of Education section);
- 3. Completion of all Professional Education courses with a "C" or better, and a cumulative 2.5 GPA.;
- 4. A final cumulative GPA of at least 2.5 for courses on the degree plan;
- 5. Completion of appropriate content course requirements leading to the degree and the required GPA as designated by the content department;
- 6. Successful completion of student teaching or internship;
- 7. Successful completion of required TExES;
- 8. Complete Cardiopulmonary Resuscitation (CPR) training;
- 9. Submit to national criminal history background check.

#### Certification Area: Art (EC-12)

Requirements for the Art (EC-12) teaching certificate include the professional education courses listed above and the content course requirements, including ART 3315, for the Bachelor of Arts/Bachelor of Fine Arts degree in art. See an advisor in the Department of Art in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Health (EC-12)

Requirements for the Health (EC-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Science degree in health. See an advisor in the Department of Health and Kinesiology in the College of Nursing and Health Sciences for specific degree requirements.

A minimum grade point average of 2.25 in all specialization courses, including a 2.25 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Music (EC-12)

Requirements for the Music (EC-12) teaching certificate include the professional education courses listed above and the content course requirements, including MUSI 3325, for the Bachelor of Music degree in music. See an advisor in the Department of Music in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Physical Education (EC-12)

Requirements for the Physical Education (EC-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Science degree in kinesiology. See an advisor in the Department of Health and Kinesiology in the College of Nursing and Health Sciences for specific degree requirements.

A minimum grade point average of 2.25 in all specialization courses, including a 2.25 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Spanish (EC-12)

Requirements for the Spanish (EC-12) teaching certificate include the professional education courses listed above and the content course requirements for the Bachelor of Arts degree in Spanish. See an advisor in the Department of Literature and Languages in the College of Arts and Sciences for specific degree requirements.

A minimum grade point average of 2.0 in all specialization courses, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a grade of "C" or better in all courses leading to certification. For further information regarding certification, see an advisor in the School of Education.

#### Certification Area: Special Education (EC-12)

Requirements for the Special Education (EC-12) teaching certificate include completion of the requirements for the Bachelor of Science in Interdisciplinary Studies degree with all-level special education certification and required TEXES examinations. The requirements for this degree and certification are located in the School of Education section of this catalog.

#### Supplements

A supplement attaches to the level of certificate being earned—EC-6, 4-8, 8-12, or EC-12.

To complete a teaching supplement to be added to a new or existing standard classroom teaching certificate, the undergraduate candidate must complete the Bachelor of Science or Bachelor of Arts degree that is appropriate for the designated teaching field and all requirements for a standard classroom teaching certificate. These requirements are located in the appropriate academic department as well as above.

A supplement may be earned in the following areas: bilingual education, English as a Second Language and special education.

NOTE: Bilingual education requires 6 hrs. at the graduate level. See your advisor in the School of Education in the College of Education and Psychology about this certification supplement.

#### Supplement: Bilingual

Completion of 12 hrs. of specific coursework. The bilingual certificate can be earned concurrently with an initial classroom teaching certificate or added to a valid Texas teacher certificate upon successful completion of the specified course sequence and passing scores on the state examinations.

ENGL 4377 ENGL 4378 EDBE 5338\* EDBE 5376\*

\*NOTE: These courses may only be taken when the undergraduate is within 12 hrs. of degree completion. They will not count toward the undergraduate degree.

A minimum grade point average of 2.0 in all courses leading to bilingual certification, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a minimum grade of "C" in all courses leading to the bilingual supplement.

Successful completion of required TEXES examinations is necessary for a recommendation for teacher certification.

#### Supplement: English as a Second Language (ESL)

Completion of 12 hrs. of specific coursework. The ESL certificate can be earned concurrently with an initial classroom teaching certificate or added to a valid Texas teacher certificate upon successful completion of the specified course sequence and a passing score on the state examination.

ENGL 3376 ENGL 4377 ENGL 4376

ENGL 4378

A minimum grade point average of 2.0 in all courses leading to English as a Second Language certification, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a minimum grade of "C" in all courses leading to the ESL supplement.

Successful completion of the required TEXES examination is necessary for a recommendation for teacher certification.

#### Supplement: Special Education

Completion of 15 hrs. of specific coursework. The special education supplement can be earned concurrently with an initial classroom teaching certificate or added to a valid Texas teacher certificate upon successful completion of the specified course sequence and a passing score on the state examination.

EDUC 2301 EDSP 3354 EDSP 3356 EDSP 4269 EDSP 4360

A minimum grade point average of 2.5 in all courses leading to the special education supplement is required. Prospective teachers must achieve a minimum grade of "C" in all courses leading to the special education supplement.

Successful completion of the required TEXES examination is necessary for a recommendation for teacher certification.

Field or clinical experiences are required in conjunction with professional education courses of the BSIS degree. The School of Education in cooperation with participating school districts assigns students to school placements.

## \*Student Teaching: Requirements for admission to student teaching are provided at the end of the BSIS section of this catalog.

In order to be eligible for a recommendation for EC-6 and special education teacher certification, candidates must pass required TExES examinations in addition to successfully completing the requirements for the BSIS degree and student teaching.

## Department of Psychology and Counseling

#### Dr. Charles Barké, Chair

The Department of Psychology and Counseling offers courses leading to Bachelor of Arts, Bachelor of Science, Master of Arts, and Master of Science degrees. Both baccalaureate degrees are acceptable preparation for graduate study in psychology or counseling. (See the graduate section of this catalog for information concerning the master's degrees in clinical psychology, counseling psychology, and school counseling.) Also, psychology may be chosen as a minor field of study.

#### Objectives and Overview

Psychology is the functional analysis of behavior and subjective mental phenomena, such as perceptions, thoughts, dreams, and emotions, which can be objectively defined by behavior. The normal individual human is the primary focus of undergraduate study, whereas the study of psychopathology and counseling is emphasized primarily at the graduate level. The objective of the psychology program is to provide students with the opportunity to better understand human behavior by acquiring a foundation of empirically derived psychological knowledge, by developing a critical, non intuitive perspective, and by learning analytical techniques.

Psychology traditionally serves as part of a well-balanced liberal arts education. Taken as a major, second major, or minor field of study, psychology can prepare students for the many diverse occupations in government, business, education, health, and ministry, which require working with people. It can prepare students for admission to professional schools and for graduate study that leads to licensure as clinical or counseling psychologists.

The psychology curriculum is concentrated at the upper-division (juniorsenior) level, except for PSYC 1301, PSYC 1349, and PSYC 2320. However, students choosing psychology as their major or minor may complete PSYC 3306, PSYC 3225 and PSYC 3125, PSYC 3354 and PSYC 3155 during their sophomore year. Majors and non-majors may take any psychology course identified as a general elective in their sophomore, junior, or senior years.

#### High School Preparation

A strong college preparatory program of study in high school, including algebra and biology, is helpful to students who plan to major in psychology. Also, students are expected to write and speak effectively.

## Bachelor of Arts in Psychology

Total Semester Credit Hours = 120

Requirements for the Bachelor of Arts degree in psychology include the following:

A. A minimum of 120 hours, including a minimum of 57 upper-division hours, 42 hours of psychology, at least 39 of which must be upperdivision hours, and a minimum 2.25 GPA in psychology requirements. Only grades of "C" or better will fulfill psychology requirements.

B. The University Core Curriculum of 44 semester hours

- C. Thirty (30) semester hours of core psychology courses:
  - PSYC 1301: Introduction to Psychology,
  - PSYC 3331: Experimental Psychology with PSYC 3232 Laboratory<sup>1,2</sup>

PSYC 3354: Psychological Statistics with PSYC 3155 Laboratory<sup>1</sup>

- PSYC 4301: Tests and Measurement,<sup>1</sup>
- PSYC 4311: Abnormal Psychology,
- PSYC 4321: History of Psychology
- PSYC 3225: Learning and Conditioning with PSYC 3125 Laboratory

PSYC 4318: Physiological Psychology

PSYC 4353: Developmental Psychology

- D. Six (6) hours from the following: PSYC 3306: Social Psychology,
  - PSYC 4315: Cognitive Psychology.<sup>1</sup>
  - PSYC 4319: Psychopharmacology
  - PSYC 4222: Developmental Psychobiology with PSYC 4122 Lab
  - PSYC 4223: Animal Behavior and Comparative Psychology with PSYC 4123: in Animal Behavior
- E. At least six (6) upper-level semester hours of general electives with approval of advisor. Only one course can be from the following options: PSYC 3342, PSYC 3360, or PSYC 3370. Courses not chosen in "D" above may be used.
- F. Thirty-one (31) semester hours of general electives with a minimum of 18 hours at the upper-division, for a total of 57 hours of degree requirements at the upper-level. The number of electives hours may vary depending on which course is used to satisfy the Social Science Core Curriculum requirement.
- G. Eighteen of the 42 upper-division semester hours in psychology, excluding independent study or internship, must be completed at UT Tyler.

#### Suggested Four-Year Curriculum

ouggesteu I		
Freshman Year	1	hrs.
PSYC 1301: Intr	o to Psychology	3
English Composi	ition	6
World or Europe		3
Mathematics		3
U.S. History		6
U.S. Governmen	It	6
Elective		3
Sophomore Year		
Natural Science a	and Lab	8
Visual/Performin	ng Arts	3
Humanities	0	3
Mathematics		3 3 3
PSYC 1349: Crit	tical Thinking	3
PSYC or General		12
Junior Year		
PSYC 3354:	Psyc Statistics	3
PSYC 3155:	Lab in Psyc Stat	1
PSYC 3225:	Learning & Cond	2
PSYC 3125:	Lab in Learn & Cond	1
PSYC 3306:	Social Psyc	
	PSYC 4223/4123; 4222/4122, 4320,	or 3
4319		
PSYC 3331:	Experimental Psyc	3 2 9 5
PSYC 3232:	Lab in Experiment Psyc	2
Psychology Elect		9
General Electives	3	5
Senior Year		
PSYC 4301:	Tests & Measurement	3
PSYC 4311:	Abnormal Psychology	3
PSYC 4318:	Physiological Psychology	3

PSYC 4301:	Tests & Measurement	3
PSYC 4311:	Abnormal Psychology	3
PSYC 4318:	Physiological Psychology	3
PSYC 4353:	Developmental Psychology	3
PSYC 4321:	History of Psychology	3
Psychology Alternative (PSYC 4315, PSYC 4223/4123;		3
4222/4122, 4320, or 4319		
General Electives		12

Note: Psychology Electives may include PSYC 3311, PSYC 3344, PSYC 3345, PSYC 3350, PSYC 3356, PSYC 4341, PSYC 4354, PSYC 4399, or other approved courses.

No student may enroll in 4000-level psychology courses in their first semester at UT Tyler without advisor approval. No correspondence course may apply toward elective or core psychology hours without the prior approval of the department chair. Psychology courses identified in the Schedule of Classes as "Intended as a General Elective" may not count toward the psychology major but may count as a general elective.

No correspondence course or non-UTT online course may apply toward elective or core psychology hours without the prior approval of the department chair.

Only courses in which a grade of "C" or better has been achieved may be counted toward degree requirements in the major. Graduation requires a GPA of at least 2.25 in psychology requirements. Students are advised to complete a degree plan during their first semester of enrollment.

General elective, upper-division courses in the following areas are strongly recommended: (1) the history of western or world civilizations, (2) cultural and physical anthropology, (3) philosophy, (4) social sciences (5) biological sciences, and (6) computer science.

## Bachelor of Science in Psychology

Total Semester Credit Hours = 120

Requirements for the Bachelor of Science degree in psychology include the following:

- A. A minimum of 120 hours, including a minimum of 57 upper-division hours, 42 hours of psychology, at least 39 of which must be upperdivision hours, and a minimum 2.25 GPA in psychology requirements. Only grades of "C" or better will fulfill psychology requirements.
- B. The University Core Curriculum of 44 semester hours
- C. Thirty (30) semester hours of core psychology courses:
  - PSYC 1301: Introduction to Psychology,

PSYC 3331: Experimental Psychology with PSYC 3232 Laboratory<sup>1,2</sup>

- PSYC 3354: Psychological Statistics with PSYC 3155 Laboratory<sup>1</sup>
- PSYC 4301: Tests and Measurement,<sup>1</sup>
- PSYC 4311: Abnormal Psychology,
- PSYC 4321: History of Psychology
- PSYC 3225: Learning and Conditioning with PSYC 3125 Laboratory
- PSYC 4318: Physiological Psychology
- PSYC 4353: Developmental Psychology
- D. Six (6) hours from the following:
  - PSYC 3306: Social Psychology,
  - PSYC 4315: Cognitive Psychology.<sup>1</sup>
  - PSYC 4319: Psychopharmacology
  - PSYC 4222: Developmental Psychobiology with PSYC 4122 Lab

PSYC 4223: Animal Behavior and Comparative Psychology with PSYC 4123: Lab in Animal Behavior

- E. At least six (6) upper-level semester hours of general electives with approval of advisor. Only one course can be from the following options: PSYC 3342, PSYC 3360, or PSYC 3370.
- F. Four courses totaling a minimum of 12 hours, of which 2 must be taken at the upper-division level. The courses can be from mathematics, sciences, and/or any of the Psychology courses from Section D above that are not used in the psychology core.
- G. Sixteen (16) to 19 hours of general electives with a minimum of 9 hours at the upper-division, for a total of 120 total hours. The number of electives hours may vary depending on which course is used to satisfy the Social Science Core Curriculum requirement.
- H. Eighteen of the 42 upper-division semester hours in psychology, excluding independent study or internship, must be completed at UT Tyler.

#### Suggested Four-Year Curriculum

Freshman Year	hrs.
PSYC 1301: Intro. to Psychology	3
English Composition	6
World or European Lit.	3
Mathematics	3

U.S. History		6
U.S. Governmen	ıt	6
Elective		3
Sophomore Year		
Natural Science a		8
Visual/Performin	ng Arts	3
Humanities	0	3
Mathematics		3 3 3 3
PSYC 1349: Crit		
PSYC or General		6
11	Iathematics, Sciences, Psychology	4
courses		
Junior Year		
PSYC 3354:	Psyc Statistics	3 1
PSYC 3155: PSYC 3225:	Lab in Psyc Stat Learning & Cond	1 2
PSYC 3125:	Lab in Learn & Cond	1
PSYC 3306:	Social Psyc	1
or PSYC 4315, F	PSYC 4223/4123; 4222/4122, 4320, or 4319	3
PSYC 3331:	Experimental Psyc	3
PSYC 3232:	Lab in Experiment Psyc	2
Psychology Elect	ives	9 5
General Electives	3	5
Senior Year		
PSYC 4301:	Tests & Measurement	3
PSYC 4311:	Abnormal Psychology	3
PSYC 4318:	Physiological Psychology	3
PSYC 4353:	Developmental Psychology	3
PSYC 4321:	History of Psychology	3
Psychology Alter	native (PSYC 4315, PSYC 4223/4123;	3
4222/4122, 4320		
**	Iathematics, Sciences, Psychology	6
courses General Electives	5	7
Note: Prucholom	Flactings man include DSVC 3311 DSVC 33/4	DSVC 22

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Note: Psychology Electives may include PSYC 3311, PSYC 3344, PSYC 3345, PSYC 3350, PSYC 3356, PSYC 4341 PSYC 4354, PSYC 4399, or other approved courses.

No student may enroll in 4000-level psychology courses in their first semester at UT Tyler without advisor approval. No correspondence course may apply toward elective or core psychology hours without the prior approval of the department chair. Psychology courses identified in the Schedule of Classes as "Intended as a General Elective" may not count toward the psychology major but may count as a general elective.

No correspondence course or non-UTT online course may apply toward elective or core psychology hours without the prior approval of the department chair.

Only courses in which a grade of "C" or better has been achieved may be counted toward degree requirements in the major. Graduation requires a GPA of at least 2.25 in psychology requirements. Students are advised to complete a degree plan during their first semester of enrollment.

General elective, upper-division courses in the following areas are strongly recommended: (1) the history of western or world civilizations, (2) cultural and physical anthropology, (3) philosophy, (4) social sciences (5) biological sciences, and (6) computer science.

### Minor in Psychology

Psychology may be chosen as a minor to satisfy requirements for certain bachelor's degree programs with majors in other fields. The program consists of 18 semester hours in psychology, at least nine of which must be advanced. Students should consult a psychology faculty advisor prior to enrolling in courses intended to count toward the minor.

# EDUCATION AND PSYCHOLOGY COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

## Early Childhood Education (EDEC)

#### EDEC 3305: Introduction to Early Childhood Education

An orientation to the study of early childhood education from its early beginnings to the present. Emphasis is on determining teacher roles, the preferred learning environment, and appropriate learning content for meeting individual differences and cultural diversities of young children. Five hours field experience required. Prerequisite for all EDEC courses.

#### EDEC 3315: Child Growth and Development

A study of the basic theories and principles of child development. Emphasizes characteristics of physical, cognitive, social, and emotional stages of development. Ten hours field experience required.

#### EDEC 3325: Infants and Toddlers in Group Settings

Assessment of developmental needs of the child (0-3 yrs.) in affective, psychomotor and cognitive areas of development. Emphasis is on priorities, provisions and practices in appropriate group setting and educational environments that consider individual differences, special needs and populations. Three hours of field experience required. **Co-requisite:** EDEC 3305.

#### EDEC 3342: ECE Development and Assessment

A study of the basic theories and principles of child development ages 3-10 with a focus on observation strategies and appropriate assessment of the child. The course provides a framework for applying theory in the learning environment. Ten hours field experience required. **Prerequisite:** EDEC 3305, 3325.

#### EDEC 4385: Creativity, Play and Learning

Demonstration of synthesis of child development, pedagogy, and developmentally appropriate practice in a classroom setting. Students will create a play-based environment for implementing integrated curriculum. **Prerequisite:** EDEC 3305, 3325.

#### EDEC 4199 - 4699: Independent Study

Independent study in specific areas of early childhood education not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of department chair.

## Education (EDUC)

#### EDUC 1301: Introduction to the Teaching Profession

Orientation to the teaching profession. Students participate in field observations at all levels of P-12 schools with varied and diverse student populations. Introduction to and analysis of the culture of schooling and classrooms. Course includes a 9-hour field component.

#### EDUC 2301: Introduction to Special Populations

This course introduces learning theory and provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic, academic diversity, and equity with an emphasis on factors that facilitate learning. Provides students with opportunities to participate in early field observations of P-12 special populations.

#### EDUC 3220: Teaching Skills and Classroom Management I

Designed to provide pre-service elementary teachers with the opportunity to acquire skills for effective planning, implementing, and evaluating instruction. It will also present strategies available for management, communication, and discipline at the introductory level. **Prerequisites:** Admission to the School of Education. EDUC 3310, ENGL 3330, EPSY 3350, EDUC 4321, EDEC 3305, EDEC 3325, EDSP 4350, READ 4350 **Co-Requisites:** EDUC 4312, READ 4360.

#### EDUC 4057: Student Teaching Seminar

Demonstration of synthesis of the pre-service teacher's knowledge and skills through reflective activities, review of learner-centered proficiencies, review of certification competencies, study skills, and test-taking skills. A culminating experience that prepares students for the required State exams. **CR/NC only. Co-requisites:** enrollment in student teaching, internship or EDUC 4058.

#### EDUC 4058: Educational Aide Internship

Demonstration of knowledge and skills as applied in the classroom in which the pre-service teacher serves as an aide rather than during a traditional student teaching experience. **CR/NC only. Co-requisites:** Enrollment in Phase III Professional Education courses and EDUC 4057.

#### EDUC 4230: Teaching Skills and Classroom Management II

Designed to provide pre-service elementary teachers with the opportunity to acquire advanced skills for effective planning, implementing, and evaluating instruction. I t will also present strategies available for management, communication, and discipline at the advanced level. **Prerequisites:** EDUC 3220, ELED 4312, READ 4360, READ 4364, EDEC 4385. **Co-requisites:** ELED 4313, ELED 4314, EDFB 3348, EDSP 4269, READ 4366.

#### EDUC 4160-4360: Special Topics

Thorough explorations of topics of substantial interest in education. Special tops courses may be repeated up to 9 semester credit hours if topics vary. **Prerequisites:** CI

**EDUC 4312: Teaching Social Studies in the Middle and High School** Study of social studies curriculum, materials, and selected instructional models. **Prerequisite:** Successful completion of all Phase II courses.

### EDUC 4313: Teaching Mathematics in the Middle and High School

Study of mathematics curriculum, materials, and selected instructional techniques in the middle and high school. **Prerequisite:** Successful completion of all Phase II courses.

#### EDUC 4314: Teaching Science in the Middle and High School

Study of science curriculum, materials, and selected instructional techniques in the middle and high school. **Prerequisite:** Successful completion of all Phase II courses.

#### EDUC 4315: Teaching Language Arts in the Middle and High School

Study of language arts curriculum, materials, and selected instructional techniques in the middle and high school. Field experience required. **Prerequisites:** Admission to the School of Education and a Senior in good standing. **Co-requisites:** EDUC 4312, READ 4338 or consent of the department.

## EDUC 4320: Teaching Skills for the Intermediate and Secondary Teacher

Designed to provide pre-service secondary teachers with the opportunity to acquire skills of effective planning, implementing, and evaluating instruction. **Prerequisites:** Admission to the School of Education and EDUC 1301 and EPSY 3340.

#### EDUC 4321: Integrating Technology in the Classroom

Examines ways in which technology can be integrated in educational settings to enhance teaching and learning. Maximizes the opportunity for hands-on learning.

#### EDUC 4640: Student Teaching EC-12

This one semester experience will provide pre-service teachers with an opportunity to demonstrate identified competencies in the classroom. The student works under the cooperative supervision of a public school teacher and a university supervisor. Cardiopulmonary resuscitation (CPR) training is required prior to student teaching. **Prerequisites:** Successful completion of all Phase III courses.

#### EDUC 4199 - 4699: Independent Study

Independent study in specific areas of education not covered by organized undergraduate courses. A maximum of six credit hours may be applied toward an undergraduate degree. **Prerequisite:** Consent of Director of School of Education.

## Educational Psychology (EPSY)

## EPSY 3340: Educational Psychology: Adolescent Development and Learning

The study of contemporary theories and principles of development, learning and motivation as they relate to the educational process. Special emphasis will be placed on applications to the adolescent period. Field experience required.

#### EPSY 3350: Educational Psychology: Learning

The study of the major theories of learning and motivation including related research. Emphasis will be on the applications of theories to teaching-learning situations. Field experience required.

## Elementary Education (ELED)

#### ELED 4312: Teaching Social Studies in the Elementary School

Study of social studies curriculum, materials, and selected instructional strategies. **Prerequisites:** Three semester hours of geography, EDUC 3310 and EPSY 3330, admission to the School of Education.

#### ELED 4313: Teaching Mathematics in the Elementary School

Scope and sequence of the elementary mathematics curriculum, materials, and selected instructional techniques. **Prerequisites:** MATH 1350, MATH 1351, EDUC 3310 and EPSY 3330, admission to the School of Education.

#### ELED 4314: Teaching Science in the Elementary School

A process approach will be emphasized in the study of selected science programs drawn from the biological, earth and physical sciences. **Prerequisite:** EDUC 3310 and EPSY 3330, three-four hours of life science and three-four hours of physical science with labs, admission to the School of Education.

## Field-Based Education (EDFB)

#### EDFB 3348: Curriculum in Early Childhood

Analysis of theory and principles of curriculum development for children in early care and education settings through fourth grade classrooms. Application of theory in developing integrated curriculum using a variety of planning and teaching tools and strategies. Ten hours field experience required. **Prerequisite:** EDEC 3305, 3325, and admission into the School of Education.

#### EDFB 4315: Teaching Skills: Grades 4-8

This course is designed to provide pre-service teachers with the opportunity to acquire skills for effective planning, implementing, and evaluating instruction in a field-based setting. **Co-requisite:** EDFB 4338 and EDFB 4379. **Prerequisite:** Admission to the School of Education and all Phase I and II courses.

#### EDFB 4338: Literacy in the Content Areas (Grade 5-12)

Focus on content literacy at the middle and secondary levels, including particular emphasis on instructional and learner strategies that develop and refine students' literacy skills. A content reading model will be implemented through modeling, demonstration, and application in a field-based classroom. **Prerequisites**: Admission to the School of Education and EDUC 3310, EPSY 3340, and all Phase II courses.

## Psychology (PSYC)

#### PSYC 1301: Introduction to Psychology

A survey of empirically based knowledge of behavior and mentation of individuals.

#### PSYC 1349: Critical Thinking, Logic & Reasoning

A study of specific strategies in thinking, including logic, problem-solving, heuristics, model-building, hypothesis-testing, and the techniques of deductive or probabilistic reasoning. Practice of skills and applications will be featured.

#### PSYC 2320: Lifespan Developmental Psychology

Physiological, perceptual, cognitive, social and affective change from conception to death, with an emphasis on transitions and developmental challenges throughout the lifespan.

#### PSYC 3125: Learning and Conditioning Laboratory

Laboratory exercises and demonstrations illustrating learning and conditioning in animals and humans. **Co-requisite:** Concurrent enrollment in PSYC 3225.

#### PSYC 3155: Laboratory in Psychological Statistics

Application of computers and statistical software to psychological research methods. **Co-requisite:** Concurrent enrollment in PSYC 3354.

#### PSYC 3225: Learning and Conditioning

A survey of historical and contemporary associative and cognitive learning theories, and related conditioning principles, as applied to human and non-human animals. **Co-requisite:** Concurrent enrollment in PSYC 3125.

#### PSYC 3232: Laboratory In Experimental Psychology

Features library research and technical writing. Preparation of an original research proposal, oral presentations and critical discussion of experimental design. **Co-requisite:** Concurrent enrollment in PSYC 3331.

#### PSYC 3301: Elements of Behavior

An appraisal of the antecedents and determinants of human behavior with special emphasis given to individual differences, motivation, learning, and personality development. This course should be completed as early as possible in the program of study of a student with a major in psychology.

#### PSYC 3306: Social Psychology

Theories, methods, and applications of social psychology. Effects of social or group influences on perception, learning, motivation, and the development of attitudes and opinions. Emphasis on conformity, prejudice, aggression, and persuasion techniques.

#### PSYC 3311: Psychology of Gender

An examination of gender from a psychological, sociological, and cultural perspective. How and why social expectations, standards, and opportunities tend to be systematically related to gender, and the effects on male and female experience.

#### PSYC 3331: Experimental Psychology

Designed to extend the student's ability to recognize and use typical behavioral research methods and controls. Emphasis will be given to experimental design techniques, evaluation of research articles, writing of journal reports, and statistical procedures used in psychological experiments. **Prerequisites:** PSYC 1301 and PSYC 3354 or equivalents. **Co-requisite:** Concurrent enrollment in PSYC 3232.

#### PSYC 3340: Critical Thinking, Logic and Reasoning

A study of specific strategies in thinking, including logic, problem-solving, heuristics, model-building, hypothesis-testing, and the techniques of deductive or probabilistic reasoning. Practice of skills and applications will be featured.

#### PSYC 3342: Drugs and Behavior

A survey course that examines human drug use from historical, societal, and biological perspectives. Emphasis will be on the general factors behind drug

tolerance, dependence, and abuse, and the psychological and behavioral effects of psychoactive drugs.

#### PSYC 3344: Industrial/Organizational Psychology

Consists of a survey of the applications and the factors that affect employee performance and morale in commercial and industrial settings.

#### PSYC 3345: Mental Health Services

A survey of the applications of psychology to mental health, human relations, and social services.

#### PSYC 3354: Psychological Statistics

An introduction to descriptive and inferential statistical methods used in psychological research. Emphasis will be on hypothesis testing with t-tests, analysis of variance, correlation, and selected non-parametric techniques. **Correquisite:** Concurrent enrollment in PSYC 3155.

#### PSYC 3350: Introduction to Clinical and Counseling Psychology

Examination of psychological principles as a basis for effective intervention in human problems. Introduction to the roles and functions of professional psychologists in mental health, medical, education, and community settings; theories and techniques of psychological interviewing and evaluation; and development of change programs for child and adult behavior problems.

#### PSYC 3356: Sensation and Perception

An introduction to vision, audition, olfaction, gustation, somatosensation, pain, signal detection, attention, psychophysical scales, and perceptual processes.

#### PSYC 3360: Psychology of Parenting

An examination of parents' roles and effects on the growth and life span development of their children. Emphasizes specific parenting styles and practices and their effects on the cognitive and social/emotional development and functioning of children at each stage of life. NOTE: May be used as a general elective but does not count as a core or elective psychology course.

#### PSYC 3370: Psychology of Love Relationships

This course provides students with knowledge and understanding of intimate human love relationships. The focus is on learning about different theories of love relationships, studying the results of research on love relationships, and learning skills that promote healthy, successful and satisfying love relationships. Students will also study cultural and gender differences in love relationships.

#### PSYC 4122: Developmental Psychobiology Laboratory

Students will participate in executing an original experiment involving the observation of maternal behavior. **Co-requisite:** Concurrent enrollment in PSYC 4222.

#### PSYC 4123: Animal Behavior Laboratory

Students will observe live animals in the laboratory and the zoo. **Co-requisite:** Concurrent enrollment in PSYC 4223.

#### PSYC 4222: Developmental Psychobiology

A critical review of the relationships between behavioral and biological aspects of the developing organism at all levels of organization. The course features a comparative analysis of maternal behavior. **Prerequisites:** PSYC 1301 or equivalent; introductory biology; upper-level standing. **Co-requisite:** Concurrent enrollment in PSYC 4122.

#### PSYC 4223: Animal Behavior and Comparative Psychology

An introduction to animal behavior and human behavior from the Darwinian perspective of behavioral ecology. **Prerequisites:** PSYC 1301 or equivalent; upper-level standing. **Co-requisite:** Concurrent enrollment in PSYC 4123.

#### PSYC 4301: Tests and Measurement

A survey course in psychological measurement with special emphasis given to the issues of test development and psychometric theory. The application of various tests in different settings is also addressed. Recommended: Prior completion of PSYC 1301 and PSYC 3354.

#### PSYC 4311: Abnormal Psychology

A review of abnormal psychology including clinical syndromes of deviancies, etiologies, and treatment tactics.

#### PSYC 4315: Cognitive Psychology

An examination of the cognitive processes involved in human mentation. Includes the study of attention, perceptual processes, memory, knowledge representation, language, decision making and problem solving. Recommended: Prior completion of PSYC 1301 or equivalent.

#### PSYC 4318: Physiological Psychology

Examines research techniques in physiological psychology, and the neurological basis of behavior; special emphasis given to the neurological basis of learning, memory, and abnormal behavior. Recommended: Introductory biology or equivalent.

#### PSYC 4319: Psychopharmacology

To acquaint students with the neurotransmitter systems of the central nervous system and to discuss therapeutic agents which influence these transmitter systems. Recommended: PSYC 4318.

#### PSYC 4320: Psychobiology

A study of behavior from an evolutionary and comparative perspective. Also, topics relevant to understanding behavior are presented from the fields of behavior genetics, sociobiology, ethology, and developmental psychobiology.

#### PSYC 4321: The History of Psychology

Historical developments in psychology with special consideration given to diverse systems or schools of psychology; the rationale and assumptions of divergent systems will be covered. **Prerequisite:** PSYC 1301.

#### PSYC 4341: Personality Theory

A survey of analytic, phenomenological, field, psychometric, biophysical and behavioristic theories of personality.

#### PSYC 4351: Child Development

The development of the child from conception through adolescence. Emphasis on growth of personality, psychological problems of children, growth of cognitive abilities, the interaction of heredity and environment, and the child's school, family and peers as positive and negative influences.

#### PSYC 4352: Adult Development

Emphasis on adult development and the aging process. This includes an overview of the cognitive, social, personal and biological features of aging.

#### PSYC 4353: Developmental Psychology

The study of theory and current research on developmental psychology across the lifespan, with an emphasis on the growth of personality and cognitive abilities, the interaction of heredity and environment, including the influence of family, peers, and social and cultural context, and transitions.

#### PSYC 4354: Sexual Victimization Across the Lifespan

A study of the prevalence and prevention of all types of sexual victimization. Includes forensic, research, and clinical information on rape, child sexual assault, and sexual harassment.

#### PSYC 4355: Psychology of Sleep and Dreams

An introduction to the physiology of sleep and dreaming behavior. Includes sleep disorders, their treatment, and the scoring of dream content.

#### PSYC 4360: Topics in Psychology

Thorough explorations of topics of substantial scholarly interest in psychology. **Prerequisite:** Senior standing in psychology or consent of instructor.

#### PSYC 4370 & 4371: Undergraduate Internship Program

An 8 to 16 week program offering a learning experience in a laboratory, clinic or other setting. 150 hours of supervised field experience is for each course. **CR/NC only. Prerequisite:** Consent of advisor.

#### PSYC 4199 - 4399: Independent Study

Independent study in specific areas of psychology not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of department chair.

## Reading Education (READ)

## READ 4337: Reading in the Intermediate and Middle School (Grades 4-8)

A study of learner/teacher strategies used within a reading/writing workshop approach to the teaching of literacy.

#### READ 3332: Adolescent Literature

Overview of adolescent literature. Designed primarily for students working toward Grades 4-8 and secondary certification.

#### READ 3330: Children's Literature

History and analysis of children's literature. Designed primarily for pre-school and elementary education majors.

## READ 4350: Pre kindergarten and Elementary Literacy (Grades PK-4)

A study of the specific reading needs of children in the pre-school and primary grades. Areas to be stressed include the interactive reading model, emerging literacy, essential knowledge and skills, lesson planning, literature-based and basal reading materials. Ten hours of field experience.

#### READ 4360: Literacy in the Elementary Classroom

An examination of literacy methods and materials and the framework for organization and implementation in the classroom. Field-based component required. **Prerequisite:** Successful completion of all Phase I classes and admission to the School of Education.

#### READ 4364: Assessment and Literacy Diagnosis Practicum

An overview and study of the individual and group diagnostic instruments and techniques used in assessing literacy skills and processes and the application of techniques to school-age clients.

#### READ 4366: Corrective Reading Practicum

A course designed to afford the student opportunity to implement the skills of assessment, instruction, and evaluation in a tutorial setting which utilizes a peer coaching model. **Prerequisites:** Successful completion of all Phase II classes.

## Special Education (EDSP)

#### EDSP 3351: Managing and Instructing Diverse Learners

An orientation to the field of special education and student diversity, including characteristics of individuals with special needs, cultural and/or linguistic differences, gifts and talents, and appropriate services for each population. Includes effective discipline models and behavior modification principles for managing diverse student populations. **Prerequisites:** EPSY 3340, EDUC 4321, and READ 4364. **Co-requisites:** EDFB 4315 and READ 4337.

## EDSP 3354: Instructional Programming for Students with Mild/Moderate Disabilities

A study of instructional techniques for use with learners with mild/moderate disabilities. Addresses assessment and instructional methods, accommodations, adaptations, strategies, and materials appropriate for teaching individuals with exceptionalities in a variety of educational settings. Includes field and practicum experiences. **Prerequisite:** EDUC 2301

## EDSP 3356: Instructional Programming for Students with Severe/Multiple Disabilities

A study of instructional techniques for use with learners with mild/moderate disabilities. Addresses assessment and instructional methods, accommodations, adaptations, strategies, and materials appropriate for teaching individuals with exceptionalities in a variety of educational settings. Includes field and practicum experiences. **Prerequisite:** EDUC 2301

#### EDSP 3363: Managing Behavior in School Settings

A study of disruptive behavior, including definitions, characteristics, identification, and academic and social interventions for managing behavior. Addresses major approaches for managing behavior. **Prerequisite:** EDSP 4350

#### EDSP 4360: Assessment and Collaboration in Special Education

A study of assessment and diagnosis of individuals with exceptionalities, and techniques for collaboration and consultation with professionals and parents. Addresses effective formal and informal assessment procedures, due process, procedural safeguard, communication, teaming collaboration in problem solving, and working with families. **Prerequisite**: EDUC 2301.

#### EDSP 4269: Educational Strategies for Individuals with Special Needs

Presentation and application of instructional strategies for individuals with special learning needs. Investigation and application of methodology, materials, and assistive/adaptive technology associated with the education of diverse and special learners. Clinical experience required. **Prerequisites:** EDEC 4385, EDUC 3220, ELED 4312, EDSP 4350, EPSY 3350, READ 4360, and READ 4364.

#### EDSP 4365: Assessment in Special Education

A study of assessment and diagnosis of individuals with exceptionalities. Includes formal and informal assessment procedures, due process procedural safeguards and parents' rights. Prerequisite: **Completion of** nine semester hours in special education or consent of instructor. Clinical experience required.

#### EDSP 4376: Collaboration and Consultation

A study of techniques for collaborating and consulting with professionals and parents. Addresses effective communication, learning, collaboration in problem solving, and working with families. **Prerequisite:** EDSP 4350.

#### EDSP 4199 - 4399: Independent Study

Independent study in specific areas of education of exceptional children not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of department chair.

# COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

#### Dr. James Nelson, Dean

In support of the University's mission, the College of Engineering and Computer Science offers six bachelor of science degree programs and four master's degree programs, supports education of university students in the area of technological literacy and the engineering design process, and provides non-credit continuing education courses in computer information technology and engineering through the resources of four departments – Department of Computer Science, Department of Civil Engineering, Department of Electrical Engineering, and Department of Mechanical Engineering.

The Department of Computer Science offers the Bachelor of Science in Computer Science, the Bachelor of Science in Computer Information Systems, the Master of Science in Computer Science, and supports secondary teacher certification in computer science and technology applications. The Department of Civil Engineering offers the Bachelor of Science in Civil Engineering, the Bachelor of Science in Construction Management, and the Master of Science in Civil Engineering. The Department of Electrical Engineering offers the Bachelor of Science in Electrical Engineering and the Master of Science in Electrical Engineering. The Department of Mechanical Engineering offers the Bachelor of Science in Mechanical Engineering and the Master of Science in Mechanical Engineering.

#### Mission Statement

The mission of The University of Texas at Tyler College of Engineering and Computer Science is to provide high quality undergraduate and graduate engineering, computer science, and construction management education relevant to a rapidly changing technological world and to service the developing needs of the region, state, and nation, recognizing our international scope and influence in the global society.

#### **Primary Goals**

The primary goals of The University of Texas at Tyler College of Engineering and Computer Science are

- 1. High quality, relevant undergraduate construction management, computer science, and engineering education
  - an integrated-systems, applications-oriented approach
  - broad general education, science, and ethics components
  - critical thinking, problem solving, design, computer, oral and written communication, teamwork, and leadership skills threaded throughout the curricula and increasing in complexity from the freshman year through the senior year
- 2. High quality, relevant graduate computer science and engineering education serving both full-time and part-time master's degree students
  - depth in and focus on advanced computer science or engineering topics or
  - multidisciplinary programs of advanced studies
- 3. Close working relationships between the university and business and industry
  - advisory boards of executives and practitioners
  - faculty working with industry in R&D and as consultants and summer employees
  - students working for industry in co-op and paid internship programs
  - real-world senior design projects described by and supported by business and industry

- speakers and mentors and field trips for students from business and industry
- graduates working for and providing leadership for business and industry
- education leading to degrees for current employees
- continuing education seminars, short courses, workshops for current employees
- new product / new business development center partnerships between university and business and industry

The Civil Engineering, Electrical Engineering, and Mechanical Engineering programs are accredited by the Engineering Accreditation Commission of ABET, 111 Market place, Suite 1050, Baltimore, MD 21202-4012; (410) 347-7700.

## Department of Computer Science

#### Dr. Stephen B. Rainwater, Acting Chair

The Department of Computer Science offers the Bachelor of Science in Computer Science and Bachelor of Science in Computer Information Systems, supports secondary teacher certifications in computer science, and is authorized to award CNSS 4011 and 4012 computer security certifications.

The degree programs prepare students for work in a wide variety of computing environments. Both the Bachelor of Science in Computer Science and Bachelor of Science in Computer Information Systems curricula incorporate exposure to specific computer science content, the design and implementation of reliable and secure computer systems, computer programming, development of logical reasoning, utilization of problem-solving, and encouragement of the creative process via design projects and independent research.

#### **Mission Statement**

The Department of Computer Science aspires to innovative leadership in preparing men and women for meaningful work, lifelong learning, and responsible participation in a new and dynamic information age. To accomplish this, the Department offers a broad spectrum of educational programs with corporate partners from the local and global community.

The Department fulfills a unique role. It provides professional education in the computing disciplines, supporting education for programs in the other colleges, and general education for all students. Because continuing change characterizes information technology, computer science programs are built upon a strong foundation in the arts and sciences and emphasize competency in the theory and methodology of the computing disciplines. At the same time, degree programs are responsive to the rapid pace of technological development.

The Department is characterized by its core values:

- excellent teaching that is informed by scholarship, professional practice, and community service;
- integration of theory and practice in teaching and scholarly activities;
- currency in new technology and its applications;
- creative programs and partnerships with the local and global community;
- attentiveness to professional ethics and social responsibility;
- research leadership in exploring new directions and new developments in computing and its applications.

Both significant individual and team-oriented design experiences, as well as the development of students' oral and written communication skills, are stressed. Design experiences are integrated throughout the curriculum. Additionally, students are provided the opportunity to interface with the profession through avenues such as co-operative education, professional society activities, student internships, project assignments, class-oriented documented deliverables, and professional speakers.

The Department values diversity and welcomes qualified students of various experiences and origins, whether regional, national, or international. It provides excellent service to students both within and outside the classroom. It uses the power of technology to offer broad opportunity to students and to enable them to achieve excellence. Throughout its programs and services, the Department of Computer Science consistently recognizes that information technologies are tools for the empowerment of people.

## Bachelor of Science in Computer Science Objectives

#### Program Educational Objectives:

Educational objectives of the computer science program are the knowledge, skills and experiences that enable graduates to:

- model, simulate, and solve computational problems using appropriate theoretical and experimental methods, producing reliable and secure systems;
- 2. think critically and creatively, communicate clearly, work effectively with others, and develop leadership skills;
- integrate computational principles with social, business, and ethical issues in modern society in the process of decision making;
- 4. be professionally engaged in serving the needs of business, industry, government, and academic organizations;
- 5. grow professionally through activities such as graduate study, continuing education, professional certifications, and participation in professional organizations.

#### **Program Outcomes:**

Computer Science students at the time of graduation are expected to:

- 1. possess knowledge of the fundamentals of mathematics, science, and technology;
- 2. be able to use modern computational tools and techniques in the practice of computer science;
- 3. be able to develop logically sound and efficient algorithms;
- be prepared to implement algorithms in multiple programming languages, on multiple hardware platforms, and in multiple operating system environments;
- be able to perform analysis, design, implementation, testing, and maintenance of computer-based systems, stressing software engineering principles;
- be prepared to seek continuing professional development, graduate studies, or professional certifications related to computer science;
- possess a knowledge of computer security and computer security management;
- 8. demonstrate effective written, visual, and oral communication skills;
- 9. possess an educational background to understand the global context in which computer science is practiced, including:
  - a. knowledge of contemporary issues related to computer science;
  - b. the impact of computers on society;
  - c. the role of ethics in the practice of computer science;
- 10. be able to contribute effectively as members of a project development team;
- 11. recognize the need to pursue continued learning throughout their professional careers.

#### Graduation Requirements

Upon a student's admission to the Computer Science major, a faculty member will serve as the student's academic advisor to work with the student in planning a program to complete the degree requirements. Students are encouraged to meet with their academic advisor throughout the semester and are required to meet with their advisor prior to registering for the next semester.

Before enrolling in upper-division (junior and senior level) courses,

students must have earned a grade of "C" or better in each of the following:

Programming Fundamentals	3 or 4 semester hours
Object-Oriented Programming	3 or 4 semester hours
Data Structures and Algorithms	3 semester hours
Computer Organization	3 semester hours
Calculus I and II	6 to 8 semester hours
University Physics I and II	8 semester hours

Preparation should be started for upper-division work in supporting areas such as business, mathematics, engineering, or physical science.

To graduate with a degree in Computer Science, the student must meet the following specific requirements in addition to the general baccalaureate degree requirements:

- A. 2.0 grade point average in all upper-division computer science courses attempted and a grade of "C" or better in all courses listed in C.1, C.2, C.3, and D. below.
- B. Thirty-four semester hours of upper-division computer science courses, with at least 18 hours completed at UT Tyler.
- C. Forty-eight hours of computer science courses
- 1. Required courses are as follows:
  - COSC 1336: Programming Fundamentals
  - COSC 1136: Programming Fundamentals Lab
  - COSC 1337: The Object-Oriented Paradigm
  - COSC 1137: The Object-Oriented Paradigm Lab
  - COSC 2315: Computer Organization
  - COSC 2336: Data Structures and Algorithms
  - COSC 3325: Algorithm Design and Analysis
  - COSC 3315: Social and Professional Issues
  - COSC 3355: Operating Systems
  - COSC 3345: Computer Architecture
  - COSC 3145: Computer Architecture Lab
  - COSC 4385: Database Management Concepts
  - COSC 4360: Net-Centric Computing
  - COSC 4315: Information Knowledge and Management
  - COSC 4336: Software Development
  - COSC 4395: Capstone Project
  - 2. Six semester hours of approved upper-division COSC electives.
  - 3. Three semester hours in an approved technical elective.
- D. Thirty-four semester hours of specified support courses:
  - MATH 2413: Calculus I
  - MATH 2414: Calculus II
  - MATH 2330: Discrete Structures
  - MATH 3351: Probability and Statistics for Engineers
  - MATH 3203: Matrix Methods in Science and Engineering
  - MANA 3370: Information and Communication Techniques
  - PHYS 2325: University Physics I
  - PHYS 2125: University Physics I Lab
  - PHYS 2326: University Physics II
  - PHYS 2126: University Physics II Lab
  - Three-hour approved elective in science or mathematics.
  - Additional four-hour physical science and lab elective.
- E. Twelve hours of approved electives in supporting disciplines. At least six hours must be upper-division.

# Bachelor of Science in Computer Science Requirements

Total Semester Credit Hours= 127

#### Freshman Year

First Semester COSC 1336: Programming Fund. COSC 1136: Programming Fund. Lab HIST 1301: US History I MATH 2413: Calculus I ENGL 1301: Grammar and Comp. I Social Science Core requirement Hours	3 1 3 4 3 3 17
Second Semester COSC 1337: Object-Orient. Paradigm COSC 1137: Object-Orient Paradigm Lab HIST 1302: US History II MATH 2414: Calculus II ENGL 1302: Grammar and Comp II MATH 2330: Discrete Structures	3 1 3 4 3 3
Hours	17
Sophomore Year First Semester COSC 2336: Data Structures and Algorithms MATH 3203: Matrix Methods POLS 2305: American Government PHYS 2325 : University Physics I PHYS 2125: University Physics Lab I Visual/Performing Arts Hours	3 $2$ $3$ $1$ $3$ $15$
Second Semester COSC 2315: Computer Organization ENGL 23xx: World/ European Lit. POLS 2306: Texas Politics PHYS 2326: University Physics II PHYS 2126: University Physics Lab II Humanities Hours	3 3 3 1 3 16
Junior Year	
First Semester COSC 3325: Algorithm Design COSC 3315: Social and Prof. Issues COSC 3345: Computer Architecture COSC 3145: Computer Arch. Lab Physical Science III Physical Science III Lab COSC 4385: Database Management Concepts Hours	3 3 1 3 1 3 1 3 17
Second Semester COSC 3355: Operating Systems COSC 4336: Software Development MANA 3370: Info. & Communication Approved Elective I Approved Math/Science Elective Social Sciences Hours	3 3 3 3 3 3 18
Senior Year	

First Semester	
COSC approved elective	
COSC 4360: Net-Centric Computing	

COSC 4315: Info. Knowledge & Mgmt. MATH 3351: Probability and Stats for	3 3
Engineers Approved Elective II	3
Hours	15
Second Semester	
COSC 4395: Capstone Project	3
Approved CS Technical Elective	3
Approved CS Elective II	3
Approved Elective III	3
Approved Elective IV	3
Hours	15

# Bachelor of Science in Computer Information Systems Objectives

#### Program Educational Objectives:

Educational objectives of the computer information systems program are the knowledge, skills, and experiences that enable graduates to:

- 1. investigate and analyze business problems, providing reliable and secure computerized solutions;
- 2. grow professionally through activities such as graduate study, continuing education, professional certifications, and participation in professional organizations;
- 3. think critically and creatively, communicate clearly, work effectively with others, and develop leadership skills;
- 4. demonstrate an understanding of social and ethical issues in the computer profession;
- 5. understand the organizational impact of computer-based information systems.

#### Program Outcomes:

Computer Information Systems students at the time of graduation are expected to:

- 1. be prepared to contribute immediately as information systems professionals;
- 2. be able to design and implement information systems that satisfy user requirements;
- 3. possess a knowledge of computer security and computer security management;
- 4. demonstrate effective written, visual, and oral communication skills;
- 5. understand the global context in which computer information systems are practiced, including:
  - a. contemporary issues related to business and technology;
  - b. the impact of computers on society;
  - c. the role of ethics in the practice of information systems profession;
- 6. be able to contribute effectively as members of systems development teams;
- 7. recognize the need to pursue continued learning throughout their professional careers.

#### Graduation Requirements

Upon a student's admission to the Computer Information Systems major, a faculty member will serve as the student's academic advisor to work with the student in planning a program to complete the degree requirements. Students are encouraged to meet with their academic advisor throughout the semester and are required to meet with their advisor prior to registering for the next semester.

Before enrolling in upper-division (junior and senior level) courses, students must have earned a grade of "C" or better in each of the following:

students must have carned a grade of	e of better in each of the following.
Programming Fundamentals	3 or 4 semester hours
Object-Oriented Programming	3 or 4 semester hours
Advanced Microsoft Office	3 semester hours

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Introduction to Information Systems with Visual BASIC	3 semester hours	S
Computer Organization	3 semester hours	
Finite Mathematics I and II	6 semester hours	0
Principles of Accounting I and II	6 to 8 semester hours	F
In addition, preparation should be start supporting areas such as accounting, bioin		ŀ
management, and medical records databas		]
To graduate with a degree in Computer	6	]
student must meet the following specific regeneral baccalaureate degree requirements:	equirements in addition to the	s
A. Twenty-seven semester hours of upper- at least 15 hours completed at UT Tyle		э F
B. Grade of "C" or better in all COSC co	urses and courses listed in C.1,	A
C.2, and C.3 below.		N
C. Forty-four hours of computer science	courses:	N
1. Required courses are as follows:		N
COSC 1310: Advanced Information		N
COSC 1336: Programming Fundame		0
COSC 1136: Programming Fundame		S A
COSC 1337: The Object-Oriented P	e	(
COSC 1137: The Object-Oriented P	0	N
COSC 2325: Foundations of Compu		(   N
COSC 2315: Computer Organizatio		N
COSC 3310: Internet and Web Appl		
COSC 3365: Programming with Dat	ta, File and Object Structures	-
COSC 3385: Database Design		J
COSC 3375: Analysis and Logical De	e de la companya de la	F
COSC 4309: Design of Modern Info		$\left( \begin{array}{c} c \\ c \end{array} \right)$
COSC 4325: Data Communications	*	( \
COSC 4375: Information Systems De 2. Six hours of approved upper-division	<b>e</b> ,	V V
3. Three semester hours in an approve		P S
<ul> <li>D. Thirty hours of specified support court</li> <li>1. ACCT 2301: Principles of Financia</li> </ul>	ses:	
ACCT 2302: Principles of Manageria	-	S
MANA 3370: Information and Comr		E
MANA 3311: Organization Theory a	1	P
MANA 3330: Management Informati		N A
•	•	1
GENB 3301: Business Law and Socia Social and Professional Issues in C 2. MATH 1324: Mathematics for Bu	Computing)	s
MATH 1325: Mathematics for Busin		F
MATH 1323: Mathematics for Busin MATH 1342: Statistics	ess and Economics II	(
		C N
MATH 2330: Discrete Structures	upporting disciplines. Nine hours	C
E. Twelve hours of approved electives in s must be upper-division	supporting disciplines. Nine nours	A
Dechalor of Colones in Course	utar Information	S
Bachelor of Science in Compu		$\left( \begin{array}{c} \\ \\ \\ \\ \end{array} \right)$
Systems Requirements		A
Total Semester Credit Hours=127		A
Freshman Year		A

#### Freshman Year

First Semester	
COSC 1310: Adv. Info. Systems Software	3
COSC 1336: Programming Fundamentals	3
COSC 1136: Programming Fund. Lab	1
ENGL 1301: Grammar and Comp. I	3
HIST 1301: US History I	3
MATH 1324: Math for Bus. and Econ. I	3
Hours	16

Second Semester COSC 1337: Object-Orient. Paradigm	3
, 8	
COSC 1137: Object-Orient. Par. Lab	1
ENGL 1302: Grammar and Comp. II	3
HIST 1302: US History II	3
MATH 1325: Math for Bus. and Econ. II	3
Humanities	3
Hours	16

#### Sophomore Year

	First	Semester
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First Semester ACCT 2301: Princ. of Financial Acct. COSC 2325: Found. Comp. Info. Sys. MANA 3330: Mgmt. Information Systems Natural Science I Natural Science Lab I MATH 2330: Discrete Structures Hours	$ \begin{array}{r} 3\\3\\3\\1\\\\\underline{}\\1\\\underline{}\\16\end{array} $
Second Semester ACCT 2302: Princ. of Managerial Acctg. COSC 2315: Computer Organization MATH 1342: Statistics COSC 3310: Internet and Web App. Natural Science II Natural Science Lab II Hours	$     \begin{array}{r}       3 \\       3 \\       3 \\       3 \\       1 \\       16     \end{array} $
Junior Year	
First Semester COSC 3365: Progr. Data, File, Obj. Struct COSC 3375: Analysis and Logical Design Visual/Performing Arts World/European Literature POLS 2305: American Government Social Sciences Hours	3 3 3 3 3 3 18
Second Semester COSC 3385: Database Design BLAW 3306 or COSC 3315 POLS 2306: Texas Government MANA 3311: Organizational Behavior Approved Elective I Hours	3 $3$ $3$ $-$ $15$
Senior Year	
First Semester COSC 4309: Design of Info. Systems COSC 4325: Data Commun./Networks MANA 3370: Info./ Commun. Techniques	

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COSC 4309: Design of Info. Systems	3
COSC 4325: Data Commun./Networks	3
MANA 3370: Info./ Commun. Techniques	3
COSC approved elective I	3
Approved upper-division Elective II	3
Hours	15
Second Semester	
COSC 4375: Info. Systems Design Proj.	3
COSC: Approved CS Elective II	3
Approved Elective III	3
Approved Elective IV	3
Approved Technical Elective	3
Hours	15

### Computer Science as a Minor

A student may choose Computer Science as a minor to satisfy bachelor degree programs with majors in other fields. This program requires a total of 20 semester hours of Computer Science. Courses required are:

COSC 1336: Programming Fundamentals COSC 1136: Programming Fundamentals Lab

COSC 1337: The Object-Oriented Paradigm COSC 1137: The Object-Oriented Paradigm Lab COSC 2336: Data Structures and Algorithms COSC 2315: Computer Organization Six additional hours of upper-division COSC courses

#### Computer Information Systems as a Minor

A student may choose Computer Information Systems as a minor to satisfy bachelor degree programs with majors in other fields. This program requires a total of 22 semester hours of Computer Information Systems. Courses required are:

COSC 1310: Advanced Information Systems Software

COSC 1336: Programming Fundamentals

COSC 1136: Programming Fundamentals Lab

COSC 2325: Foundations of Computer Information Systems

COSC 3310: Internet and Web Applications

COSC 3365: Programming with Data, File and Object Structures

COSC 3375: Analysis and Logical Design

COSC 3385: Database Design

#### Cooperative Computer Science Education Program

The Computer Science cooperative (co-op) program is offered as an educational enhancement to the Bachelor of Science degree in Computer Science and the Bachelor of Science degree in Computer Information Systems. To complete the computer science co-op program, a student works full-time in an approved computing or information technology environment for three semesters, before the student's senior year. Students may fulfill their three semester requirement by working during three 12 week summer semesters.

To participate in the computer science co-op program, a student must have completed at least one semester at UT Tyler with a cumulative GPA of at least 2.5 on all course work completed at UT Tyler; and the student must have completed COSC 1336/1136 and COSC 1337/1137 (or their equivalents) with a grade of "C" or better. Students must maintain a 2.5 GPA to continue their participation in the co-op program. The student, an assigned computer science faculty member, and an official representative of the host company will develop a written plan of activities that constitute the goals for each semester of the co-op. The student, in cooperation with an official representative of the host company, will provide periodic reports to the assigned computer science faculty member to demonstrate satisfactory progress toward the goals of the written plan. A summary report/performance evaluation of the work of the student at the end of the semester is also required.

During the student's co-op semesters he/she will be considered a fulltime student at UT Tyler and will register for the appropriate one semester hour co-op course selected from COSC 3191, 3192, or 3193.

Students may apply to participate in the computer science co-op program by submitting a co-op application form to the chair of the department at least six weeks prior to the semester in which the student plans to start the co-op.

#### **Teacher Certification**

Candidates for secondary teaching certification (grades 8-12) should pursue a major in computer science and should consult with an advisor in the School of Education, College of Education and Psychology. In addition to the required professional education course sequence, requirements for secondary certification in computer science are outlined below:

A candidate for certification must:

- A. Complete a minimum of 12 upper-division semester hours of computer science at UT Tyler.
- B. Have a minimum grade point average of 2.0 in all upper-division computer science courses attempted and a grade of "C" or better in each of the computer science or math courses listed below.
  - 1. Non-degreed, non-certified students should complete requirements for the Bachelor of Science degree in Computer Science including: COSC 4340 Comparative Study of Programming Languages.
  - 2. Students who have already completed a baccalaureate degree, hold a secondary teaching certificate in another academic field, and/or seek a second teaching field should minimally complete the following courses or their equivalents:

COSC 1336: Programming Fundamentals	3
COSC 1136: Programming Fundamentals Lab	1
COSC 1337: The Object Oriented Paradigm	3
COSC 1137: The Object Oriented Paradigm Lab	1
COSC 2315: Computer Organization	3
COSC 2336: Data Structures and Algorithms	3
COSC 3315: Social and Professional Issues	3
COSC 3325: Algorithm Design and Analysis	3
COSC 3345: Computer Architecture	3
COSC 3145: Computer Architecture Lab	1
COSC 4340: Comparative Study of Programming Languages	3
MATH 2330: Discrete Structures	3

### **CNSS** Computer Security Certifications

The Department of Computer Science has been approved by the Committee on National Security Systems (CNSS) and the National Security Agency (NSA) as meeting the requirements of the CNSS 4011 and CNSS 4012 security standards. This accreditation confirms compliance with Federal Security Standards through the year 2014. Any UT Tyler student awarded these certificates will automatically meet federal employment requirements for the CNSS 4011 or 4012 certification. CNSS is a federal government entity under the U.S. Department of Defense that provides procedures and guidance for the protection of national security systems.

The CNSS 4011 standard consists of the fundamental security knowledge needed by an Information Systems Security professional. Students who successfully complete the following courses in their degree program will receive the CNSS 4011 certificate: COSC 2315, 4360, 4361, and 4362.

The CNSS 4012 standard consists of the security knowledge needed by a Chief Information Officer (Senior Systems Manager) in authorizing systems certified as security by a security manager. Students who successfully complete the following courses in their degree program will receive the CNSS 4012 certificate: COSC 4360, 4361, and 4362.

## Engineering

In support of the missions of the University and the College of Engineering and Computer Science, the degree programs in Civil, Construction Management, Electrical, and Mechanical Engineering are offered through the Department of Civil Engineering, Department of Electrical Engineering and the Department of Mechanical Engineering, respectively. The Civil, Electrical, and Mechanical Engineering Departments also offer Master of Science degrees. These engineering degree programs prepare students to enter the engineering profession and, subsequently, to develop interest and expertise in many areas within the profession.

Students learn the fundamentals of their chosen program with emphasis on critical thinking, communication skills, problem solving, design, and integrated systems, while also taking courses in mathematics, chemistry, physics, English, humanities, and social sciences. Graduates are prepared for practice as professional engineers. They have acquired the foundation for maintaining professional competence throughout their careers, and they have the skills and experiences needed to move quickly into leadership roles in today's engineering and construction environments.

Students who desire the option of further study at the graduate level are well prepared to continue their engineering education at the master's and doctoral level. And, in today's highly technological world, the Bachelor of Science degree programs in Civil Engineering, Construction Management, Electrical Engineering, and Mechanical Engineering provide an excellent core, when combined with appropriate preparatory electives, for studies in medicine, law, and other specialties.

#### **Cooperative Education Program**

The Cooperative (co-op) Education Program is offered as an educational enhancement to the Bachelor of Science in Civil Engineering, Bachelor of Science in Construction Management, Bachelor of Science in Electrical Engineering, and Bachelor of Science in Mechanical Engineering programs. To complete the Co-op Program, a student works full-time in approved progressive work assignments for at least three academic semesters prior to the student's senior year. (The three academic semesters or terms may include 12-week summer sessions.)

At any time after completing a minimum of all the freshman year course work, an engineering student with a cumulative GPA of at least 2.50 may apply to participate in the Co-op Program. A transfer student must complete at least one full-time academic semester at UT Tyler and must have a minimum cumulative GPA of at least 2.50 to qualify.

A co-op student alternates between full-time academic semesters and semesters of progressive full-time approved work assignments until the student has completed at least three work semesters. Alternatively, a co-op student may alternate between a year of full-time academic terms and a year of full-time approved work assignments. The full-time work assignments are a planned part of the co-op student's educational program; are with the same employer; and are progressive in complexity, responsibility, and pay. The student's senior year is spent in residence at the University with no further co-op work assignments.

During the student's full-time work terms, the student is considered a full-time student by the University, and the student registers for the appropriate co-op course from ENGR 3191 through ENGR 3196. The co-op courses carry one semester hour of credit and have requirements for the student to submit educational objectives, status reports, and a final technical report. The student is also required, in cooperation with the student's employer, to host a work site visit by a UT Tyler engineering faculty member responsible for the co-op course and to submit at the end of the work term a performance appraisal/evaluation by the employer.

Students enrolling in the Co-op Program gain the benefits of a planned progression of work experiences that complement and enrich their engineering studies on campus. Participants gain insight into the engineering and construction world, are able to apply their insights from actual practice to their studies, grow in understanding of their own interests and career objectives, and advance in professional maturity. All work assignments are in paid positions, and students are able to help finance their education while gaining professional experience.

## Department of Civil Engineering

#### Dr. Ronald W. Welch, Chair

Civil Engineering, one of the largest engineering branches, is a creative, demanding and rewarding profession. From the pyramids of Egypt to the exploration of space, civil engineers have always faced the challenges of the future – advancing civilization and improving the quality of life. Civil engineers design and manage the building of the world's infrastructure and thus affect the everyday life of every member of society. It would be difficult to imagine life without the many contributions of civil engineers to the public's health, safety, and standard of living. Civil engineering's contributions to daily life include modern transportation, clean water, and power generation.

Civil engineering involves the use of complex technology and a strong scientific, mathematical, and engineering knowledge base to creatively solve society's problems. Civil engineers then go beyond the science, math, engineering, technology, and problem solving to make the world a better place by serving in communities and by participating in the public policy process.

Today, civil engineers are designing complex systems for highway exchanges, major bridges, modern hospitals, water purification, theme parks, airports, and launch pads. In the future, civil engineers will be designing special rail beds for magnetic levitation trains and will be making Mars a hospitable habitat for humans. Civil engineering is also about community service, development, and improvement. It involves the conception, planning, design, construction, and operation of facilities essential to modern life, ranging from transit systems to offshore structures to space satellites. Civil engineers are problem solvers, meeting the challenges of pollution, traffic congestion, drinking water, energy needs, urban redevelopment, and community planning.

The Department of Civil Engineering offers programs leading to the Bachelor of Science in Civil Engineering, Bachelor of Science in Construction Management, and the Master of Science in Civil Engineering.

### Bachelor of Science in Civil Engineering Objectives

#### Mission

The faculty and staff provide the opportunity for civil engineering students to develop state-of-the-art engineering knowledge and skills through student-centered education and research. Teamwork, professionalism and the importance of life-long learning are hallmarks of our program. Students and faculty provide outreach through innovative civil engineering solutions to significant regional, national, and global issues.

#### Vision

The department will be a leader in civil engineering education through the integration of design in the curriculum. Upon graduation, our students will be able to excel in the global civil and environmental engineering community. We will be a recognized center for innovative civil engineering research and expertise that meets the needs of industry, government, and society.

#### **Program Educational Objectives**

- Graduates demonstrate the knowledge, skills, and attitudes necessary to become engineering leaders and assume responsibility for multidisciplinary engineering design; project construction, and asset management; and ethical decision making in professional practice.
- Graduates continue to grow intellectually and professionally through participation in professional society activities, continuing engineering education, graduate studies, and/or self study during their professional career.
- 3. Graduates demonstrate effective oral, written, and graphical communication skills to meet increasing professional demands.
- 4. Graduates become licensed professional engineers.

#### Program Educational Outcomes

#### Graduates:

- 1. Apply knowledge of traditional mathematics, science, and engineering skills, and use modern engineering tools to solve problems.
- 2. Design and conduct experiments, as well as analyze and interpret data in more than one civil engineering sub-discipline.
- 3. Design systems, components, and processes and recognize the strengths and areas for possible improvement of their creative designs within realistic constraints such as economic, political, social, constructability, sustainability, public health and safety, environmental, and ethical.
- 4. Work independently as well as part of a multidisciplinary design team.
- 5. Identify, formulate, solve, and evaluate engineering design problems using engineering models in the disciplines of structural engineering, transportation engineering, hydrology, construction management, and/or environmental engineering.
- 6. Analyze a situation and make appropriate professional and ethical decisions.
- 7. Demonstrate effective oral, written, and graphical communication skills.
- Demonstrate a commitment to learning and continued professional development outside the classroom, incorporate contemporary issues and historical perspectives during problem solving, and determine the impact of engineering solutions in a global and societal context.
- 9. Explain professional practice attitudes, leadership principles and attitudes, management concepts and processes, and concepts of business, public policy, and public administration.

# Bachelor of Science in Civil Engineering Requirements

#### Graduation Requirements

During a civil engineering student's first semester at The University of Texas at Tyler, a civil engineering faculty member is assigned as the student's academic advisor to work with the student in planning a program of study to complete degree requirements. Students are encouraged to meet with their advisor throughout the semester and are required to meet with their advisor prior to registering for the next semester or summer session.

To graduate with a Bachelor of Science in Civil Engineering degree, a student must

- 1. complete the general baccalaureate degree requirements for the university;
- complete the Civil Engineering curriculum requirements as shown below; with an average of 2.5 GPA on all courses taken in the College of Engineering and Computer Science, and
- 3. achieve a satisfactory score on the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) examination. The NCEES FE exam is offered twice each year in April and October. A senior may take the FE exam within one year of completing the BSCE curriculum. The FE exam may be taken more than once, and seniors will be encouraged to take the exam at the earliest opportunity.

#### Total Semester Credit Hours=128

#### Freshman Year

Second SemesterENGR 1304: Engineering Graphics I3ENGL 1302: Grammar & Comp II3MATH 2414: Calculus II4PHYS 2325: University Physics I3PHYS 2125: University Physics I Lab1Visual & Perf. Arts3Total17Sophomore YearFirst SemesterPOLS 2305: Intro. American Govt.3CENG 2336: Geomatics3CENG 2301: Statics3MATH 3404: Multivariate Calculus4PHYS 2126: Univ. Physics II3PHYS 2126: Univ. Physics II Lab1Total17Second Semester1CENG 2353: Civil Engr. Measurement3CENG 3306: Mechanics of Materials3ECON 2302: Dynamics3MATH 3305: Differential Equations3PHIL 2306: Introduction to Ethics3Total18	First Semester ENGR 1200: Engineering Methods ENGL 1301: Grammar & Comp I MATH 2413: Calculus I CHEM 1311: Gen. Chemistry I CHEM 1111: Gen. Chemistry I Lab POLS 2306: Intro. Texas Politics Total	$\begin{array}{r} 2\\ 3\\ 4\\ 3\\ 1\\ \underline{}\\ 16\end{array}$
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#### Junior Year

First Semester	
CENG 3434: Materials, Codes, Specs.	4
CENG 3310: Fluid Mechanics	3
MATH 3351: Prob. & Stats for Eng.	3
CENG 4339: Construction Mgt.	3
Additional Science Elective	3
Total	16
Second Semester	
CENG 3361: Applied Eng. Hydrology/lab	3
CENG 3351: Transp. Engineering Systems	3
CENG 3371: Intro. to Environ.	3
Engineering/lab	
CENG 3336: Soil Mechanics & Found.	3
Design/lab	
CENG 3325: Structural Analysis	3
Total	15

#### Senior Year

First Semester	
CENG 4351: Traffic Engineering/lab	3
CENG 4317: Struct. Steel Design	3
CENG 4371: Environ. Engineering Design	3
CENG 4115: Senior Design I	1
HIST 1301: United States History I	3
ENGR 4109: Senior Seminar	1
Total	14
Second Semester	
CENG 4315: Senior Design II	3
HIST 1302: United States History II	3
CENG 4341: Leadership, Business	3
CENG Elective	3
World or European Literature elective	3
Total	15

## Bachelor of Science in Construction Management Requirements

Total Semester Credit Hours = 120

A degree in Construction Management prepares graduates to administer the entire range of construction operations on a project, from start to finish. The construction business is the largest industry in the United States with approximately 7 million employees. Construction and related industries account for more than 8 percent of the nation's Gross Domestic Product. Managing the construction process requires an extensive understanding of the principles of construction management as well as autonomy, professionalism, and leadership skills. Construction Managers are responsible for motivating teams, facilitating subcontractors, and managing equipment and materials to produce a finished structure.

The Construction Management Program prepares graduates for professional careers and leadership roles in construction and constructionrelated industries. The Construction Curriculum focuses on Professionalism, Leadership, Ethics, and Autonomy. Students are expected to participate in Service Learning and Community Service during their academic career at The University of Texas at Tyler.

#### Objectives

Students completing the construction management major should be able to: A. Read construction plans & documents

- B. Execute construction specifications and building codes
- C. Reliably estimate construction projects by reading plans & specifications
- D. Schedule and plan construction projects

- E. Incorporate construction management, accounting, and financial principles to interpret and manage construction cost controls and the construction project
- F. Develop professionalism, autonomy, and leadership skills needed to excel in the construction industry as leaders and managers.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester ENGL 1301: MATH 1316: ART 1301: HIST 1301: PHYS 1301: PHYS 1101: Total Hours:	Grammar and Composition I Trigonometry Design I United States History I College Physics I College Physics Lab	16
Second Semester ENGL 1302: HIST 1302: Lab Science ENGR 1304 MATH 1324: Total Hours:	Grammar and Composition II United States History II Engineering Graphics I Math for Bus and Econ I	16
Sophomore Year		
First Semester POLS 2305: CENG 2336: ACCT 2301: ECON 2301: CMGT 2302: Total Hours:	US Government Geomatics Principles of Financial Accounting Principles of Economics I Intro. to Construction Mgmt.	15
Second Semester ENGL (choose one: POLS 2306: SPCM 1315: MATH 1342: CMGT2303: Total Hours:	2322, 2323, 2362, or 2363) Texas Government Fundamentals of Speech Statistics Construction Materials and Methods	15
Junior Year		
First Semester CMGT 3310: TECH 3348: FINA 3311: MANA 3311: CMGT 4310: Total Hours	Intro. Construction Structural Systems Construction Safety Principles of Finance Managing People in Organizations Construction Estimating	15
Second Semester CMGT 3315: CMGT 3320: CMGT 3365: GENB 3301: CMGT 4312: Total Hours	Construction Design Theory Soils & Foundations in Construction Mechanical and Electrical Systems Business Law and Social Resp. Advanced Estimating	15
Senior Year		
First Semester CMGT 4331: CMGT 4335: CMGT 4375: CMGT 4315: CENG 4199: Total Hours	Construction Scheduling Construction Law & Ethics Construction Administration Construction Systems Independent Study	13

Second Semester	
ENGR 4370:	Undergraduate Internship
CMGT 4313:	Applied Constr. Structural Systems
CMGT 4385:	Commercial Construction
or CMGT 4330:	Construction Equipment
CMGT 4395:	Construction Management Capstone
Elective	с I
Total Hours	15

## Bachelor of Science in Industrial Safety Requirements

#### Total Semester Credit Hours = 120

Industrial Safety is a field of study designed to prepare technical and/or management oriented professionals for employment as Environmental Health and Safety professionals in business, industry, education, and government. Industrial Safety is primarily involved with the management of comprehensive safety program elements within the private and public sector agencies and organizations. These elements may include OSHA and EPA compliance, analysis and control of hazards, workers compensation, emergency planning, safety training, facilities safety, employee wellness, accident investigation, and record keeping.

#### **Program Objectives**

- Α. To instill within the student the concepts of how to effectively reduce the cost associated with workplace incidents and injuries through the use of effective risk management control techniques.
- To become proficient in the analysis of risks and develop specific loss B. control processes to improve efficiency, productivity, quality and safety in the workplace.
- To correctly identify hazards and exposures which dictate C. implementation of required corrective actions to remediate and control risks to workers, property, equipment, tools and financial resources.
- To become familiar with using loss control trends, common analysis D. techniques reports to prepare comprehensive safety business plans for guiding an organization's incident prevention process to include compliance with state and federal safety/environmental laws.

To identify behavioral safety concepts that best provide holistic motivation approaches for creating an organizational culture which subscribes to a belief that all accidents and injuries are unacceptable and preventable by using a progressive system approach to safety.

#### Suggested Four-Year Curriculum

#### Freshman Year

First Semester ENGL 1301: Lab Science	Grammar and Composition I	
TECH 1301: TECH 1303: Total Hours:	Technology and Society Engineering Graphics`	16
Second Semester ENGL 1302: MATH 1314: HIST 1301: TECH 1330 Total Hours:	Grammar and Composition II College Algebra United States History I Fundamentals of Electronics	12
Sophomore Year		
First Semester Lab Science HIST 1302: POLS 2305: TECH 2311: TECH 2330:	United States History II Intro. American Gov. Mechanical and Fluid Systems Info. Tech. and Commun.	

16

Total Hours:

Second Semester		
PSYC 1301	Intro. to Psychology	
POLS 2306:	Intro. Texas Politics	
ENGL 2323:	English Literature	
TECH 2320:	Accident Prevention	
Total Hours:		

Statistics

Supervision

Industrial Safety

Fire Safety Systems

#### Junior Year

First Semester	
MANA 3311:	Org. Behavior and Leadership
Fine and Performing	Arts Elective
TECH 4310:	Total Quality Management
HRD 4333:	Human Relations
TECH 4330:	Occupational Safety and Health
Total Hours:	

Second Semester MATH 1342: TECH 4301: TECH 3344: TECH 4300: Elective Elective Total Hours:

# Senior Year

First Semester		
TECH 4370:	Undergraduate Internship	
TECH 4332:	Industrial Environmental Problems	
SPCM 1315:	Fundamentals of Speech	
MANA 3320:	Human Resource Management	
Elective	c	
Total Hours:		15
Second Semester		
TECH 4320:	Job Analysis Techniques	
TECH 4372:	Technology Capstone	
MANA 4335:	Industrial Relations	
TECH 4173:	Electronic Portfolio	
Elective		
Elective		
Total Hours:		16

# Department of Electrical Engineering

#### Dr. Mukul V. Shirvaikar, Chair

Electrical Engineering prepares individuals to use science, math, computers, and modern technology together with well developed critical thinking and problem-solving skills to analyze, design, construct, and maintain products and services related to electrical and electronic devices and systems. Some areas in which an electrical engineer may specialize are computers, communication systems, control systems, signal processing, microelectronics, and electrical power systems. Electrical engineers work in design, development, research, testing, manufacturing, and sales. With experience, many electrical engineers also serve as managers of large engineering projects, executives in major corporations, or as owners of their own companies. Whether developing and designing computers; space vehicle guidance, navigation, and control systems; satellite, optical and wireless communication systems; advanced medical diagnostic equipment and precision surgical tools; or large electric power systems, an electrical engineer has varied and growing opportunities for a challenging and rewarding career in today's high tech world.

The Electrical Engineering program is accredited by the ABET Engineering Accreditation Commission.

# Bachelor of Science in Electrical Engineering Objectives

#### **Mission Statement**

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The Department of Electrical Engineering supports the mission of the College of Engineering and Computer Science through its teaching, research, and community service activities. The Department is committed to excellence in undergraduate electrical engineering education and provides its students with a strong theoretical foundation, practical engineering skills, experience in communication and teamwork, and training in ethics and professional conduct. Graduates are prepared for successful engagement in industrial enterprises, research and development, graduate study, and practice as professional engineers. The Department also provides advanced studies in support of the graduate programs of the College of Engineering and Computer Science.

#### Program Educational Objectives

Educational objectives of the electrical engineering program are the knowledge, skills, and experiences that enable graduates to:

- 1. be involved in professional practice through the application of problem solving skills, using relevant technology in their field;
- 2. demonstrate professional leadership skills through effective communication, critical thought, creativity, and teamwork;
- 3. integrate engineering principles and social, business, and ethical issues in modern society in the process of decision making;
- 4. be professionally engaged in serving the needs of business, industry, government, and academic organizations;
- 5. grow professionally through activities such as graduate study, continuing education, professional licensure, and participation in technical societies.

#### Program Outcomes

Electrical Engineering students at the time of graduation are expected to:

- have the ability to apply knowledge of the fundamentals of mathematics, science, and engineering;
- 2. have the ability to use modern engineering tools and techniques in the practice of Electrical Engineering;
- 3. have the ability to analyze electrical circuits, devices, and systems;
- 4. have the ability to design electrical circuits, devices, and systems to meet application requirements;
- 5. have the ability to design and conduct experiments, and analyze, and interpret experimental results;
- 6. have the ability to identify, formulate, and solve problems in the practice of Electrical Engineering using appropriate theoretical and experimental methods;
- 7. have effective written, visual, and oral communication skills;
- 8. possess an educational background to understand the global context in which engineering is practiced, including:
  - a. knowledge of contemporary issues related to science and engineering;
  - b. the impact of engineering on society;
  - c. the role of ethics in the practice of engineering;
- 9. have the ability to contribute effectively as members of multidisciplinary engineering teams;
- 10. have a recognition of the need for and ability to pursue continued learning throughout their professional careers.

### Bachelor of Science in Electrical Engineering Requirements

#### Graduation Requirements

Upon admission to the Electrical Engineering major, an electrical engineering faculty member will serve as the student's academic advisor to work with the student in planning a program to complete degree requirements. Students are encouraged to meet with their advisor throughout the semester and are required to meet with their advisor prior to registering for the next semester.

To graduate with a Bachelor of Science degree in Electrical Engineering, the student must:

- 1. earn a grade of "C" or better in all courses used to meet degree requirements.
- earn a grade of "C" or better in any course that is a prerequisite for subsequent courses in the curriculum prior to taking a course that requires the prerequisite,
- 3. complete the general baccalaureate degree requirements of the University,
- complete the Electrical Engineering curriculum requirements specified in the following sections,
- take the Fundamentals of Engineering examination of the National Council of Examiners for Engineering and Surveying (NCEES), including the discipline-specific examination for electrical engineering.

The NCEES Fundamentals of Engineering (FE) examination is offered twice each year, in April and October, and may be taken more than once. A student should take the examination at least one semester prior to the semester in which the student plans to graduate. Students expecting to complete their course work for an engineering degree in May or August should take the FE exam in October of the preceding year. Those expecting to complete their course work in December should take the exam the preceding April. Detailed information about the FE exam content, exam schedule, registration for the exam, and review sessions is available through the Office of the Dean of Engineering and Computer Science.

#### Concentrations

In addition to the required Electrical Engineering courses, each student may choose technical electives to develop skills in a particular area. Students should select the area prior to completion of the junior year, and plan their course of study in order to satisfy the prerequisites for elective courses.

#### Computer Engineering Area

The Computer Engineering curriculum focuses on developing knowledge and practical skills in the design, development, and applications of computer systems including hardware, software, and hardware-software interaction. Computer Engineers require the knowledge and skills necessary to evaluate trade-offs and optimize the design of computer systems based on the attributes of both the hardware and the software. To meet the requirements for this concentration, a student must take the course Computer Architecture (EENG 4320), and two additional Computer Engineering elective courses.

#### Total Semester Credit Hours=128

#### Freshman Year

First Semester	
CHEM 1311: General Chemistry I	3
CHEM 1111: Gen. Chemistry I Lab	1
ENGL 1301: Grammar & Comp. I	3
MATH 2413: Calculus I	4
Engineering or Science elective 1	2
EENG 1301: Engineering the Future	3
Total Hours:	16

Second Semester PHYS 2325: University Physics I PHYS 2125: University Physics I Lab ENGL 1302: Grammar & Composition II MATH 2414: Calculus II COSC 1336/1136: Programming Fund and Lab EENG 2101: MATlab for Engineers Total Hours:	$ \begin{array}{r} 3\\1\\3\\4\\4\\1\\\hline16\end{array} $
Sophomore Year	
First Semester HIST 1301: U.S. History I MATH 3404: Multivariate Calculus PHYS 2326: University Physics II PHYS 2126: Univ. Physics II Lab EENG 3302: Digital Systems Visual and Performing Arts (Core Curriculum) Total Hours:	$ \begin{array}{r} 3\\4\\3\\1\\3\\3\\17\end{array} $
Second Semester HIST 1302: US History II MATH 3305: Differential Equations Economics 2 Humanities Elective (Core Curriculum) EENG 3304: Linear Circuits Analysis I EENG 3104: Linear Circuits Anal. I Lab Total Hours:	$     \begin{array}{r}       3 \\       3 \\       3 \\       1 \\       16     \end{array} $
Junior Year	
First Semester MATH 3203: Matrix Methods for Engineer, 3 MATH 3351: Probability and Statistics EENG 3303: Electromagnetic Fields EENG 3305: Linear Circuits Analysis II EENG 3306: Electronic Circuits I EENG 3106: Electronic Circuits I Lab	2 3 3 3 3 1
Total Hours:	15
Second Semester ENGR 4308: Automatic Controls EENG 4311: Signals and Systems EENG 3307: Microprocessors ENGR 3314: Design Methodology-Engr. EENG 4309: Electronic Circuits II EENG 4109: Electronic Circuits II Lab Total Hours:	$3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 1 \\ 16$
Senior Year	
First Semester POLS 2305: Intro American Gov't. EENG 4115: Senior Design I ENGR 4109: Senior Seminar EENG 4310: Electric Power Systems EENG 4312: Communications Theory Technical Elective Engineering/Science Elective 4 Total Hours:	3 1 1 3 3 3 1 1 7 1 1 3 3 1 1 1 3 3 3 1 1 1 1
Second Semester EENG 4315: Senior Design II POLS 2306: Intro to Texas Politics Technical Elective Technical Elective ENGL: World or European Lit Total Hours: 1 Selected from approved departmental list	3 3 3 3 3 15
2 Selected from ECON 2301 or ECON 2302	

<sup>3</sup> MATH 3315 can be substituted for MATH 3203

4 Course outside of Electrical engineering--junior/senior level, may be utilized towards a minor

# Department of Mechanical Engineering

#### Dr. Yueh-Jaw Lin, Chair

Mechanical Engineering is one of the broadest of the engineering disciplines, and mechanical engineers find themselves engaged in a wide variety of industrial and business operations. Computer-aided design and analysis, thermal and fluid systems, manufacturing processes and control, bioengineering, aerospace systems, and instrumentation are several of the many areas that require mechanical engineering skills. Graduates with bachelor's degrees in mechanical engineering work in all types of organizations, from large corporations to government offices to small consulting firms. Entry-level positions include engineering design, testing, manufacturing, maintenance, and sales. With experience, mechanical engineers may become managers of large engineering projects, plant managers, owners of their own firms, or executives in large corporations. The bachelor's degree also provides a solid foundation for graduate study.

The Mechanical Engineering program is accredited by the ABET Engineering Accreditation Commission.

# Bachelor of Science in Mechanic Engineering Objectives

#### **Mission Statement**

The Mechanical Engineering Department of The University of Texas at Tyler is committed to producing graduates who are sought after by employers and graduate schools in the region, state, and nation. In both the undergraduate and graduate programs the department stresses the development of strong professional knowledge, critical thinking, and communication skills. The faculty seeks to create and disseminate new knowledge in engineering and engineering education, and to be a source of expertise for industry and government, while maintaining a balance between education, research, and service.

#### **Program Educational Objectives**

Educational objectives of the mechanical engineering program are the knowledge, skills, and experiences that enable graduates to:

- 1. formulate and solve complex practical and theoretical engineering problems, while at the same time understanding business objectives and appreciating the social, economic, and ethical issues encountered in a modern global society
- 2. think critically and creatively, work effectively on interdisciplinary teams and communicate clearly in both technical and non-technical forums
- be professionally employed, serving the rapidly changing technological needs of industry or governmental organizations regionally in East Texas or throughout the state and nation
- 4. continue to grow professionally through activities such as pursuing formal graduate study, research, or continuing education; achieving professional licensure; and participating in technical societies.

#### **Program Outcomes**

Mechanical Engineering students at the time of graduation are expected to:

- 1. be able to apply science, mathematics, and modern engineering tools and techniques to identify, formulate, and solve engineering problems
- 2. be able to design thermal/fluid, mechanical, and electro-mechanical components or systems, individually or on interdisciplinary teams, and effectively communicate those designs in both technical and non-technical forums
- be able to collect, analyze, and interpret data from prescribed and selfdesigned experimental procedures and formally communicate the results
- 4. be able to apply a broad-based educational experience to understand the interaction of engineering solutions with contemporary business, economic, and social issues

- 5. recognize that ethical behavior and continuous acquisition of knowledge are fundamental attributes of successful mechanical engineering professionals
- 6. pass the Fundamentals of Engineering examination.

# Bachelor of Science in Mechanical Engineering Requirements

#### Graduation Requirements

Upon a student's admission to the Mechanical Engineering major, an engineering faculty member will serve as the student's academic advisor to work with the student in planning a program to complete degree requirements. Students are encouraged to meet with their advisor throughout the semester and are required to meet with their advisor prior to registering for the next semester.

To graduate with a Bachelor of Science degree in Mechanical Engineering, the student must:

- 1. earn a grade of "C" or better in all courses used to meet degree requirements,
- 2. complete the general baccalaureate degree requirements for the university,
- 3. complete the Mechanical Engineering curriculum requirements specified in the following sections,
- 4. pass the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering examination.

The NCEES Fundamentals of Engineering (FE) examination is offered twice each year, in April and October, and may be taken more than once. Students expecting to complete their course work for an engineering degree in May or August should take the FE exam in October of the preceding year. Those expecting to complete their course work in December should take the exam the preceding April. Detailed information about the FE exam content, exam schedule, registration for the exam, and review sessions is available through the Office of the Dean of Engineering and Computer Science.

#### Total Semester Credit Hours = 128

#### **Course Requirements**

#### Freshman Year

First Semester	
CHEM 1311: General Chemistry	3
CHEM 1111: Chemistry I Lab	1
ENGL 1301: Grammar & Comp. I	3
MATH 2413: Calculus I	4
Humanities Elective	3
ENGR 1200: Engineering Methods	2
Total Hours	16
Second Semester	
PHYS 2325: University Physics I	3
PHYS 2125: Physics I Lab	1
ENGL 1302: Grammar & Comp. II	3
MATH 2414: Calculus II	4
MENG 1201: Mechanical Engr. I	2
Visual and Performing Arts	3
Total Hours	16
Sophomore Year	

First Semester	
PHYS 2326: University Physics II	3
PHYS 2126: Physics II Lab	1
MATH 3404: Multivariate Calculus	4
MENG 2201: Mechanical Engr. II	4
MENG 2301: Statics (or CENG 2301)	2
MATH 3203: Matrix Methods (or MATH 3315)	2
Total Hours	15

Second Semester	
MATH 3305: Differential Equations	3
EENG 3304: Linear Circuits	3
MENG 3319 Materials & Manuf.	3
ECON 2302: Microeconomics (or ECON 2301)	3
MENG 2302: Dynamics (or CENG 2302)	3
Total Hours	15

#### Junior Year

First Semester MENG 3301: Thermodynamics I MENG 3306: Mechanics of Materials MENG 3310: Fluid Mechanics MENG 3303: Dyn. of Machinery MENG 3210: Mech. Engr. Lab I MATH 3351: Prob. & Stat. for Eng. Total Hours	3 $3$ $3$ $2$ $3$ $17$
Second Semester MENG 3304: Thermodynamics II MENG 3316: Heat Transfer MENG 3309: Mech. Systems Design MENG 3211: Mech. Engr. Lab II ENGR 3314: Design Methodology POLS 2306: Intro Texas Politics Total Hours	3 $3$ $2$ $3$ $-$ $17$
Senior Year	
First Semester MENG 4115: Senior Design I MENG 4311: Electro-Mech. Design MENG 4313: Thermal/Fluid Design HIST 1301: U.S. History I POLS 2305: Intro. American Gov't. ( ) Technical Elective ENGR 4109: Senior Seminar Total Hours	$     \begin{array}{c}       1 \\       3 \\       3 \\       3 \\       3 \\       1 \\       17     \end{array} $
Second Semester MENG 4315: Senior Design II ( )Technical Elective HIST 1302: U.S. History II ENGLWorld/European Lit. ( ) Technical Elective Total Hours	3 $3$ $3$ $3$ $15$

A list of courses from which the student may select appropriate electives should be obtained from the department chair.

# ENGINEERING AND COMPUTER SCIENCE COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

# Civil Engineering (CENG)

#### CENG 2301: Statics [TCCN: ENGR 2301]

Analysis of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions to include vectors; freebody diagrams; friction; centroids; centers of gravity; moments of inertia. **Prerequisites:** PHYS 2325; **Co-requisite:** MATH 2414.

#### CENG 2302: Dynamics [TCCN: ENGR 2302]

Analysis of kinematics and kinetics and particles, systems of particles, and rigid bodies. **Prerequisite:** CENG 2301 and MATH 2414

#### CENG 2336: Geomatics

Introduction to surveying including distance measurement, corrections, leveling, measurement of angles and directions, traverse adjustment, volumes, cross section and area computations, horizontal and vertical curves, and error theory. Methods and technologies such as Excel, MathCAD, global positioning system and geographic information systems used to manage data in surveying. Emphasis on the use of total stations. **Prerequisite:** ENGR 1304

#### CENG 2353: Civil Engineering Measurements

Principles and methods of measurement of loads, load effects, environmental variables, and performance of civil engineering systems. Lab exercises provide students with an introduction to sensors, basic electrical circuits, data acquisition systems, and data analysis methods to include computer programming used in civil engineering. Two hours of lecture and three hours of lab per week. **Prerequisite:** ENGR 1200.

#### CENG 3306: Mechanics of Materials

Stress and strain, uniaxially loaded members; normal and shear stresses; torsion; flexural behavior; beam deflections; buckling of columns; pressure vessels; combined loading; failure criteria; shear/moment diagrams. **Prerequisite:** CENG 2301.

#### CENG 3310: Fluid Mechanics

Basic concepts of a fluid and the fundamentals/applications of idea/real flow. Topics: fluid statics, conservation principles, Bernoulli, pipe flow, pump/turbines, momentum, drag, similitude, open channel flow. **Prerequisites:** MENG 2302 and MATH 3305.

#### CENG 3325: Structural Analysis

Introduction to structural requirements, structural systems and specification of loads; analysis of statically determinate and indeterminate structures using equations of equilibrium, moment distribution, and energy methods; determination of design forces in the structural components including shearing force and bending moment; and brief introduction to the direct stiffness method. Three hours of lecture per week. **Prerequisite:** CENG 3306 or MENG 3306.

#### CENG 3336: Soil Mechanics and Foundation Design

Mechanical and physical properties of soils and their relation to soil action in problems of engineering, such as classification, permeability, shearing strength, and consolidation. Introduction to foundation design. Two hours of lecture and three hours of laboratory per week. **Prerequisite:** CENG 2353 and CENG 3306 or MENG 3306

#### CENG 3351: Transportation Engineering Systems

Introduction to analysis and design of fundamental transportation system components, such as highways and traffic systems, individual vehicle motion, basic elements of geometric design, pavement design, vehicle flow and elementary traffic flow relations, capacity analysis, and traffic forecasting. Three hours of lecture per week. **Prerequisite:** MATH 3351 or ENGR 3301.

#### CENG 3361: Applied Engineering Hydrology and Hydraulic Design

Concepts covered are precipitation, hydrograph analysis, evapotranspiration, runoff, flood routing, open channel flow and design of stable channels, and hydraulic design. A design project involving hydrologic system analysis and design is assigned. Two hours of lecture and three hours of lab per week. **Prerequisite:** CENG 3310 or MENG 3310.

#### CENG 3371: Introduction to Environmental Engineering

Concepts covered are essentials of environmental engineering and the process materials and energy balance as a tool for understanding environmental processes and solving environmental engineering problems. Environmental engineering concepts must include the concept of sustainability and the process of waste minimization, conservation and resource management in a global community. **Prerequisite:** CHEM 1311/CHEM 1111

#### CENG 3434: Civil Engineering Materials, Codes, and Specifications

Physical properties of typical construction materials will be investigated including steel, Portland cement concrete, wood, and bituminous asphalt; classification of aggregates, concrete mix design, and field control and adjustment. Application of model building codes to commercial and industrial structures; nonstructural and structural plan review; fire codes, inspection techniques. **Prerequisites:** CENG 2353 and CENG 3306 or MENG 3306.

#### CENG 4115: Senior Design I

Problem definition, project planning and scheduling, follow-up and control techniques. Results in presentation and plan for senior capstone design project. Multidisciplinary teams will work on design problems defined in cooperation with representatives from engineering firms, industry, or government organizations when possible. Three hours of Design Studio Lab per week. **Prerequisite:** Department Chair approval.

#### CENG 4199-4399: Civil Engineering Independent Study

Civil Engineers are required to be creative, life-long learners who understand contemporary issues and how they influence civil engineering projects. An independent study course will require the CE students to tackle a real problem, teach themselves skills beyond what has been covered in the curriculum while studying and considering the current contemporary issues influencing possible solutions. **Prerequisite:** Department Chair approval

#### CENG 4311: Reinforced Concrete Design

Introduction to the design of reinforced concrete structural members; design of beams, one-way slabs, columns, and footings, with reference to the most recent ACI 318 design code and other supporting design documents. Development length provisions, design for serviceability, use of high-strength materials, composite construction. Introduction to precast/prestressed concrete. Three hours of lecture per week. **Prerequisites:** CENG 3325 and CENG 3434

#### CENG 4314: Advanced Structural Analysis

This course builds upon the material covered in CENG 3325 to develop a better understanding of structural behavior. Matrix analysis methods, including an introduction to finite elements, are developed as the basis for modern, computer-based structural analysis. These and other advanced analytical techniques are used to analyze and design trusses, beams, and frames. Course-work involves extensive use of the computer as an analytical tool. **Prerequisite:** CENG 3325. Co-listed with CENG 5314.

#### CENG 4315: Senior Design II

The senior design project, which was proposed and approved in CENG 4115, continues to completion. This capstone design project builds on previous course work, includes all stages of the design process, and takes into account a variety of realistic constraints such as manufacturability and sustainability; economic factors; and environmental, safety and reliability issues. Preparation and presentation of final oral and written reports are required. Nine hours of Design Studio per week. **Prerequisite:** CENG 4115.

#### CENG 4317: Structural Steel Design

Introduction to the design of structural elements in steel buildings, in particular the design of steel tension members, beams, columns, beam columns, and connections. Composite members and plate girders. Emphasis on the AISC-LRFD Specifications for steel design, with comparisons made where appropriate to ASD Specifications. Three hours of lecture per week. **Prerequisite**: CENG 3325.

#### CENG 4318: Design of Timber Structures

Introduction to the design of structural elements for timber buildings including tension and compression members, timber trusses, plywood decking, beamcolumns, bolted and nailed connections, diaphragms, shear walls, and columns; design of timber elements by allowable stress and strength design methods; introduction to construction techniques, materials and terminology used in timber design. **Prerequisite:** CENG 3325. Co-listed with CENG 5318.

#### CENG 4322: Structural Masonry Design

Introduction to the design of structural elements for masonry buildings including lintels, walls, shear walls, columns, pilasters, and retaining walls; design of reinforced elements of concrete or clay masonry by allowable stress and strength design methods; introduction to construction techniques, materials and terminology used in masonry. **Prerequisite:** CENG 3325. Co-listed with CENG 5322.

#### CENG 4328: Structural Fire Behavior

Course provides an overview of fire effects on building structures. Topics covered include: fire chemistry, behavior and development, heat transfer terminology and processes, fire modeling, heat transfer modeling, material properties at elevated temperatures, effects of insulation, and effects of fire on structures. The Eurocode approach to structural design for fire will be introduced. **Prerequisites:** CENG 3325, CHEM 1311/CHEM 1111 and CENG 4317 or CENG 4311. Co-listed with CENG 5328.

#### CENG 4330: Water Resources Planning and Management

The course provides students with the principles of analysis, decision-making, and problem solving required in managing water resources under relentless pressure from development, pollution, and climate change. It focuses on local and global problems, integrated water resources management, the water industry, water law, water security, natural systems protection, water use efficiency, and management tools. **Prerequisite:** CENG 3361. Co-listed with CENG 5330.

#### CENG 4339: Civil Engineering Construction Management

Introduction to construction planning and management to include planning, programming, design, bid, and construction, how commercial construction projects are planned and executed, project scope definition, construction estimating, scheduling, and management controls during construction, and engineering economics. Three hours of lecture. **Prerequisite:** ECON 2301 or ECON 2302

#### CENG 4341: Civil Engineers and Leadership, Public Policy, Business Practices, and Asset Management

Civil Engineers are required to be leaders of their communities as well as their firms. Leadership, public policy, business practices, and asset management are critical areas that a civil engineer must have skills in, albeit the skills that allow entry at the engineer in training level. This course will tie these required skills to tasks Civil Engineers are required to perform. Three lectures per week. **Prerequisite:** Department Chair approval.

#### CENG 4351: Traffic Engineering: Operations and Control

Introduction to traffic systems, flow characteristics, data collection, control of urban streets and freeways, operations of arterial streets, freeway, and networks, optimal signal timing design, capacity analysis using theoretical and experimental techniques, especially computer simulation. Introduction to current analysis and optimization tools for control device design/implementation. Two hours lecture and 3 hour lab. **Prerequisites:** CENG 3351, CENG 2336.

#### CENG 4354: Urban Transportation Planning

Overview of the four-step urban transportation planning process, estimation of the travel demand models of trip generation, trip distribution, mode choice, and traffic assignment, and the forecasting of travel patterns using the travel demand models, state-of-the-art approaches and transportation network analysis for evaluation of system alternatives. **Prerequisite:** CENG 3351. Co-listed with CENG 5354.

#### CENG 4355: Transportation Systems Management and Operations

Foundations of the transportation system management and operations, including arterial street systems and freeway systems. Principles of simulation of urban streets operations and traffic signal control and optimization, and freeway operations analysis and simulation using commercially available packages. **Prerequisite:** CENG 4351. Co-listed with CENG 5355.

#### CENG 4371: Environmental Engineering Design

Introduction to environmental engineering design to include techniques to address radiological hazards, human health protection, and limit the impact of traditional pollutants in the aquatic environments and releases into the atmosphere. Design of solid-waste management systems, basic air pollution control systems, and basic water and waste water treatment systems. **Prerequisite:** CENG 3371.

#### CENG 4381: Foundation Design

Relationship of local geology to soil formations, groundwater, planning of site investigation, sampling procedures, and determination of soil parameters. Analysis and design of shallow foundations, deep foundations, and earth retaining structures. Three hours of lecture per week. **Prerequisite:** CENG 3336.

## Computer Science (COSC)

#### COSC 1301: Computers in Society [TCCN: COSC 1301]

A general introduction to computers and their applications with emphasis on breadth of coverage. Topics include computer system components, terminology, and use of productivity tools such as word processing, spreadsheets, database, and Internet usage. Case study analysis of the social impacts of computerization and networking. Topics include computer ethics, crime, privacy, security, reliability, and vulnerability. Not for CS or CIS degree credit.

# COSC 1307: Introduction to Information Systems Software [TCCN: BCIS 1305]

Students in this course will develop a proficiency in the use of the common applications of a productivity suite like Microsoft Office. Applications covered will include Windows, word-processing, spreadsheets, database, presentations, e-mail and the HTML editors. No prior computer experience is required.

#### COSC 1308: Introduction to Visual BASIC

This course introduces the fundamental concepts of programming including data types, control structures, subprograms, arrays, and simple graphical user interfaces using the Visual BASIC language. **Note:** Cannot be applied toward a CS or CIS degree.

#### COSC 1310: Advanced Information Systems Software

This course enables students to improve their skills as knowledge workers. The emphasis is on personal productivity concepts through use of advanced features in computer software such as spreadsheets, databases, and presentation graphics. Prior knowledge of productivity software (i.e. databases, spreadsheets, and word processors) is strongly recommended.

# COSC 1336: Programming Fundamentals [with COSC 1136=TCCN: COSC 1436]

Introduces the fundamental concepts of procedural programming. Topics include data types, control structures, functions, arrays, files, secure programming, and the mechanics of running, testing, and debugging. The course also offers an introduction to the historical and social context of

# computing and an overview of computer science as a discipline. Concurrent enrollment in COSC 1136 required.

#### COSC 1136: Programming Fundamentals Laboratory

Laboratory sessions dealing with the fundamental concepts of procedural programming. Topics include data types, control structures, functions, arrays, files, secure programming, and the mechanics of running, testing, and debugging. Concurrent enrollment in COSC 1336 required.

# COSC 1337: The Object-Oriented Paradigm [with COSC 1137=TCCN: COSC 1437]

Introduces the concepts of object-oriented programming to students with a background in the procedural paradigm. Topics covered include a review of control structures and data types, the object-oriented programming paradigm, object-oriented design, an overview of programming language principles, simple analysis of algorithms, basic searching and sorting techniques, secure programming techniques, and an introduction to software engineering issues. Concurrent enrollment in COSC 1137 required. **Prerequisites:** COSC 1336/1136.

#### COSC 1137: The Object-Oriented Paradigm Laboratory

Experiments with software development for topics such as control structures and data types, the object-oriented programming paradigm, object-oriented design, an overview of programming language principles, simple analysis of algorithms, basic searching and sorting techniques, secure programming techniques, and an introduction to software engineering issues. Concurrent enrollment in COSC 1337 required.

#### COSC 2315: Computer Organization

Introduces the concept of computers and information systems by presenting the process of computation as a hierarchy of virtual machines, beginning with the hardware and moving upward through various levels of increasingly sophisticated software. **Prerequisites:** COSC 1336/1136, MATH 1314, 1324 or 2330.

#### COSC 2325: Foundations of Computer Information Systems

This course provides a thorough introduction to graphical user interface programming using visual programming tools. After this course students will be proficient in developing Windows programs. **Prerequisites:** COSC 1310, COSC 1336/1136.

#### COSC 2336: Data Structures and Algorithms [ TCCN: COSC 2336]

Topics include recursion, the underlying philosophy of object-oriented programming, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), secure programming techniques, the basics of algorithmic analysis, and an introduction to the principles of language translation. **Prerequisites:** MATH 2330, COSC 1337/1137.

#### COSC 3191, 3192, 3193: Computer Science Co-Op I, II, III

Once a student has been approved for the co-op program, students can sign up for the appropriate co-op course (3191 for the first semester, 3192 for the second semester, 3193 for the third semester) with the approval of the chair of computer science. A student will hold a full-time computer or information technology position for the entire semester of the co-op. During the semester of a co-op course a student will submit biweekly status reports and, in collaboration with the employer, submit at the end of the semester a performance appraisal/evaluation by the employer. Graded on a credit/no credit basis. **Prerequisites:** COSC 1336/1136, COSC 1337/1137, and permission of the chair of the Department of Computer Science.

#### COSC 3310: Internet and Web Applications

This course includes a detailed coverage of Internet protocols, Web site management, Web page design and e-commerce. The course examines the linkage of organizational strategy and electronic methods of delivering products and services in inter-organizational, national, and global environments. **Prerequisite:** COSC 2325.

#### COSC 3315: Social and Professional Issues in Computing

Introduction to the social and professional issues that arise in the context of computing. **Prerequisites:** COSC 1337/1137.

#### COSC 3325: Algorithm Design and Analysis

Introduction to formal techniques used to support the design and analysis of algorithms, focusing on both the underlying mathematical theory and practical considerations of efficiency. Topics include asymptotic complexity bounds, techniques of analysis, algorithmic strategies, and an introduction to automata theory and its application to language translation. **Prerequisite:** COSC 2336.

#### COSC 3331: E-Commerce Programming

The course deals with the technical aspects of e-commerce. Students will learn to design, build, and maintain a complete e-commerce website. Topics include: e-commerce modeling, designing, and implementing a website that meets user requirements, maintaining and setting web servers, multi-tiered web architecture, database servers, accessing remote databases, shopping cart fundamentals, commerce server, advertising on the web, e-cash and electronic payments, and Internet Security and encryption. Students will build their own projects. **Prerequisite:** COSC 3310.

#### COSC 3345: Computer Architecture

Introduces students to the organization and architecture of computer systems, beginning with the standard von Neumann model and then moving forward to more recent architectural concepts. Concurrent enrollment in COSC 3145 required. **Prerequisites:** COSC 2336 and COSC 2315.

#### COSC 3145: Computer Architecture Laboratory

Experiments in digital systems and computer architecture. Students will build and test logic circuits such as an adder, a multiplexer, arithmetic and logic unit, a counter, a shift register, and a memory unit. Students will also study hardware subsystems of a computer such as buses, central processing unit (CPU), and input-output systems. Concurrent enrollment in COSC 3345 required.

#### COSC 3355: Operating Systems

Fundamentals of operating systems design and implementation. Topics include an overview of the components of an operating system, mutual exclusion and synchronization, implementation of processes, scheduling algorithms, memory management, operating system security, and file systems. **Prerequisites:** COSC 3345/3145.

#### COSC 3365: Programming with Data, File and Object Structures

This course covers computer concepts, algorithm development, programming and program validation. It includes a special emphasis on the design and application of data and file structures. **Prerequisite:** COSC 2325.

#### COSC 3375: Analysis and Logical Design

This course introduces the systems development process. Topics covered include structured and object-oriented analysis and design, use of modeling tools and the methodological life cycle and project management. It includes the study of interpersonal skill development with clients, users, team members, and others associated with the development, operation and maintenance of systems. **Prerequisite:** COSC 2325.

#### COSC 3385: Database Design

This course covers information systems design and implementation within a database management system environment. Students will design and construct a system using database software to implement the logical design. **Prerequisites:** COSC 3365 and COSC 3375.

#### COSC 4309: Design of Modern Information Systems

Introduction to prototyping and computer-aided software engineering. This course will provide a detailed study of advanced topics in information systems software including system libraries, database design, and distributed software. A complete information system will be developed from various software components. **Prerequisites:** COSC 3310, COSC 1337/1137, COSC 3385.

#### COSC 4315: Information and Knowledge Management

The investigation of how information is a unifying theme within a range of issues in computer science, including database systems, artificial intelligence, human-computer interaction, multimedia systems, and data communication. **Prerequisite:** COSC 2336.

#### COSC 4325: Data Communications and Computer Networks

Study of problems and limitations associated with interconnecting computers by communication networks. OSI reference model, architecture of circuits, message and packet switching networks, network topology, routing, flow control, capacity assignments, protocols, coding and multiplexing. **Prerequisite:** COSC 2315.

### COSC 4327: UNIX Shell Programming

Introduction to programming in the UNIX Shell; directory structure and file manipulation, built-in functions, control structures, utilities, and sublanguages. **Prerequisite:** COSC 2336.

#### COSC 4335: Artificial Intelligence

Survey of current artificial intelligence technologies: game playing, theorem proving, pattern recognition, searching algorithms, knowledge representation, neural networks, fuzzy systems, and heuristic programming. **Prerequisite:** COSC 2336.

#### COSC 4336: Software Development

Provides an intensive, implementation-oriented introduction to the softwaredevelopment techniques used to create medium-scale interactive applications, focusing on the use of large object-oriented libraries to create well-designed graphical user interfaces. Topics include event-driven programming, computer graphics, human-computer interaction (HCI), and graphical user interfaces. **Prerequisite:** COSC 2336.

#### COSC 4340: Comparative Study of Programming Languages

Introduction, analysis, and evaluation of the important concepts found in a variety of programming language paradigms; formalisms useful in specifying language syntax and semantics; programming language paradigms including algorithmic, functional, logic, object-oriented, visual, etc. **Prerequisite:** COSC 2336.

#### COSC 4345: Computer Graphics

Graphics hardware, software, and applications. Data structures for graphics, graphic languages, computer-aided design, and three-dimensional graphics. **Prerequisite:** COSC 2336.

#### COSC 4352: Data Mining

The course deals with knowledge discovery from databases (KDD). Topics covered in the course include data warehouse, model fitting, classification, prediction, clustering, market basket analysis, extracting knowledge from data models, and data visualization techniques. **Prerequisite:** COSC 2336.

#### COSC 4356: Computer Vision

The course deals with extracting meaningful descriptions of physical objects from images. Topics covered include computer vision fundamentals, preprocessing techniques, feature extraction, supervised classifiers, unsupervised classifiers, and computer vision applications. **Prerequisite:** COSC 2336.

#### COSC 4360: Net-Centric Computing

Introduces the structure, implementation, and theoretical underpinnings of computer networking and the applications that have been enabled by that technology. **Prerequisite:** COSC 3355.

#### COSC 4361: Computer Security Management

This course will cover the techniques used to secure and manage computers, computer networks and enterprise computer systems. Topics covered will include security policies, computer network management, and disaster recovery. Special emphasis will be given to designing, deploying and managing complete security systems. **Prerequisite**: COSC 2315.

#### COSC 4362: Computer Security

This course will give a complete coverage of cryptography, network protocols and their use in computer security. This will include an overview of symmetric and asymmetric cryptographic algorithms and their use for authentication, email and e-commerce. Network security protocols covered will include Kerberos, SET and SMIME. **Prerequisites:** COSC 2336, and COSC 4360 or COSC 4325.

#### COSC 4370: Undergraduate Internship Program

An 8- to 16-week program providing a new learning experience in a computer or information technology environment. A written report describing the activities and accomplishments of the student during the internship is required at the conclusion of the internship period. May be repeated once for credit. A maximum of three credit hours may be applied toward the undergraduate degree. **CR/NC only. Prerequisites:** COSC 1337/1137.

#### COSC 4375: Information Systems Design Project

An integrated perspective of the problems in today's information systems environment, concentration on contemporary design, methodologies, and considerations unique to users of computers and information systems. **Prerequisites:** GENB 3301 or COSC 3315, COSC 1337/1137, COSC 3385.

#### COSC 4377: Compiler Techniques

Characteristics of the compiling process, syntax directed compiling, symbol table construction and searching, top down and bottom up methods, formal grammars, and a formalization of syntax. **Prerequisites:** COSC 2315 and COSC 2336.

#### COSC 4381: Seminar in Computer Science

This course is designed to study current trends in computer science. **Prerequisite:** Junior or Senior classification in computer science or computer information systems.

#### COSC 4385: Database Management Concepts

Database system architecture; file structures for databases, including indexing, hashing, and B+ trees, the relational model and algebra; the SQL database language; alternative database systems (network, hierarchical, object-oriented, object-relational, logical implementation, temporal, etc.), conceptual data modeling including Entity-Relationship data modeling; advanced data modeling concepts; functional dependencies, basic normalization, and database security management. **Prerequisite:** COSC 2336.

#### COSC 4387: Computer Performance Evaluation

Discrete and continuous simulation of dynamic systems. Topics include: simulation of probabilistic systems; mathematical models of real systems; system classifications; random number generators; simulation languages; single queue and queue networks. Workloads, benchmarks, performance measurement techniques, and case studies will be used in system capacity planning, hardware selection and upgrade, and performance tuning. **Prerequisites:** COSC 2336, COSC 3345/3145.

#### COSC 4199 - 4399: Independent Study

Independent study in specific areas of computer science not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of department chair.

#### COSC 4395: Capstone Project

This course offers students the opportunity to integrate their knowledge of the undergraduate computer science curriculum by implementing a significant software system as part of a programming team. **Prerequisites**: COSC 3315, COSC 3325, COSC 4315, COSC 4336, COSC 4360, COSC 4385.

# Construction Management (CMGT)

#### CMGT 2302: Introduction to Construction Management

Characteristics of the construction industry; types of construction companies; contracts; people involved in a project, their responsibilities and interrelationships; ethical conduct, evolution of a project; interpreting working drawings; construction bonds; contract documents.

#### CMGT 2303: Construction Materials and Methods

Materials, methods and sequences of the construction process; emphasis on design, specification, purchase and use of concrete, steel, masonry and wood. An understanding of the uses of construction materials.

#### CMGT 3310: Intro to Construction Structural Systems

The description of forces, moments, and couples acting on stationary structures, equilibrium in 2/3-D; free-body diagrams; centroids and moments of inertia; stress and strain; uniaxially loaded members; Torsion. **Prerequisite**: MATH 1316 and PHYS 1301/PHYS 1101

#### CMGT 3311: Construction Estimating

Systems approach to determining required quantities of construction materials; quantification of various types of foundation systems, structural systems and building envelope systems; excerpts of contract documents from a variety of different building projects.

#### CMGT 3312: Advanced Estimating

Quantification and pricing of direct field costs and general condition costs from construction documents; the preparation of complete lump sum bid package ready for project execution; utilization of complete set of contract documents required. **Prerequisite:** CMGT 3311

#### CMGT 3315: Construction Design Theory

The principles flexure and shear, deflections, buckling are used to consider design/build construction including building systems, building codes, criteria and selection, economic feasibility, value engineering, customer control, and value-added construction services as well as an introduction to Building Information Modeling BIM. **Prerequisite:** CMGT 3310

#### CMGT 3320: Soils and Foundations in Construction

Introduction to soil types found on construction projects; properties and classification of soil, embankment control, dewatering, excavation supports, foundations, piers, and pilings. **Prerequisite:** CMGT 3310

#### CMGT 3365: Mechanical and Electrical Systems

Mechanical and electrical systems with a major emphasis on the estimate and installation, design and control of the electrical, heating, ventilation and cooling system, site planning and acoustical treatments. **Prerequisites**: PHYS 1301/PHYS 1101

#### CMGT 4313: Applied Construction Structural Systems

Structural principles applied to the design and construction of architectural reinforced concrete structures, reinforced masonry structures, and other selected topics. Students build projects utilizing a Service Learning Project. **Prerequisite:** CMGT 3315

#### CMGT 4315: Construction Systems

Application of statics and strength of materials for construction of architectural timber and steel buildings with computer analysis and design of specific topics. **Prerequisite:** CMGT 3315

#### CMGT 4330: Construction Equipment and Methods

Principles of managing construction equipment including: selection, operation and safety; development of skills necessary to choose an equipment mix that yields maximum productivity and best value. **Prerequisite:** CMGT 3311

#### CMGT 4331: Construction Scheduling

An introduction to construction project management scheduling covering concepts of project selection and scheduling, utilizing the estimate to predict the schedule, scheduling subcontracting, cost controls, project documentation, construction bonds, insurance, payments and the elements of close out; development of professional communication skills through student prepared multi-media presentations. **Prerequisite**: CMGT 3311

#### CMGT 4335: Construction Law and Ethics

Introduction to basic contract and tort issues and their application in the construction industry; delineation of the various types of contracts and remedies available to parties involved in a construction project; additional related topics including bidding, delays, mechanics liens, site conditions, warranties and the Uniform Commercial Code as it relates to the construction industry. **Prerequisite**: GENB 3301

#### CMGT 4375: Construction Administration and Economics

Project planning, cost controls, and construction related financial documents including: schedule of values, labor and operations cost reports, income statements, balance sheets and construction budgets; emphasis on the development of techniques required to ethically and effectively monitor the financial aspects of a construction project. **Prerequisite:** FINA 3311

#### CMGT 4385: Commercial Construction

A senior course for students preparing to enter the commercial construction sector; project management of commercial construction projects, including: aspects of design, bidding/estimating. Presentation, value engineering, contracts/negotiation, subcontractor relations, cost controls, management during construction, close out, and post-construction requirements. **Prerequisite**: CMGT 3311

#### CMGT 4395: Construction Management Capstone

A senior capstone course with a significant Service Learning Project for students preparing to enter all sectors of the construction industry; integration of all construction management principles learned are put to use in the delivery and management of a cohesive community service project. **Prerequisite:** Department Chair approval

# Electrical Engineering (EENG)

#### EENG 1301: Engineering the Future

An introduction to the electrical engineering profession, disciplines, and careers. Covers basic principles of electric circuits, power systems, electronics, communications, and computer engineering. Also, familiarization with electrical engineering tools, software packages and equipment. Team design project, integrated weekly lab. Two hours of lecture and three hours laboratory each week.

#### EENG 2101: MATLAB for Engineers

An introduction to engineering problem solving; Matlab environment; Matlab functions; matrix computations; graphing and plotting data; numerical techniques. One hour of lecture in integrated lab.

#### EENG 2201: Programming for Engineers

Introduction to C programming; structure program development in C, program control, C functions, arrays. Pointers, characters and strings, formatted input/output; C structures, unions, bit manipulations and enumerations; file processing.; data structures; preprocessor. Introduction to object-oriented programming in C++ and JAVA. Engineering application examples. Two hours of lecture with integrated lab. **Prerequisite:** MATH 2413.

#### EENG 3104: Linear Circuits Analysis I Lab

Introduction to principles and operation of basic laboratory equipment; engineering report preparation; design and implementation of experiments based on DC and AC circuit theory, network theorems, time and frequency domain circuit analysis. One three-hour laboratory per week. **Prerequisite or Co-requisite:** EENG 3304.

#### EENG 3106: Electronics Circuits Analysis I Lab

Circuit applications of operational amplifiers; circuit effects of non-ideal characteristics of operational amplifiers; diode characteristics; diode circuits and applications; transistor biasing (bipolar junction transistors and field effect transistors); low frequency transistor amplifier design. One three-hour laboratory per week. **Prerequisite or Co-requisite:** EENG 3306.

#### EENG 3302: Digital Systems

Boolean algebra, logic gates; number systems and codes; combinational logic; sequential logic; design of logic circuits; analog-digital interface; memory devices. Two hours of lecture and one three-hour lab per week.

#### EENG 3303: Electromagnetic Fields

Vector analysis; static electric fields; steady electric currents; static magnetic fields; time varying fields and Maxwell's equations; plane electromagnetic waves; transmission lines; introduction to waveguides; introduction to antennas. Three hours of lectures per week. **Prerequisites:** MATH 3404, MATH 3305, and PHYS 2326/2126.

#### EENG 3304: Linear Circuits Analysis I

Basic circuit elements (resistance; inductance, mutual inductance, capacitance, independent and controlled voltage and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; dc analysis; introduction to operational amplifiers; complex numbers; sinusoidal steady-state ac circuit analysis; first and second-order circuits; transient analysis of first-order circuits. Three hours of lecture per week. **Prerequisite:** EENG 1301. Pre-or **Corequisites:** MATH 3305 and PHYS 2326/2126.

#### EENG 3305: Linear Circuits Analysis II

Laplace transform and its application to circuit analysis and design; generalized transient response; convolution in time and frequency domain; transfer functions; frequency response and Bode plots; frequency selective circuits - passive and active filter design; Fourier series; Fourier transform; two-port networks; balanced 3-phase ac circuits. Three hours of lecture per week.

# **Prerequisites:** EENG 3304, MATH 3305, MATH 3404, and COSC 1336/1136.

#### EENG 3306: Electronic Circuit Analysis I

Generalized amplifier models; two-port networks applications of operational amplifiers; non-ideal characteristics of operational amplifiers; electrical characteristics, small-signal models and applications of diodes; bipolar junction transistors, and FETS; amplifier analysis and design; limitations of small-signal models. **Prerequisites:** EENG 3304, and CHEM 1311/1111.

#### EENG 3307: Microprocessors

Microprocessor architecture, programming and interfacing. Introduction to assembly language programming; microcomputers, microcontrollers, instruction set, chip interfacing, addressing modes, interrupts, input/output, communication. Three hours of lecture per week with integrated laboratory sessions. **Prerequisites:** EENG 3302 and COSC 1336/1136.

#### EENG 4109: Electronic Circuit Analysis II Lab

Structure of a simple operational amplifier; active filters; feedback concepts and oscillators; small-signal analysis; introduction to nonlinear electronic circuits; transfer characteristics of CMOS digital circuits; introductory LabVIEW programming. One three-hour lab per week. **Prerequisite or Co-requisite:** EENG 4309.

#### EENG 4110: Electric Power Systems Lab

Electric power circuit measurements; transformers; synchronous, induction, and DC machine measurements, performance, and analysis. One three-hour laboratory per week. **Prerequisite or Co-requisite:** EENG 4310.

#### EENG 4115: Senior Design I

The goal establishment, planning and proposal phases of a capstone design project required of all seniors in Electrical Engineering. Includes the selection of a suitable project, an analysis of the design problem, the planning required to reach the desired goal, and the preparation of project preliminary design document defined in cooperation with representatives from industry when possible. Three hours of Design Studio Lab per week. **Prerequisites:** ENGR 3314, EENG 4309, and EENG 4109.

#### EENG 4302: Instrumentation and Measurement Systems

An introduction to instrumentation and measurement systems. Generalized instrument characteristics, signal condition, and sensors for measurement of various physical quantities. Three hours of lecture per week. **Prerequisite or Co-requisite:** EENG 4309.

#### EENG 4309: Electronic Circuits Analysis II

CMOS digital circuits; structure of operational amplifiers; feedback concepts; oscillators; small-signal analysis; load-line analysis; introduction to nonlinear electronic circuits. Three hours of lecture per week. **Prerequisites:** EENG 3305 and EENG 3306, 3106.

#### EENG 4310: Electric Power Systems

Magnetic circuits; principles of electromechanical energy conversion; transformers; induction motors; synchronous machines; direct current (DC) machines; fundamentals of power system modeling; introduction to power flow analysis. Three hours of lecture per week. **Prerequisites:** EENG 3303 and EENG 3305.

#### EENG 4311: Signals and Systems

Types of signals; types of systems; properties of systems; convolution; Fourier series, Fourier transforms; Laplace transforms; Difference equations; Z-transform; Discrete-time systems; applications and design concepts. Three hours of lecture per week. **Prerequisite:** EENG 2101 and EENG 3305.

#### EENG 4312: Communications Theory

Signals, systems, and analog modulation techniques; effects of noise in modulation systems, signal-to-noise ratio; digital data transmission; probability of error. Three hours of lecture per week. **Prerequisite:** EENG 4311. **Prerequisite or Co-requisite:** MATH 3351.

#### EENG 4315: Senior Design II

The senior design project, which was begun in EENG 4115, continues to completion. This capstone design project builds on previous course work,

includes all stages of the design process, and takes into account a variety of realistic constraints such as manufacturability and sustainability; economic factors; and environmental, safety, and reliability issues. Preparation and presentation of final oral and written reports are required. Nine hours of Design Studio Lab per week. **Prerequisite:** EENG 4115.

#### EENG 4316: Digital Control Systems

Sampling; Z-transform; stability; frequency response; root locus; state variables in discrete time; controllability; observability; state variable feedback. Extensive use of computer programs for homework and in a design project. Three hours of lecture per week. **Prerequisite:** ENGR 4308.

#### EENG 4317: Power Electronics Design and Applications

The use of solid state components in power systems; rectifying devices; diode circuits and rectifiers; controlled rectifier circuits; AC voltage controllers; thyristor commutation techniques; DC choppers; speed torque characteristics of motors and loads; starting, braking and transient analysis of electric motors; introduction to HVDC. Three hours of lecture per week. **Prerequisite:** EENG 4309. **Prerequisite or Co-requisite:** EENG 4310.

#### EENG 4318: Applied Electromagnetic Theory

Introduction to guided waves and to numerical techniques in electromagnetics; applications of Maxwell's equations and electromagnetic wave phenomena to radiation, design of antennas, transmission lines and wave guides. Three hours of lecture per week. **Prerequisite:** EENG 3303.

#### EENG 4319: Power Systems Analysis and Design

Transmission line modeling; transformer modeling; the per-unit system; generator modeling; power flow analysis; economic operation of power systems; power system stability; symmetrical components; fault analysis and sequence networks; power system protection. **Prerequisite:** EENG 4310.

#### EENG 4320: Computer Architecture and Design

Introduction to computer architecture, RISC, CISC and VLIW processors, data path, control, ALU; pipelining, memory, cache, I/O, digital logic, micro architecture, instruction sets, addressing modes; operating systems, virtual memory, processes, assembly language. **Prerequisite:** EENG 3307.

#### EENG 4321: Microchip Design

The design and fabrication of integrated circuits. Analog and digital circuits, passive components, wafer and chip manufacturing. Three hours of lecture per week. **Prerequisites:** EENG 3302 and EENG 3306.

#### EENG 4322: Random Signal Analysis for Engineers

Probability, random variables, random signals, random vectors, random sequences, noise, response of linear systems to random inputs, introduction to random processes, correlation functions.

#### EENG 4325: Real Time Systems

Basic Real-Time Concepts; Computer Hardware; Languages Issues; Real-Time Kernels; Intertask Communication and Synchronization; Real-Time Memory Management; The Software Life Cycle; System Performance Analysis and Optimization; Realiability, Testing, and Fault Tolerance; Hardware/Software Integration; Integrated lab. **Prerequisite:** EENG 3307.

#### EENG 4330: Solid State Devices

Introduction to the operation and fabrication of solid state electronic devices; Principles describing charge transport in semiconductors, standard fabrication methods for diffusion, oxidation and lithography; Electrical models for diodes, bipolar junction and field effect transistors. **Prerequisite:** EENG 3303. **Prerequisite or co-requisite:** EENG 4309.

# Engineering (ENGR)

#### ENGR 1200: Engineering Methods

An introduction to the engineering profession, technical communication, and engineering design. Emphasis on writing laboratory reports, including data analysis, business correspondence, technical papers and a design report. Additional emphasis on presentation skills. Introduction to design methodology and team-based project activities. One hour of lecture and three laboratory hours per week.

#### ENGR 1304: Engineering Graphics I

Intro to computer-aided drafting using CAD software to generate 2- and 3dimensional drawings based on the conventions of eng graphical communication; to include spatial relationships, multi-view projections/sectioning, dimensioning, graphical presentation of data, and computer graphics.

#### ENGR 3301: Probability and Statistics for Engineers

Fundamentals of probability and statistics with relevant engineering applications. Random variables, discrete and continuous probability distributions, statistical inference, parameter estimation, regression analysis, design of experiments, and model verification. Three hours of lecture per week. **Prerequisites:** MATH 2414.

#### ENGR 3191 - 3196: Engineering Co-Op I - VI

First (For ENGR 3191 and second, third, fourth, fifth, sixth for ENGR 3192-3196, respectively) engineering cooperative education work experience. Fulltime engineering position for length of the academic term. Requirements include submission of educational objectives for the work term, biweekly status reports, and a final technical report. In collaboration with the employer, the student hosts a work site visit by the instructor and submits at the end of the work term a performance appraisal/evaluation by the employer. **Prerequisite:** Approval for participation in Engineering Cooperative Education. Graded on a credit/no credit basis.

#### ENGR 3314: Design Methodology in Engineering

An overview of the design activity in engineering. Topics include the product design process; project planning; quality function deployment; design specification; concept generation and selection; system and subsystem design. Also, an introduction to engineering economics and its application to the design process. Design team projects. Three hours of lecture per week. **Prerequisite:** Junior standing in Engineering.

#### ENGR 4109: Senior Seminar

Speakers from within the university and from outside organizations address professional ethics, organizations, and licensure, necessity for life-long learning, environmental and political constraints, engineering in a global context, social responsibilities, leadership, and the engineer's role in business and in society. Each student will develop a resume and professional development plan to follow after graduation. Each student will have an opportunity to develop a testing and study strategy for the Fundamentals of Engineering Exam and will have access to review materials and the opportunity to attend optional review sessions. One hour of lecture per week. **Prerequisite:** ENGR 3314 or senior standing with departmental approval.

#### **ENGR 4306: Engineering Economics**

Engineering decision making; cash flow equivalents, present worth analysis, rate of return, cost to benefits ratio, payback; effects of inflation, depreciation and tax rates; introduction to project management. Three hours of lecture per week. **Prerequisites:** MATH 2414, ECON 2301 or 2302.

#### ENGR 4308: Automatic Controls

Introduction to automatic control systems; mathematical models of physical systems; block diagrams and signal flow graphs; transient and steady state responses; PID controllers; stability of linear feedback systems; root-locus and Routh's criteria; frequency response methods: polar, Nyquist and Bode plots; stability margins; state-variable formulation. **Prerequisites:** (EENG 2101 and EENG 3305) or (EENG 3304, MENG 3301 and MATH 3305).

#### ENGR 4310: Simulation and Optimization

System modeling; construction of computer simulations of complex systems; optimization techniques; linear programming. Three hours of lecture per week. **Prerequisites**: MATH 3404, MATH 3305, successful completion of a structured programming language course.

#### ENGR 4311: Process Control and Automation

The use of controls in the process industry and in automation; measurement of variables, controller types, final elements, application of controllers, application of programmable logic controllers, ladder logic, general instrumentation design and practice. Three hours of lecture per week. **Prerequisites:** Concurrent enrollment in or completion of MENG 4311 or ENGR 4308.

#### ENGR 4312: Transducer Design

Theory and design of sensors, transducers and signal conditioners for force, strain, temperature, displacement, flow, acceleration, optical and chemical phenomena measurements. Three hours of lecture per week with limited integrated laboratory sessions and a required student design project. **Prerequisite:** EENG 3304.

#### ENGR 4326: Numerical Methods in Engineering

A basic exploration of the numerical methods used in the solution and analysis of engineering problems. Focus will be given to linear systems, ordinary differential equations, and partial differential equations. Three hours of lecture per week. **Prerequisites:** MATH 3305, MATH 3203 or MATH 3315 and COSC 1336/1136.

#### ENGR 4370: Undergraduate Internship

An 8- to 16-week program providing for a learning experience in an engineering environment. A written report of the experience is required at the conclusion of the internship period. May be repeated once for credit. A maximum of three credit hours may be applied toward the undergraduate degree. **Prerequisite:** Consent of the chair of the student's department.

#### ENGR 4395: Undergraduate Research

Directed engineering research involving a problem of mutual interest to the student and a faculty member. An oral presentation and a written report of the research results are required at the conclusion of the course. May be repeated once for credit. A maximum of three credit hours may be applied toward an undergraduate degree. **Prerequisite:** Consent of the chair of the student's department.

#### ENGR 4199 - 4399: Independent Study

Independent study in a specific area of engineering not covered by an organized undergraduate course. A maximum of three credit hours may be applied toward the undergraduate degree. **Prerequisite:** Consent of the chair of the student's department.

# Engineering and Computer Science (CECS)

#### CECS 1300 History of Modern Engineering and Computer Science

An exploration of the history of modern engineering and computer science and its impact in today's world. Students will analyze critical questions in the development of technology. They will develop an understanding of the design process and explore ethical concerns related to technological advances. Students will work individually as well as in teams, developing critical thinking, writing and verbal skills. **Prerequisites:** none.

# Mechanical Engineering (MENG)

#### MENG 1201: Mechanical Engineering I

An introduction to CAD-based engineering design graphics, including spatial visualization, projection theory and parametric, feature-based, solid modeling techniques. Both skill development and project oriented laboratory sessions. Team based semester-long mechanical engineering design project. One hour of lecture and three hours of laboratory per week. Prerequisite: ENGR 1200.

#### MENG 2201: Mechanical Engineering II

An introduction to computer based problem solving in mechanical engineering. Excel, Mathcad and Matlab software tools are used for data analysis, equation solving, plotting and graphing, matrix operations, and an introduction to object oriented programming. One hour of lecture and three hours of laboratory per week. **Prerequisite:** MATH 2413.

#### MENG 2301: Statics [TCCN: ENGR 2301]

Analysis of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions to include vectors; freebody diagrams, friction; centroids/center of gravity; moments of inertia. Students may not count both MENG 2301 and CENG 2301 for credit. Prerequisites: MATH 2414 and PHYS 2325.

#### MENG 2302: Dynamics [TCCN: ENGR 2302]

Analysis of kinematics and kinetics of particles, systems of particles, and rigid bodies. Students may not receive credit for both MENG 2302 and CENG 2302. **Prerequisite:** CENG 2301 or MENG 2301 and MATH 2414.

#### MENG 3210: Mechanical Engineering Laboratory I

Experimental measurement of electromechanical systems. Sensors for measuring Strain, Force, Pressure, Displacement, Acceleration, and Temperature will be introduced as well as data acquisition and signal processing techniques. Student teams will design, analyze and document an experimental procedure. All procedures will result in a professional quality laboratory report. One hour of lecture and three hours of laboratory per week. **Prerequisites:** ENGR 1200 or completion of a technical writing course, MENG 2201, PHYS 2326, PHYS 2126.

#### MENG 3211: Mechanical Engineering Laboratory II

Introduction to basic Thermal/Fluid sciences laboratory procedures and practices with uncertainty analysis. Experimental topics to include fluid flow, heat exchanger basics, and basics of refrigeration. Student teams will design, analyze and document an experimental procedure. All procedures will result in a professional quality laboratory report. One hour of lecture and one three-hour lab per week. **Prerequisites**: MENG 3210; **Co-requisites**: MENG 3309, MENG 3316.

#### MENG 3301: Thermodynamics I

Properties; heat and work; first and second laws; thermodynamic processes; Carnot heat engines and heat pumps. Three hours of lecture per week. **Prerequisites:** PHYS 2325 and 2125.

#### MENG 3303: Dynamics of Machinery

Analysis of the kinematics and forces in mechanical mechanisms and assemblies. Three hours of lecture per week. **Prerequisite:** MENG 2302.

#### MENG 3304: Thermodynamics II

Power and refrigeration cycles, chemical reactions, combustion, gas mixtures, psychometrics, availability analysis. Three hours of lecture per week. **Prerequisites:** MENG 3301, MATH 3305.

#### MENG 3305: Transport Processes

Basic study of momentum, energy, and mass transport, dimensional analysis, includes laminar and turbulent fluid flow, conduction heat transfer, convection heat transfer, and radiation heat transfer. Three hours of lecture per week. (Not for mechanical engineering majors.) **Prerequisite:** MENG 3301.

#### MENG 3306: Mechanics of Materials

Stress and strain; uniaxially loaded members; centroids and area moments of inertia; normal and shear stresses; beam deflections; buckling of columns; pressure vessels; combined stresses; failure criteria. Three hours of lecture per week. **Prerequisite:** MENG 2301.

#### MENG 3309: Mechanical Systems Design

Characterization, design, selection, and integration of mechanical systems and components including shafts, bearings, seals, gears, springs, mechanical fasteners, linkages. Three hours of lecture per week. **Prerequisites:** MENG 3303 and MENG 3306.

#### MENG 3310: Fluid Mechanics

Basic concepts of a fluid, and the fundamentals and applications of ideal and real fluid flow. Topics include fluid statics, conservation principles, the Bernoulli equation, fluid flow in pipes, open channel flow, and fluid flow measurement devices. Three hours of lecture per week. **Prerequisites:** MENG 2302, MATH 3404, and concurrent registration or completion of MATH 3305.

#### MENG 3316: Heat Transfer

Fundamentals and applications of conduction, convection, and radiation heat transfer. Analysis of steady-state and transient conduction employing analytical methods and numerical techniques. Simple theory of laminar and turbulent, free and forced convection and use of practical correlations. Basic thermal radiation concepts and applications. Three hours of lecture per week. **Prerequisites:** MENG 3301 and MENG 3310.

#### MENG 3319: Materials Science and Manufacturing

Introduction to materials science including the structure of metals and polymers, the testing of mechanical properties of materials, the relationship between material properties, structure and processing techniques, and the capabilities and limitations of modern manufacturing methods. Two one-hour lectures and one three-hour lab per week. **Prerequisites:** CHEM 1311 and CHEM 1111 or equivalent, ENGR 1200 or completion of a technical writing course, MENG 1201 or completion of a Computer Aided Drafting course.

#### MENG 4115: Senior Design I

The goal establishment, planning and concept generation phases of a capstone design project required of all seniors in Mechanical Engineering. Includes the selection of a suitable project, an analysis of the design problem, the planning required to reach the desired goal, and the preparation of a project preliminary design document.. Multidisciplinary teams will work on design problems defined in cooperation with representatives from industry when possible. Three-hour design studio per week. **Prerequisite:** ENGR 3314; concurrent registration or completion of MENG 3309, 4311, and 4313.

#### MENG 4311: Electro-Mechanical Systems Design

Characterization, design selection, and integration of electro-mechanical systems and components including AC and DC motors, generators, servomotors, stepper motors, controllers, solenoids, hydraulic and pneumatic actuators. Two hours of lecture and one three-hour lab per week. **Prerequisites:** MENG 3210, MENG 3303, EENG 3304 and MATH 3305.

#### MENG 4313: Thermal/Fluid Systems Design

Characterization, component selection, and integration of thermal systems and components including engines, turbines, compressors, pumps, and heat exchangers. Two hours of lecture and one three-hour lab per week. **Prerequisites:** MENG 3211, MENG 3304 and MENG 3316.

#### MENG 4315: Senior Design II

The senior design project, which was begun in MENG 4115, continues to completion. This major capstone design project builds on previous course work, includes all stages of the design process, and takes into account a variety of realistic constraints, such as manufacturability and sustainability; economic factors; and environmental, safety, and reliability issues. Preparation and presentation of final oral and written reports are required. The design project may be a team effort and may be defined in conjunction with industry. Three three-hour design studios per week. **Prerequisite:** MENG 4115.

#### MENG 4317: Vibrations

Analysis and prediction of the free and forced dynamic behavior and of mechanical systems; first, second, and higher order systems; vibration isolation and absorption; vibration characteristics of rotating machinery. Three hours of lecture per week. **Prerequisites:** ENGR 2302 and MATH 3305.

#### MENG 4318: Heating, Ventilation, and Air Conditioning

Analysis and design necessary to plan and specify equipment for heating, refrigeration, and air conditioning systems; heat transfer analysis of structures and equipment, psychometric analysis, thermodynamic and economic analysis. Three hours of lecture per week with integral laboratory emphasizing design. **Prerequisites:** MENG 3304 and MENG 3316.

#### MENG 4320: Design for Manufacturing

Design principles for achieving quick, low cost product introduction through consideration of cost, quality, reliability, maintainability, appearance and ergonomics; consideration of the interaction between design, materials, and method of production. Three hours of lecture per week. **Prerequisite:** MENG 3319.

#### MENG 4321: Applications of Microprocessors

Application of microprocessor based systems, especially PC systems, to the acquisition and processing of data and to the control of systems in real-time; microprocessor and microcomputer fundamentals; assembly language programming; operator-machine interface; analog-to-digital converters; digital control techniques. Three hours of lecture per week with integral laboratory. **Prerequisite:** Concurrent enrollment in or completion of MENG 4311.

#### MENG 4323: Introduction to Industrial Robotics

An overview of industrial robots including manipulator arm selection guidelines and the application of robots in manufacturing and assembly. Principles of kinematics, dynamics and control of robotic manipulators. Robotic sensors, end effectors and actuators. Coordinate frames and homogeneous transformations. Robotic system integration, and path planning. Industrial robot programming in a laboratory setting. Three hours of lecture per week with integrated laboratory sessions. **Prerequisites:** MENG 3309, MATH 3203 and MATH 3305.

### MENG 4324: Computer Aided Manufacturing

A study of how computers are used to enhance product design and manufacturing processes. Topics include computer-aided design and manufacturing (CAD/CAM), rapid prototyping, computer numerical control (CNC), computer integrated manufacturing (CIM), and computer monitoring of production machinery. Two one-hour lectures and one three-hour lab per week. **Prerequisite:** MENG 3319, MENG 3309.

### MENG 4325: Digital Control of Mechanical Systems

Computer control of machines and processes. Topics include digital control theory, signal processing strategies, analog-to-digital and digital-to-analog (A/D-D/A) conversion, dedicated microprocessor control, sensor and actuator selection. Two hours of lecture and one three-hour laboratory per week. **Prerequisite:** Concurrent enrollment in or completion of MENG 4311 or ENGR 4309.

### MENG 4326: Finite Element Methods in Mechanical Engineering

An introduction to the finite element method in mechanical engineering. Emphasizes linear stress and strain analysis, but includes other field problems. Utilizes commercial computer codes to solve stress analysis, heat transfer, and other engineering related problems. Three hours of lecture per week with integrated lab. **Prerequisites:** MATH 3203, MENG 3306, and MENG 3316.

### MENG 4327: Introduction to Turbomachinery

Fundamental aerothermodynamics and design of turbomachinery components, including axial and centrifugal compressors, and axial and radial turbines, as well as in depth analysis of Brayton cycles. Three hours of lecture per week with integrated laboratory sessions. **Prerequisites:** MENG 3301, MENG 3304, and MENG 3316.

### MENG 4328: Fundamentals of Aerospace Sciences

An introduction to fundamental concepts of aerospace engineering. Three hours of lecture per week. **Prerequisites:** MENG 3304 and MENG 3310.

### MENG 4329: Compressible Flow

Introductory analysis of compressible flows, mathematical background, and physical concepts of isentropic flow, shock waves, expansion waves, and applications. Three hours of lecture per week. **Prerequisites:** MENG 3304 and MENG 3310.

### MENG 4150-4350: Topics in Mechanical Engineering

Studies in mechanical engineering topics not covered in regularly scheduled undergraduate courses. May be repeated as content changes. A maximum of nine credit hours may be used for undergraduate credit. **Prerequisite:** CI.

# COLLEGE OF NURSING AND HEALTH SCIENCES

#### Dr. Linda K. Klotz, Dean

#### Mission

The mission of the College of Nursing and Health Sciences is consistent with the mission of the University of Texas at Tyler. Graduates are prepared for leadership roles in the health professions and movement sciences. The graduates practice in a variety of complex, continually changing environments. Emphasis is placed on critical thinking, lifelong learning, competence, ethics, and altruism.

# Department of Health and Kinesiology

#### Dr. Scott Marzilli, Chair

The Mission of the Department of Health and Kinesiology is to responsibly facilitate learning in the areas of health and kinesiology (the study of movement or exercise), emphasizing competence, ethics, and altruism. The Department aims to (a) provide students with knowledge and skills specifically required for success in professional positions or in further studies in health and kinesiology, and (b) cultivate a desire for lifelong learning and provide practice with learning skills that can be used throughout life.

The Department offers studies that prepare for a variety of careers related to health, education, exercise and science, athlete training, fitness and other fields. Specific undergraduate degrees offered are: Bachelor of Science in Health Studies, Bachelor of Science in Kinesiology, Bachelor of Arts in Health and Kinesiology. Aims and requirements of each of the Department's undergraduate degrees are described below in this section of the catalog. The graduate degree programs are described under Department of Health and Kinesiology in the graduate section of this catalog.

A student pursuing studies in health or kinesiology should be aware that requirements other than those of the Department may apply, including requirements listed in the following sections of this catalog: Undergraduate Academic Policies, including Undergraduate Admission Requirements and General Baccalaureate Degree Requirements; requirements for teacher certification, under School of Education; and Instruction; and Graduate Policies and Programs.

### Bachelor of Science in Health Studies Total Semester Credit Hours = 120

The mission of the B.S. Degree Program in Health Studies is to prepare students for professional careers or advanced studies in health-related fields. This program provides graduates with an understanding of a wide range of health-related topics, including: diseases and their causes, distributions, risk factors and prevention; the system of health care delivery in the U.S.; and health promotion and health education in the broadest sense. This program may be used (a) to prepare for or to advance careers related to health care and health promotion in various public and private, clinical and non-clinical settings; (b) to prepare for graduate or professional studies in areas such as public health, physical therapy, clinical exercise physiology, and medicine; or (c) to prepare for Texas State certification to teach health at all levels from Early Childhood to Grade 12.

For a suggested four-year course of study please visit the department webpage at: www.uttyler.edu/hkdept.

#### Curriculum

1. University Core (44 hours)

The student pursuing teacher certification should take SPCM 1315 Fundamentals of Speech Communication to meet the humanities requirement. For others, PHIL 1301: Introduction to Philosophy is recommended.

CHEM 1311/1111: General Chemistry I/Laboratory and

CHEM 1312/1112: General Chemistry II/Laboratory are recommended for meeting the natural sciences requirement of the University core curriculum.

- Departmental Lower-Division Requirements (12 hours) ALHS 1300/1100: Personal and Community Wellness/Laboratory BIOL 2301/2101: Anatomy and Physiology I/Laboratory BIOL 2302/2102: Anatomy and Physiology II/Laboratory
- 3. Required Upper-Division Health Studies Courses (45 hours) ALHS 3301: Environmental Health

ALHS 3302: Human Diseases

ALHS 3315: Nutrition in Health and Performance

ALHS 3350: Health Biometry

ALHS 3352: Consumer Health

ALHS 3360: Principles of Community and Public Health

ALHS 3362: Behavioral Health

ALHS 4304: Analysis of Needs, Processes and Outcomes in Health

ALHS 4306: The Health Care Delivery System

ALHS 4320: Principles of Epidemiology

- ALHS 4324: Drugs and Health
- ALHS 4326: Sexual Health

ALHS 4333: Stress Management

HECC 4308: Ethics

HECC 4370: Internship

#### 4. Prescribed Electives (19 hours)

a. Three hours of Communication courses from the following: SPCM 3321, 3325, 4326, or 4329

b. Four hours of Kinesiology courses from the following: KINE 3311/3112; KINE 3331/3132; or KINE 3334/3135:

c. Twelve hours of electives with approval of advisor

#### Teacher Certification

All students wishing to be certified to teach health (EC-12) in Texas public schools must complete the Academic Foundations, Professional Development, and required content courses and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction. For complete degree requirements please visit our website at: www.uttyler.edu/hkdept.

## Bachelor of Science in Kinesiology

Total Semester Credit Hours=120-122

The Bachelor of Science Degree Program in Kinesiology offers teaching and nonteaching options. The mission of the teaching option is to prepare for Texas State certification to teach physical education at all levels from Early Childhood to Grade 12. The mission of the nonteaching option is to prepare for entry-level positions related to exercise in clinical, business or other settings, or to prepare for post-baccalaureate professional (e.g., physical therapy, occupational therapy, medicine) or graduate studies related to exercise science. The nonteaching option may be used to prepare for the State examination for licensing as an athletic trainer in Texas. A student wanting to pursue the Texas athletic trainer license should consult with an academic advisor early in the program. Such students must complete other State licensing requirements in addition to the courses listed below, including apprenticeships under the supervision of a licensed or certified athletic trainer. For a suggested four-year course of study please visit the department webpage at: www.uttyler.edu/hkdept.

#### Curriculum

#### 1. University Core (44 hours)

The student pursuing teacher certification should take SPCM 1315: Fundamentals of Speech Communication to meet the humanities requirement. For others, PHIL 1301: Introduction to Philosophy is recommended.

#### 2. Department Lower-Division Requirements (15 hours)

ALHS 1300/1100: Personal and Community Wellness/Laboratory BIOL 2301/2101: Anatomy and Physiology I/Laboratory BIOL 2302/2102: Anatomy and Physiology II/Laboratory

KINE 2337: Care and Prevention of Athletic Injuries

#### Required Upper-division Kinesiology Major Courses (42-43) HECC 4308: Ethics

HECC 4333: Tests and Measurements

HECC 4370: Internship

KINE 3311/3112: Physiology of Exercise/Laboratory

KINE 3303: Motor Development

KINE 3331/3132: Human Motor Control and Learning/Laboratory

KINE 3334/3135: Biomechanics and Anatomical Kinesiology/Lab

KINE 4305: Principles of Training

KINE 4314: Prescriptive Exercise

KINE 4321: Sports Nutrition

#### 4. Cognate Courses (28 hrs.)

Three hours of Communication selected from the following: SPCM 3321, 3322, 3325, or 4326

Three hours of Allied Health selected from the following: ALHS 3352; ALHS 3362; and ALHS 4320

Twenty-two hours selected with advisor (may include requirements for athletic training students or teacher certification\*)

#### \*Additional required courses for athletic training students

HECC 4371: Internship

KINE 3340: Assessment of Athletic Injuries

KINE 3342: Therapeutic Modalities for Athletic Training PYED 4156: Topic in Motor Performance (taken 4 semesters)

#### \*Additional required courses for teacher certification students

ALHS 3315: Nutrition in Health and Performance

ALHS 4317: Theoretical and Clinical Aspects of Weight Management

ALHS 4324: Drugs and Health

ALHS 4333: Stress Management

HECC 4353: Program Organization and Administration

KINE 4308: Adapted Physical Education

PYED 4340: Teaching Methods in Physical Education

#### **Teacher Certification**

All students wishing to be certified to teach physical education (EC-12) in Texas public schools must complete the Academic Foundations, Professional Development, and required content courses and meet the requirements described in the Certification section of the College of Education and Psychology section of this catalog. For further information see a consultant in the Department of Curriculum and Instruction. For complete degree requirements please visit our website at: www.uttyler.edu/hkdept.

### Bachelor of Arts in Health and Kinesiology Total Semester Credit Hours=120

The mission of the Bachelor of Arts Degree Program in Health and Kinesiology is to provide a broad understanding of both health and kinesiology as the basis for post-baccalaureate professional or graduate studies (e.g., medicine, physical therapy, exercise science), or entry-level positions in related fields (e.g., health, fitness). This program provides broad exposure to both health and kinesiology and gives flexibility with elective courses to design a program appropriate to academic and career goals. The student may use electives for further study of health and/or kinesiology.

For a suggested four-year course of study please visit the department webpage at: www.uttyler.edu/hkdept.

#### Curriculum

1. University Core (44 hours)

PHIL 1301: Introduction to Philosophy is recommended for meeting the humanities requirement of the University core curriculum.

- Departmental Lower-Division Requirements (12 hours) ALHS 1300/1100: Personal and Community Wellness/Laboratory BIOL 2301/2101: Anatomy and Physiology I/Laboratory BIOL 2302/2102: Anatomy and Physiology II/Laboratory
- Health and Kinesiology Core Courses (33 hours) ALHS 3301: Environmental Health

ALHS 3302: Human Diseases

ALHS 3352: Consumer Health

ALHS 3360: Principles of Community and Public Health

ALHS 4306: The Health Care Delivery System

HECC 4308: Ethics

KINE 3311/3112: Physiology of Exercise/Laboratory

KINE 3303: Motor Development

KINE 3331/3132: Human Motor Control and Learning/Laboratory KINE 3334/3135: Biomechanics and Anatomical Kinesiology/Lab

4. Electives (31 hours)

Select with advisor approval

### Minor in Health or Kinesiology

Health or kinesiology may be chosen as a minor to satisfy certain baccalaureate degree programs with majors in other fields. A minor in health consists of 18 semester hours of health courses, with at least 12 upper-division. A minor in kinesiology consists of 18 semester hours of kinesiology courses, with at least 12 upper-division; in addition, eight semester hours of anatomy and physiology are required. Courses are selected by the student with approval of a faculty advisor in the Department of Health and Kinesiology.

# Pre-Medical Technology (Clinical Laboratory Sciences)

Clinical Laboratory Science Programs require students to have a strong basic science background and develop expertise in clinical science and clinical laboratory procedures. Medical technologists are responsible for performing complex biological and chemical analysis on blood and other specimens to provide accurate and reliable laboratory test data to clinicians. Medical technologists know proper utilization of laboratory tests for diagnosis and treatment of disease, how to obtain appropriate specimens following sampling protocols, ways to use and maintain automated

#### COLLEGE OF NURSING AND HEALTH SCIENCES

analytical systems, procedures for quality assurance and quality control testing, and interpretation and correlation of test results with disease states.

Clinical laboratory sciences degree is offered in collaboration with the Department of Clinical Laboratory Sciences at The University of Texas Medical Branch (UTMB) at Galveston. UTMB provides an opportunity for qualified students of UT Tyler who have identified Clinical Laboratory Sciences as a career choice to receive early acceptance into UTMB's CLS Program ("PROGRAM") towards completion of their Bachelor's of Science degree. UTMB will accept 60 semester credit hours from UT Tyler curriculum towards a baccalaureate degree in Clinical Laboratory Sciences.

#### Description of Program

- 1. The student enters a curriculum designed by UT Tyler that shall include the minimal course requirements as outlined below by the PROGRAM. The student is encouraged to take as many courses in the sciences as possible but should realize that a strong liberal arts background is important for the development of well-rounded and successful health professions students and practitioners.
- 2. Participants in the PROGRAM will be assigned an advisor at UTMB to provide the student with a personal contact during the initial course of study at UT Tyler. The advisor will also aid the student in the timely completion of processes, such as completing UTMB admissions procedures.
- Following successful completion of the required curriculum at UT Tyler, the student will enroll in the PROGRAM, contingent upon the following:
  - a. A grade of "C" or better in all required prerequisite courses.
  - b. A cumulative GPA of 2.80 or above for all courses taken in the two year curriculum.
  - c. A cumulative GPA of 2.80 or above for all required science courses.
  - d. A positive recommendation by the PROGRAM's Admissions Committee.
  - e. A positive record of ethical behavior during enrollment at UT Tyler.
- 4. Repetition of courses may be considered acceptable if, in the opinion of the PROGRAM's Admission Committee, the number of these courses is not excessive. All grades of a repeated course are calculated into the student's overall GPA (not simply the latest or best grade).
- Following successful completion of the combined four-year curriculum at UT Tyler and UTMB, the student will be granted a Bachelor of Science degree in Clinical Laboratory Sciences.
- 6. Students who do not fulfill the requirements of this early acceptance program are in no way precluded from applying to the program through the usual process.

#### Clinical Laboratory Sciences Program Prerequisites

This transfer guide is subject to change. It is the responsibility of the student to verify the applicability of this information with both institutions.

CLS Prerequisite	Credit Hrs	UT Tyler Equivalent	UT Tyler Description
English Comp I & II*	3	ENGL 1301 & 1302	Grammar & Comp. I& II
World or British Literature *	6	ENGL 2322	English Lit. to 1780s
US History*	6	HIST 1301 & 1302	US History I & II
US & Texas Government*	6	POLS 2305 & 2306	Intro American Gov't. & Intro. Texas Politics
Biological Sciences <sup>1</sup>	8	BIOL 1306/1106; BIOL 1307/1107	General Biology I & II and Labs

General Microbiology	4	BIOL 2320/2120	Microbiology & Lab
General Chemistry <sup>1</sup>	8	CHEM 1311/1111; CHEM 1312/1112	General Chemistry I & II and Labs
Organic Chemistry <sup>1</sup>	4	CHEM 3342/3143	Organic Chem. I & Lab
Mathematics <sup>2</sup>	3	MATH 1314	College Algebra
Social Sciences	3	PSYC 1301 or SOCI 1301	General Psychology or Introduction to Sociology
Humanities *	3	SPCM 1315	Fundamentals of Speech
Fine Arts* History or appreciation of fine arts	3		
Human Physiology <sup>1</sup>	3	BIOL 3343	Human Physiology
Computer Course <sup>3</sup>	3	COSC 1307	Intro. to Information Systems Software

\*These credits are required by the State of Texas for all students receiving a bachelor's degree in any field from a state institution.

<sup>1</sup> Biology and chemistry courses should be offerings for science majors and include laboratories.

<sup>2</sup> Mathematics must be College Algebra or higher.

<sup>3</sup> The computer course should provide keyboard utilization, as well as experience with an integrated word processor, spreadsheet, and database program.

## Nursing

The College of Nursing and Health Sciences offers the Bachelor of Science in Nursing (BSN) Degree for beginning and licensed (RN and LVN) students. Upon successful completion of the BSN curriculum at the Tyler, Longview, or Palestine campus, graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

#### Objectives

The College's nursing graduates address the challenges of a dynamic health care delivery system by initiating resourceful solutions for health promotion, risk reduction, and disease management.

Based on the philosophy and mission statements of both the university and the College of Nursing and Health Sciences, the following behaviors reflect expected outcomes (terminal objectives) for the nursing program. Graduates of the baccalaureate nursing program should be able to:

- A. Integrate knowledge from the biological and behavioral sciences, and humanities to foster a commitment to life-long learning and professional development;
- B. Utilize basic organizational and system leadership to coordinate quality patient care;
- C. Synthesize nursing research findings with other relevant information from the scientific and humanistic disciplines to facilitate evidence-based practice;
- D. Integrate the use of technology and information systems to facilitate delivery of comprehensive care;
- E. Demonstrate basic knowledge of healthcare policy, finance, and regulatory environments;
- F. Advocate for patient centered care through inter- and intraprofessional collaboration to reflect human caring while providing care to diverse populations across the lifespan;

- G. Integrate health promotion and disease prevention at the individual and population level to improve health outcomes;
- H. Demonstrate professional values based on historical, moral, ethical, and legal aspects of nursing practice responding to global health needs;
- I. Synthesize skills, knowledge and attitudes required to provide holistic, evidence-based patient-centered care to diverse populations across the health care continuum.

#### Advisement and Counseling

Appointments with nursing faculty and advisors may be scheduled through the secretary of the College of Nursing and Health Sciences on the main campus at 903-566-7320; Longview Campus 903-663-8223; and Palestine Campus 903-723-2308.

#### Prerequisites

All students must complete the core curriculum requirements of the University and prerequisite nursing courses with a grade of "C" or better and a minimum GPA of 2.75 (4.0 basis) in order to be considered for admission. Prerequisite courses required for the BSN include:

#### Physical and Biological Sciences

anatomy and physiology	8 hours	
chemistry with laboratory	4 hours	
microbiology or bacteriology	4 hours	
nutrition	3 hours	
a . 1 a		
Social Sciences and Humanities		
Social Sciences and Humanities life span growth and development	3 hours	
	3 hours 3 hours	
life span growth and development	-	

#### **Admission Policy**

#### Full Admission

Students are considered for full admission to the undergraduate nursing program if all the core curriculum requirements and the nursing prerequisite courses are completed with a minimum grade point average of 2.75, and all transcripts are on file in the Admissions Office.

The student must also have a current Nursing Verification Form on file in the College of Nursing and Health Sciences and results of the TEAS with a score of 72% or higher on the reading score and a composite net score of 72% or higher.

#### **Conditional Admission**

Students are eligible for consideration for conditional admission to the undergraduate nursing program if there are no more than five (5) outstanding prerequisite courses required to complete the core curriculum and nursing prerequisites by the deadline, have a cumulative GPA of 2.75 on the core curriculum and nursing prerequisites, a current Nursing Verification Form and a minimum composite and TEAS reading score of 72% or higher.

#### Achievement Examinations

Achievement examinations will be administered throughout the nursing program. In addition to fulfilling the academic requirements of the university and the Nursing program, all students must take a comprehensive achievement examination in the final semester of the nursing program.

#### Expenses of the Nursing Program

In addition to general university tuition and fees, the student majoring in nursing assumes financial responsibility for payment of criminal background check, uniforms, malpractice insurance, and clinical accessories. In the final semester of study the student is required to pay fees for the application to take the NCLEX-RN and the application for licensure. Go to www.bon.state.tx.us for information on current fee structure.

Upon admission to the nursing program all students must submit evidence of the following: (1) current immunizations- MMR, hepatitis B series (3 injections), tetanus, diphtheria, polio (2) TB screening (updated on a yearly basis) (3) American Heart Association Healthcare Provider CPR, and (4) professional liability insurance purchased through the College of Nursing and Health Sciences.

The student must also provide her/his own transportation to health care agencies. Driving distances will vary; clinical assignments will be based on availability of learning experiences.

#### The Bachelor of Science in Nursing (BSN) Degree Total Semester Credit Hours =120

Suggested Lower-Division Curriculum Flow

# Core Curriculum Requirements and Nursing Prerequisites:

#### Freshman Year

First semester ENGL 1301: Grammar and Comp. I BIOL 2301: Anatomy & Physiology I* BIOL 2101: Anat. & Phys. I Lab* HIST 1301: United States History I POLS 2305: US Government Total Hours	3 $3$ $1$ $3$ $13$
Second semester ENGL 1302: Grammar and Comp. II BIOL 2302: Anatomy & Physiology II* BIOL 2102: Anat. & Phys. Lab I* HIST 1302: United States History II POLS 2306: Texas Government Total Hours	3 3 1 3 3 3 16
Sophomore Year	
First semester CHEM 1305: Intro. to Chemistry* CHEM 1105: Intro. to Chemistry Lab* MATH 1314: College Algebra ENGL 2322: English Lit. to the 1780s PSYC 1301: Intro. to Psych. Humanities Total Hours	3 $1$ $3$ $3$ $3$ $16$
Second semester BIOL 2320: Microbiology I* BIOL 2120: Microbiology Lab* ALHS 3315: Nutrition PSYC 2320: Lifespan Develop. Psych. MATH 1342: Statistical Methods Fine Arts Total Hours	3 $1$ $3$ $3$ $3$ $16$

\*Required science courses must be taken in the sequence outlined above in order to fulfill the requirements.

At this point, the student may apply for admission to the College of Nursing and Health Sciences. Applicants accepted to the nursing program must follow the course sequence outlined below plus fulfill general baccalaureate degree requirements of UT Tyler. A minimum grade of "C" must be obtained in each required course.

#### **BSN Degree Requirements**

#### Junior Year

The following courses must be completed prior to admission to the nursing program:

NURS 3303: Pathophysiology of Acute Care	3
NURS 3205: Nursing Concepts and Theories	2
	5
Semester I	
NURS 3307: Pharmacological Basis For Nursing	3
NURS 3310: Health Assessment	3
NURS 3603: Nursing Competencies	6
Total:	12

Semester II NURS 3333: Nursing Research NURS 3611: Adult Health I NURS 3513: Mental Health Total:	$ \begin{array}{r} 3\\ 6\\ 5\\ 14 \end{array} $
Senior Year	
Semester III: NURS 4212: Health of the Older Adult NURS 4632: Adult Health II NURS 4723: Family Health Total:	2 6 7 15
Semester IV NURS 4234: Issues in Professional Practice NURS 4501: Community Nursing NURS 4631: Professional Synthesis Total:	$ \begin{array}{r} 2 \\ 5 \\ 6 \\ 13 \end{array} $

### MINE Option: Baccalaureate Degree in Nursing

#### **RN** Option

The Mobility in Nursing Education (MINE) option is designed for registered nurses (ADN or diploma) as an alternative and accelerated educational program for the baccalaureate degree. The curriculum is constructed to augment prior learning and professional experiences of the RN. Classroom and independent learning activities accompanied by structured and individualized clinical experiences function to prepare the registered nurse at the baccalaureate level.

The curriculum flow is designed for the RN to complete the degree requirements in 12 months of full time study (2 regular academic semesters and 1 summer). Part time study is an option for those who cannot take a full semester of course work. Every effort is made to provide flexible scheduling of required nursing courses. The RN-BSN courses are web based offerings, or may be taken in the classroom. NURS 4501, Community Nursing is taught during the summer for the RN.

The RN enrolled in the MINE option is awarded 30 SCH of advanced placement credit with successful completion of NURS 3415. For the RN seeking to graduate with honors, an additional 15 SCH must be taken in order to meet the University requirement of completing 45 SCH at UT Tyler to graduate with honors (see graduation with honors requirements).

#### **RN-BSN/MSN Licensure Requirement**

All Registered Nurses in the MINE track must have a current, active license to practice in the state in which they reside and practice in order to be eligible to participate in the required clinical experiences in NURS 4501 and NURS 4631.

#### Semester I

NURS 3303: Pathophysiology of Acute Care	3	
NURS 3312: Health Assessment for Licensed Nurses	3	
NURS 3415: Professional Transitions		
Upper division elective		
Total:	13	
*An upper-division elective must be taken at UT Tyler to meet residency requirements.		

\*\*30 SCH Advanced Placement Credit

#### Semester II

NURS 3333: Nursing Research	3
NURS 4234: Issues in Professional Practice	2
NURS 4631: Professional Synthesis	6
Total:	11
Summer	
NURS 4501: Community Nursing	5
Total:	59 Sem. Credit Hours

#### The RN-MSN Option

Registered nurses who have an Associate Degree in Nursing (ADN) or a Diploma in Nursing may be eligible for early admission into the Master of Science degree program. Through a combination of prior credits in nursing education, college credits in liberal arts courses and upper division course work from the College of Nursing and Health Sciences, individuals may qualify to begin work toward the Master's degree and complete the requirements for the Bachelor of Science in Nursing (BSN) degree in the process. For more information concerning this degree program refer to the College of Nursing and Health Sciences graduate section of this catalog or contact the pre-nursing advisor at 903-566-7243.

#### LVN Option

The LVN-BSN track offers the licensed vocational nurse (LVN) an educational program to obtain the baccalaureate degree in nursing. Classroom and clinical experiences function to prepare the LVN for the professional nurse role at the baccalaureate level. Upon graduation the LVN is eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN)

The curriculum flow is designed for the LVN to complete the degree requirements in four academic semesters of full time study. Part time study is an option for those who cannot take a full semester of course work. The LVN is awarded 6 SCH of advanced placement credit for NURS 3603, Nursing Competencies upon successful completion of all semester one courses.

The LVN also has the option of challenging NURS 3307 Pharmacological Basis for Nursing Practice. The exam is taken prior to the first semester after receiving official notification of admission. The student must make 75 or higher on the exam to get credit. If not successful, the course must be completed during the regular academic semester.

#### **Degree Requirements**

#### Junior Year

The following courses must be completed prior to admission to the nursing program:

NURS 3303: Pathophysiology of Acute Care	3	
NURS 3205: Nursing Concepts and Theories		
	5	
Semester I		
NURS 3307: Pharmacology	3	
NURS 3310: Health Assessment	3	
NURS 3116: LVN to RN	1	
NURS 3603 Nursing Competencies	CR	
Total Hours Semester I	7	
Semester II		
NURS 3333: Nursing Research	3	
NURS 3611: Adult Health 1	6	
NURS 3513: Mental Health	5	
Total Hours Semester II:	14	
Senior Year		
Semester III		
NURS 4212: Health of Older Adults	2	
NURS 4632: Adult Health 2	6	
NURS 4723: Family Health		
Total Hours Semester III:	15	
Semester IV		
NURS 4234: Issues in Professional Practice	2	
NURS 4501: Community Nursing NURS 4631: Professional Synthesis	5	
Total Hours Semester IV:	13	
Total:	59 Sem. Credit Hours	

# NURSING AND HEALTH SCIENCES COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

# Allied Health Science (ALHS)

#### ALHS 1300: Personal and Community Wellness

Study of individual, societal and cultural considerations in health and wellness. Emphasis is on health-related factors that the individual can affect and on individual decision-making. **Co-requisite:** ALHS 1100

#### ALHS 1100: Personal and Community Wellness Lab

Applied and lab-based study of individual, societal and cultural considerations in health and wellness. Emphasis is on assessment of health-related factors that the individual can affect and on individual decision-making. **Co-requisite:** ALHS 1300.

#### ALHS 3301: Environmental Health

Study of the impact of the environment on health.

#### ALHS 3302: Human Diseases

Study of the etiology, control, and prevention of chronic and infectious diseases. **Prerequisite:** BIOL 2301/2101.

#### ALHS 3315: Nutrition in Health and Performance

Study of basic nutrition and the role of nutrition in health across the life cycle.

#### ALHS 3350: Health Biometry

Study of the analysis of biological, demographic, social and other forms of data related to human health and disease.

#### ALHS 3352: Consumer Health

Study of health services and products from a consumer perspective. Methods of critical analysis are used to evaluate the credibility of claims made in the marketplace as well as by government. Consumer protection and rights, marketing, science, public agenda setting, and special interest groups are studied with the objective of developing critical health consumers.

#### ALHS 3360: Principles of Community and Public Health

Study of basic components of community health services and education.

#### ALHS 3362: Behavioral Health

Study of the effects of various aspects of behavior on health, including effects on disease risks and prognosis in selected disease states, and study of behavioral alternatives in relation to promotion of health of the individual.

#### ALHS 4301: Allied Health Sciences Seminar

Study of current trends and problems in the allied health sciences. May be repeated once for credit when content changes.

#### ALHS 4304: Analysis of Needs, Processes and Outcomes in Health

Study of the quantitative and qualitative methods applied to determining needs, processes, and outcomes for a broad range of health entities with a focus on the interactions among financial exigencies, processes of product or service delivery, and quality as core elements in decision-making.

#### ALHS 4306: The Health Care Delivery System

Study of the social, political, and economic systems that influence America's unique and diverse approach to systems of health enhancement and care delivery. (Available online.)

#### ALHS 4307: Legislation and Legal Issues

Study of the legislative and legal issues affecting health care.

### ALHS 4317: Theoretical and Clinical Aspects of Weight Management

An overview of factors associated with weight gain and obesity. Designed for the student with personal or professional interest in the nutritional, psychological, sociocultural, physical and physiological factors in weight control. A translation of theory into application.

#### ALHS 4320: Principles of Epidemiology

Study of the distribution and determinants of disease, disability, disorders, morbidity and mortality in human populations. **Prerequisite:** ALHS 3350 or CI.

#### ALHS 4324: Drugs and Health

Study of legal and illegal use, misuse, and abuse of chemical substances that alter structure or function in living organisms.

#### ALHS 4326: Sexual Health

Study of the biological, psychological, sociocultural, and ethical aspects of human sexual behavior as they relate to health.

#### ALHS 4330: Emergency Health Care

Instruction in knowledge and skills for assisting victims of accidents or other medical emergencies. Designed for firefighters, police officers, safety officers and others who may be the first to arrive at the scene.

#### ALHS 4333: Stress Management

Study of the situations and underlying processes that result in emotional and physiological arousal, including life assessments and behavioral interventions for altering arousal levels.

# Health and Exercise Core Courses (HECC)

#### HECC 4308: Ethics

Study of ethical considerations encountered in health and kinesiology, emphasizing a case-study approach.

#### HECC 4333: Tests and Measurements

Study of tests of fitness, functional capacity, and other variables commonly used in health and kinesiology programs. Test protocols and proper data collection, reduction of test data, and application of norms and criteria are emphasized.

#### HECC 4353: Program Organization and Administration

Study of the administration of school-based and other programs related to health and kinesiology.

#### HECC 4370 & 4371: Internship

A minimum of 140 clock hours of applied learning experiences. **CR/NC only. Prerequisite:** Consent of advisor.

#### HECC 4395: Contemporary Issues in Health and Kinesiology

Analysis of selected contemporary controversial problems in the areas of health and human movement, with emphasis on rational development and evaluation of viewpoints.

#### HECC 4199 - 4399: Independent Study

Independent study in specific areas of health and exercise science not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of department chair.

# Kinesiology (KINE)

NOTE: Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

# KINE 1101, 1201, 1301: Health-Related Fitness Activities [KINE 1301=TCCN PHED 1301]

Study of one or more activities that can be used to improve health-related fitness. Emphasis is on improving health-related fitness and developing activity-specific skills. Attention is also given to rules and etiquette, historical and cultural aspects of the activity, and activity-specific training techniques. May be repeated as activities vary.

#### KINE 1102, 1202, 1302: Sport Activities

Study of one or more sport activities, with emphasis on skill development and improvement. Attention is also given to rules and etiquette, historical and cultural aspects of the sport, health and fitness considerations and sport-specific training techniques. May be repeated as sport activities vary.

#### KINE 2337: Care and Prevention of Athletic Injuries

Study of principles and practice of techniques involved in prevention and treatment of injuries related to athletic performance. **Co-requisite or Prerequisite:** BIOL 2301/2101.

#### KINE 3303: Motor Development

Study of growth and physical development throughout different stages of life and the acquisition of neuromuscular control of movement at different levels of development.

#### KINE 3311: Physiology of Exercise

Study of functional responses to acute and chronic exercise. **Co-requisite:** KINE 3112. **Prerequisite:** Credit in anatomy and physiology or consent of instructor.

#### KINE 3112: Physiology of Exercise Laboratory

Laboratory assessment of responses to acute and chronic exercise. **Co-requisite:** KINE 3311.

#### KINE 3331: Human Motor Control and Learning

Study of principles and processes involved in learning and teaching motor skills, and the theories of control of movement. Application is made to sport, ergonomics and rehabilitation. **Co-requisite:** KINE 3132.

#### KINE 3132: Human Motor Control and Learning Laboratory

Laboratory and field analyses related to learning and control of motor skills. **Co-requisite:** KINE 3331.

#### KINE 3334: Biomechanics and Anatomical Kinesiology

Analysis of human movement, applying principles from Newtonian mechanics and study of structure and function of major joints and muscle groups. **Corequisite:** KINE 3135. **Prerequisite:** Credit in anatomy and physiology courses or CI.

#### KINE 3135: Biomechanics and Anatomical Kinesiology Laboratory

Laboratory and field analyses related to mechanics and musculoskeletal involvement in movement. **Co-requisite:** KINE 3331.

#### KINE 3340: Assessment of Athletic Injuries

Study of knowledge, skills and abilities related to assessment of injuries by the athletic trainer. **Prerequisite:** KINE 2337 and admission to Athletic Training Program.

#### KINE 3342: Therapeutic Modalities for Athletic Trainers

Study of knowledge, skills and abilities related to use of therapeutic modalities by the athletic trainer. **Prerequisite:** KINE 3340.

#### KINE 4305: Principles of Training

Application of physiological principles to athletic training for improvement of strength, power, and endurance. Includes study of sport-specific periodized training programs for athletes in different sports and of differing abilities. **Prerequisites:** KINE 3211, 3112, 3334, and 3135, or CI.

#### KINE 4308: Adapted Physical Education

Study of selected disabilities with emphasis on movement characteristics and modification of activities and equipment to permit individuals to engage in leisure and sport activities, particularly in the school setting.

#### KINE 4314: Prescriptive Exercise

Study of principles, guidelines, and procedures for prescribing remedial and preventive exercise programs. **Prerequisite:** KINE 3211 & KINE 3112.

#### KINE 4321: Sports Nutrition

Study of nutrition as it relates to optimal training and performance of sports activities. **Prerequisite:** ALHS 4315 or equivalent.

# Nursing (NURS)

### NURS 3115: Clinical Applications

This course is designed for the student seeking re-admission to the nursing program after non-continuing status for 1 year or more, or for the registered nurse seeking a mechanism to update clinical skills. This course is a mechanism to evaluate retained knowledge and clinical competency to ensure patient safety. **Prerequisite:** Application to the BSN program. Registered Nurse status in Texas.

#### NURS 3116: LVN to RN: Role Transformation

This WEB based course focuses on topics to facilitate the transition of the Licensed Practical / Vocational Nurse to assume the multiple roles of the Registered Nurse. Emphasis is on professional transition and verification of essential components of nursing skills including health assessment and designated technical skills. **Prerequisite**: Admission to the nursing program.

#### NURS 3205: Nursing Concepts and Theories

This course introduces the discipline of nursing based on a liberal education in the arts and sciences. Emphasis is on the development of professional identity through exploration of the major concepts of nursing. **Prerequisite:** College of Nursing advisor approval.

#### NURS 3303: Pathophysiology of Acute Care

This course focuses on the etiology, pathophysiology, and clinical presentation of selected human diseases across the life span. **Prerequisites:** Anatomy & Physiology I & II; Chemistry and Microbiology; College of Nursing advisor approval.

#### NURS 3307: Pharmacological Basis for Nursing

Pharmacotherapeutic aspects of nursing care are introduced and supported by evidenced based findings to improve patient care. Emphasis is on principles of safe administration of medications and patient education for major drug classifications. The impact of technology, economic, and regulatory forces as well as collaboration with the health team are discussed. Ethical/legal and cultural considerations are explored across the life span. **Prerequisite:** Admission to the nursing program.

#### NURS 3310: Health Assessment

This course focuses on knowledge and skills to perform a health history and head to toe assessment of individuals across the lifespan. Students practice health assessment skills in laboratory and selected settings. **Prerequisites:** Admission to the nursing program and successful completion of NURS 3205 and NURS 3303. (Credit: 1:2)

#### NURS 3312: Health Assessment for Registered Nurses

This WEB based course for the registered nurse augments knowledge and skills in order to complete comprehensive health assessments of individuals across the lifespan in selected clinical settings. **Prerequisite:** Admission to the RN-BSN track. (Credit: 2:1)

#### NURS 3333: Nursing Research

This course introduces evidence based practice as it relates to the science of nursing. Findings of selected research studies are appraised and presented. Ethical considerations and methods of protection of human subjects are integrated throughout the course. **Prerequisites:** Successful completion of NURS 3205, statistics and for the RN, NURS 3415. Special permission required from College of Nursing to take out of sequence.

#### NURS 3415: Professional Development for the RN

This WEB based course for registered nurses broadens existing knowledge of the discipline of nursing based on a liberal education in the arts and sciences. Emphasis is on professional role expansion through exploration of contemporary nursing issues. **Prerequisite:** Admission to the RN-BSN or RN-MSN track.

#### NURS 3513: Psychiatric/Mental Health Nursing

This course utilizes theories and concepts related to human behavior and alterations in human behavior. Using a holistic nursing approach, emphasis is on communication skills, self-awareness, and therapeutic use of self in selected settings. **Prerequisites:** Successful completion of NURS 3205, NURS 3303, NURS 3307, NURS 3310, and NURS 3603. (Credit: 2:3)

#### NURS 3603: Nursing Competencies

This course introduces nursing process, basic nursing skills supported by evidence based standards, nursing principles and technology to provide safe care for adults. Students demonstrate assessment skills, fundamental therapeutic nursing interventions, and nursing procedures in the laboratory and selected settings. **Prerequisites:** Successful completion of NURS 3205 and NURS 3303 and admission to the nursing programs. (Credit: 3:3)

#### NURS 3611: Medical/Surgical Nursing I

This medical/surgical course introduces holistic nursing care of adults experiencing acute or chronic illness in selected structured settings. **Prerequisites:** Successful completion of NURS 3205, NURS 3303, NURS 3307, NURS 3310, and NURS 3603. (Credit: 3:3)

#### NURS 4212: Gerontological Nursing

This course introduces gerontologic principles. Emphasis is on promotion and preservation of health as well as management of care in well and vulnerable older adults. **Prerequisites:** Successful completion of NURS 3333, NURS 3513, and NURS 3611 and for the RN admission to the RN-BSN/MSN track.

#### NURS 4234: Issues in Professional Nursing

This course synthesizes the ethical/legal concepts related to the roles of the registered nurse. Emphasis is on professional values and value based behaviors as a member of the profession. **Prerequisites:** Successful completion of NURS 4212, NURS 4632, and NURS 4723 for the generic student. Successful completion of NURS 3303, NURS 3312, and NURS 3415 for the RN. Special permission required from the College of Nursing to take out of sequence.

#### NURS 4313: Emergency Nursing

This course is an introduction to the concepts, theory, and practice of Emergency Nursing. **Prerequisite:** Completion of NURS 3611 or RN licensure.

#### NURS 4314: Nursing Care of the Perioperative Client

This course introduces the concepts, theories, and practice of perioperative nursing. **Prerequisite:** Completion of NURS 3611 or licensure as an RN. (Credit: 2-1)

#### NURS 4318: Women's Health Issues

This course covers a wide variety of issues relating to women's health and is available to all majors. A holistic approach is used to investigate issues impacting the health of women.

# NURS 4323: Holistic Health: The Art and Science of Caring and Healing

This course is designed to introduce the student to holistic philosophy, theory, and practice. Included will be seminar discussion, demonstration, and experiential sessions on holistic health assessment and alternative treatment modes to promote health and healing in practice and in daily living. Open to all majors.

#### NURS 4330: Contemporary Issues in Nursing Practice

This WEB based course is designed to prepare the inactive professional registered nurse (RN) in the State of Texas to re-enter the practice arena. The course is structured to expand the RN's knowledge of nursing process, pharmacologic principles, documentation in the medical record, legal and ethical foundations of nursing practice, and the role of the professional nurse. **Prerequisite:** Consent of Associate Dean for Undergraduate Nursing Programs.

#### NURS 4332: Art & Science of Precepting

This course will develop nurse preceptors who will assist new nurses to become competent, caring, and valued members of the health care team. The preceptor will assist in acclimating the new nurse to the work culture of professional nursing and in making the transition from student to professional.

#### NURS 4336: Pediatric Environmental Health

An introduction to environmental health and how chemicals and physical agents may affect children's health. Included are the health effects of specific agents and environments with an emphasis on the special susceptibility of children. **Prerequisites:** Consent of the instructor or advisor.

#### NURS 4340: Perinatal Clinical Practice

Expands on the concepts of perinatal coursework with development of knowledge and skills in perinatal clinical areas. Emphasis is on the use of multidimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** Consent of the Associate Dean.

#### NURS 4341: Special Topics in Nursing

Topics are designed to provide additional theory and/or opportunity to practice nursing skills in selected clinical areas. Up to twelve hours may be applied to a degree.

#### NURS 4342: Maternal Infant Clinical Practice

Expands on the concepts of maternal/infant coursework with development of knowledge and skills in maternal/infant clinical areas. Emphasis is on the use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** Consent of the Associate Dean.

#### NURS 4344: Neonatal Clinical Practice

Expands on the concepts of neonatal coursework with development of knowledge and skills in the neonatal clinical areas. Emphasis is on the comprehensive use of multidimensional assessment and care planning focusing on high-level clinical judgment and decision-making skills. **Prerequisite:** Consent of the Associate Dean.

#### NURS 4345: The Older Adult: Dimensions of Care

This course provides an opportunity for synthesis of selected issues related to health care of the older adult in societal context. The focus is on health status and equality of life. Participants will review issues of aging and health care in both local and national society through the professional literature, recent research, and interaction with guest faculty of older adults.

#### NURS 4346: Medical-Surgical Clinical Practice

Expands on the concepts of medical-surgical coursework with development of knowledge and skills in medical-surgical clinical areas. Emphasis is on the comprehensive use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** Consent of Associate Dean.

#### NURS 4348: Critical Care Clinical Practice

Expands on the concepts of critical care coursework with development of knowledge and skills in critical-care clinical areas. Emphasis is on the comprehensive use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** Consent of Associate Dean.

#### NURS 4501: Community Nursing

This course introduces concepts of community health utilizing the population focused nursing process. Emphasis is on health promotion, risk reduction, and disease management in selected community settings. **Prerequisites:** Successful completion of NURS 4212, NURS 4632, and NURS 4723 for generic students. Admission to the RN-BSN/MSN track for the RN student. (Credit: 2:3)

#### NURS 4631: Nursing Leadership and Management

This course presents concepts of nursing leadership, management and professional development. Emphasis is on the synthesis of skills, knowledge and attitudes to coordinate holistic, evidence based care in healthcare organizations. **Prerequisites:** Successful completion of NURS 4212, NURS 4632, and NURS

4723 for generic students. Successful completion of NURS 3303, NURS 3312, and NURS 3415 for the RN-BSN/MSN student. (Credit: 3:3)

#### NURS 4632: Medical/Surgical Nursing II

This advanced medical/surgical course expands on previously learned knowledge and skills acquired in prior nursing courses. Emphasis is on care of complex high acuity adult patients in selected settings. **Prerequisites:** Successful completion of NURS 3333, NURS 3513, and NURS 3611. (Credit: 3:3)

#### NURS 4723: Family Health

This course introduces holistic nursing care of childrearing families. Emphasis is on normal pregnancy and childbirth along with major health alterations during pregnancy and illness in children from birth through adolescence in selected settings. **Prerequisites:** NURS 3333, NURS 3513, and NURS 3611 (Credit: 4:3)

#### NURS 4199 - 4699: Independent Study

Independent study in specific areas of nursing not covered by organized undergraduate courses. A maximum of six credit hours for independent study courses may be applied toward an undergraduate degree. **Prerequisite:** Consent of Associate Dean.

# Physical Education (PYED)

#### PYED 3355: Developmental Games and Activities

Study of the use of play, games, dance and sport in facilitating motor development.

#### PYED 4340 Teaching Methods in Physical Education

Study and application of theory and development of skills related to effective instruction in physical education.

#### PYED 4156, 4256, 4356: Topics in Motor Performance

In-depth study of specific motor skills, including such aspects as underlying physiological and mechanical principles, training procedures, skill-development techniques, and instructional methods. May be repeated as topic varies, with up to six hours credited towards degree requirements. PYED 4356

# GRADUATE POLICIES AND PROGRAMS

#### Donna L. Dickerson, Dean

The University of Texas at Tyler provides graduate courses and degree and certificate programs for persons seeking to continue their studies past the baccalaureate and offers the following graduate degrees and certificates:

#### **Doctoral Programs**

U. T. Tyler offers the Ph.D. in Nursing, an on-line degree program, and the Ph.D. in Human Resource Development, an on-campus traditional doctoral program.

#### Master of Arts

Degree programs include majors in art, counseling psychology, early childhood education, English, history, interdisciplinary studies, political science, reading, school counseling, and special education. The program in interdisciplinary studies provides the student the opportunity to focus on courses from at least three fields.

#### Master of Business Administration

This thesis or non-thesis integrated program with a major in business administration includes courses in accounting, economics, finance, general business, management, and marketing.

#### Master of Business Administration/Master of Science in Mechanical Engineering

This coordinated MBA-MSME degree option incorporates content in management, economics, finance, and marketing into a framework for mechanical engineering.

#### Master of Education

Degree programs include majors in curriculum and instruction, early childhood education, educational leadership, health and kinesiology, reading, and special education.

#### Master of Public Administration

This non-thesis program includes courses in public management; public finance and budgeting; policy, analysis and evaluation, and research methods. Elective hours in fields such as political science, sociology, criminal justice and related areas are permitted.

#### Master of Science

Degree programs include majors in biology, civil engineering, clinical exercise physiology, clinical psychology, computer science, communication, criminal justice, electrical engineering, human resource development, industrial management, industrial safety, interdisciplinary studies, kinesiology, mathematics, mechanical engineering, and sociology The program in interdisciplinary studies provides the student the opportunity to focus on courses from at least three fields.

#### Master of Science in Nursing

This thesis or non-thesis program provides a firm basis for doctoral level education with several options including administration, education, and nurse practitioner routes. The RN-MSN degree option also is offered for registered nurses who may be eligible for early admission into the nursing graduate program.

#### Master of Science in Nursing / Master of Business Administration

This coordinated degree option incorporates content in management, economics, finance and marketing into a framework for nursing service and health care administration.

#### Graduate Certificate Programs

Post-baccalaureate certificate programs are offered in a limited number of fields. These programs are not part of a degree, however, coursework may be counted toward a degree with the approval of the College in which they are housed. Certificate programs are narrower in their focus than degrees and provide preparation in a specific field. Upon completion of the program the student is awarded a certificate in that field. The certificate is not the equivalent of a license or certification required for practice in the professions. The following certificate programs are offered:

Accounting Certificate Program: Refer to the College of Business and Technology in the Graduate Section of this catalog for details.

Nursing Education Certificate Program: Refer to the College of Nursing and Health Sciences in the Graduate Section of this catalog for details.

**Organizational Leadership and Consulting Certificate Program:** Refer to the College of Business and Technology in the Graduate Section of this catalog for details.

**Principal's Certificate:** Refer to the College of Education and Psychology in the Graduate Section of this catalog for details.

**Superintendent's Certificate:** Refer to the College of Education and Psychology in the Graduate Section of this catalog for details.

# GRADUATE POLICIES--GENERAL AND MASTER'S

(These policies apply to all graduate students unless otherwise stated. For policies specific to doctoral students and doctoral programs, refer to the Doctoral Policies following this section)

#### Graduate Courses Taken by Undergraduates

An undergraduate student at UT Tyler may take a maximum of 6 graduate credit hours to apply toward a graduate degree, subject to the following conditions:

- A. The student must be within 12 semester hours of graduation.
- B. Student must apply for undergraduate graduation.
- C. Enrollment in each graduate course must receive prior approval by the graduate coordinator or appropriate department chair of the college offering the course.
- D. The approval must be submitted by the student at registration.

## Graduate Admission Requirements

#### **Application Process**

A student seeking a graduate degree must fulfill the following in addition to the general graduate admission requirements:

- A. Complete and submit an application for graduate study and submit official transcripts from all schools attended
- B. Select a specific degree program
- C. Take the appropriate entrance examination for the selected degree program
- D. Satisfy the entrance examination, grade-point average and any other specific requirements for the selected degree program
- E. Receive official admission to the selected degree program

#### Admissions

The University of Texas at Tyler recognizes five categories of graduate admission at the master's level: Full Graduate Admission; Conditional Admission; Provisional Admission; Special Admission; and Non-Degree Seeking.

At the doctoral level, students may be admitted only under Full Graduate Admission or, under certain circumstances approved by the Dean of Graduate Studies, Conditional Admission.

#### I. Full Graduate Admission

A student seeking a graduate degree must fulfill the following admission requirements:

- A. Hold a baccalaureate degree from an accredited institution and, at least four weeks prior to the semester of initial enrollment, submit the following items:
  - 1. application for admission to a degree program. Only applications made online at http://www.applytexas.org will be accepted.
  - 2. official transcripts (sent directly from the institution) of all college and university-level work attempted, whether or not a degree was awarded.
  - 3. official scores for the required entrance examination.
- B. Contact the program graduate advisor to review specific entrance requirements of the selected degree program. The decision to admit a student is made at this program level.

Because some programs accept only a limited number of students, or do not have the faculty or facilities to accommodate a student's particular area of study, some applicants who exceed minimum requirements for admission may not be accepted.

#### II. Conditional Admission

This status is granted to applicants who have not satisfied, at the time of enrollment, the minimum GPA or test score requirements, or who have other deficiencies in their preparation. The status of conditional admission is established at the program level. An applicant who has been admitted conditionally will complete a degree plan with the graduate advisor that specifies the conditions to be met. The conditions may not include more than 9 hours of graduate work. Upon completion of the requirement(s), the student's academic record will be reviewed for consideration to be granted full graduate status.

NOTE: A student who completes nine graduate hours as a non-degree seeking student, may not subsequently be admitted conditionally to a graduate degree program.

#### III. Provisional Admission

This status is granted to those whose application files lack required items such as transcripts, official report of test scores, or verification of licensure. An applicant who has been admitted provisionally must contact the program graduate advisor to review specific entrance requirements of the selected degree program before being allowed to enroll. Provisional admission allows the applicant to enroll for only one semester with a maximum of nine (9) graduate hours. Provisional admission will not be continued beyond one semester.

NOTE: A student who completes nine graduate hours as a non-degree seeking student, may not subsequently be admitted provisionally to a graduate degree program.

#### **IV. Special Admission**

A student seeking teaching certification, a graduate certificate, or other graduate non-degree program (such as licensure) may be admitted as a special student. The student must submit a Graduate Application and meet all admission requirements set by the particular program. Individual programs determine the number of hours to be taken and other requirements. Students may enroll only in graduate courses required for the specific non-degree program. Registration is approved by the program advisor and College Graduate Coordinator. Graduate hours completed prior to admission as a special student may not be accepted by a particular program. If a student subsequently decides to pursue a degree, the selected degree program will determine which courses taken while classified as a special student will apply to the degree.

#### V. Non-Degree Seeking

A student who desires to take graduate courses for personal enrichment, for job advancement, or for transfer to another institution, may do so by completing a graduate application. Non-degree seeking students are limited to enrolling in a total of nine graduate hours unless approval is given by the advisor.

A maximum of nine graduate hours of UT Tyler credit earned as a nondegree seeking student may subsequently be applied toward a master's degree if approved by the degree-granting program. Individual programs may limit the number of hours applicable to the program.

A student who completes nine graduate hours as a non-degree seeking student, may not subsequently be admitted conditionally or provisionally to a graduate degree program.

### Academic Fresh Start

An applicant who has earned a baccalaureate degree under the "academic fresh start" statute, Texas Education Code, § 51.931, and applies for admission to a postgraduate or professional program will be evaluated only on the grade point average of the course work completed for that baccalaureate degree and the other criteria stated herein for admission to the postgraduate or professional program.

#### International Graduate Student Admissions

Applicants from countries other than the United States may be admitted to the university subject to the following regulations in addition to the general admission requirements:

- A. Accompanying the application must be an official English translation of the transcripts if the academic transcripts are in a foreign language.
- B. Results of the Test of English as a Foreign Language (TOEFL) must be submitted before admission will be granted.

A minimum score for graduate admission is 550 on the paper version, 213 on the old computer version, and 79 on the internet-based test. Information concerning the TOEFL may be obtained by writing to TOEFL, P.O. Box 899, Princeton, New Jersey 08540 U.S.A. The ETS institutional code for UT Tyler is 6850. There is no departmental code for TOEFL.

- C. An affidavit of support is required indicating the source of funds being made available to the student and the amount of money being provided and the length of time the funds will be made available.
- D. International students desiring to enter one of the graduate programs must be admitted to the graduate program before being admitted to the university.

International students holding a three-year bachelor's degree and who meet all other graduate admission requirements will be admitted to the University as undergraduate students.

The required transcripts and admission test must be placed on file prior to consideration.

- E. Holders of student (F-l) visas must be classified as full-time students. For international students, the minimum course load is 9 semester credit hours for graduate students.
- F. The filing deadlines for applications and the required documents to be received in the Office of Admissions are as follows:

May 31 for the fall semester, November 1 for the spring semester, and February 29 for the summer terms.

- G. Before registration applicants must present:
  - 1. Current passport or
  - 2. Resident alien card (green card) and a completed residence questionnaire to the Office of Admissions.
- H. International students holding non-immigrant visas are required to maintain approved comprehensive health insurance or coverage while enrolled at UT Tyler.

A health insurance fee will be assessed at the time of enrollment. The health insurance fee (currently \$220, subject to change) will be in the amount of the premium approved for the UT System Student Health Insurance Plan for the actual cost of the insurance and may not be paid through an installment plan.

## Student Seeking a Second Graduate Degree

A student who already holds a graduate degree from an accredited institution may pursue a second graduate degree. The second degree must open a new area, field, or major approved by the student's advisor.

With the exception of coordinated degree programs, the degree requirements for the second graduate degree must be satisfied without using courses applied to a previous degree. Credit applied to a previous degree which duplicates a portion of the program required under the second degree will not reduce the number of hours required for the second degree. Courses already taken would not have to be repeated, but additional course work would be substituted for such previously completed courses.

# Concurrent Enrollment in Two Master's Degree Programs

In unusual instances a student may be concurrently admitted to, and enrolled in, two master's degree programs. The student must satisfy all requirements for each degree and may not use more than 9 hours of course work from one degree to satisfy common requirements for the other degree. Course work that is used to satisfy common requirements for the two degrees must be approved by the advisor of each degree program, the college graduate coordinators, and the Dean of Graduate Studies.

# Transient Admission: Student Pursuing Degrees at Other Universities

Graduate students pursuing degrees at other colleges and universities who wish to take courses at the University may be admitted as transient students. The transient student application is available at the Office of Admissions, ADM 202.

A transient student who later wishes to be admitted to the University on a regular basis must apply for admission as a transfer student.

Students who attend the University as transient students and then are admitted on a regular basis are immediately subject to the University's academic regulations.

# Transient Admission: UT Tyler Students at Other Universities

After a student is admitted at UT Tyler, he or she should not register for any course(s) at any other institution until approval is granted. Approval by the student's advisor, department chair, dean, and University Registrar is required to assure that the courses taken at another institution will count toward the student's degree. The student should not register at another institution until the request for graduate transient admission form has been completed and approved. Forms for this purpose are available in the Office of the Registrar, ADM 221.

## Transfer of Graduate Credit

Transfer of graduate credit from a regionally accredited institution is limited to 9 hours for master's degrees. All transfer credit must have been completed with a grade of "B" or better and approved by the degreegranting program. Transfer credits should be evaluated and approved prior to the completion of the degree plan. Since the restrictions placed upon transfer work may vary from program to program, each graduate degree student should refer to the section of this catalog that details the requirements of the proposed degree.

### Scholastic Load

The minimum credit hour load to be considered a full-time graduate student is nine semester hours of graduate-level courses during a fall or spring semester or six hours during a regular summer session. The maximum credit hour load permitted is 12 hours during a fall or spring semester, six hours during each Summer I and II session, and six hours during Long Summer Session. However, total summer hours may not exceed 12. (Texas Administrative Code, Title 19, Part 1, Chapter 4, Subchapter A, Rule §4.6).

## Catalog Year

In order to graduate, a student must fulfill catalog requirements in effect at the time of admission to a graduate program; however, a student who is continuously enrolled must complete all requirements within seven years or be subject to degree requirements of a subsequent catalog. If a matriculated student has a break in enrollment at UT Tyler for 12 months or more, the student is required to complete a readmission application. If a student is readmitted, the applicable catalog is the one in effect at the time of readmission.

## Change of Program

If a student desires to change from one graduate program to another graduate program, the student must complete Change of Graduate Program form, which is available on the Graduate Studies web site at: http://www.uttyler.edu/graduate/graduate%20change%20of%20program%20f orm.pdf.

## **Course Enrollments**

The university reserves the right to cancel a scheduled course upon evidence of inadequate enrollment. Normally a minimum of five enrolled students is required in a graduate course.

## Grading System

At the end of each regular semester and summer session, grades are available to the student through the student information system by telephone or web access.

Grades, levels of performance, and grade points awarded for graduate credit at UT Tyler are as follows:

Grade	Level of Performance	Grade points
А	excellent	4
В	average	3
С	poor	2
D or F	failing	1

Most courses use the traditional grading system, providing grades of A through F. However, grading may take other forms, including:

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P/F	This grade may only be used for thesis or dissertation
	credit, special project, practicum, internship or other specialized course.
CR/NC	Credit/No courses as approved by the program. CR or
	NC may not subsequently be changed to a letter grade
	(See credit/no-credit option policy.)
Ι	indicates incomplete coursework (See incomplete policy.)
W	indicates withdrawal (See withdrawal policies.)
*	indicates a course subsequently repeated (see Repeating
	Courses and Grade Forgiveness policies below.)

There is a one-year time limit for grade changes (except Incompletes) and only the original instructor of the course may change a grade. CR, P and W designations may not be changed to letter grades. An "I" must be removed from the student's record within one semester. See specific sections that elaborate on the institutional policies concerning the designations CR/NC, I, Pass/Fail and W.

#### Calculation of Grade Point Average

Grades A, B, C, D, and F and the associated semester credit hours will be used to calculate grade point averages. The designations I, W, CR, and NC and the associated semester credit hours will not be used.

If a student repeats a course and requests grade forgiveness, only the last grade earned and the last semester credit hours attempted are used to compute the grade point average. If grade forgiveness is not requested, then both grades will be calculated and used to compute the grade point average (See Repeating Courses and Grade Forgiveness Policy). If the student receives a W or I in the repeated course, then the previous grade continues to be used to compute the grade point average.

#### Credit/No Credit Option

Students may elect to enroll in some courses on a credit/no-credit basis. Certain courses in the curriculum may be taken only on a credit/no-credit basis. Pre-professional students should note that many professional schools, e.g. law, count CR as a "C" and NC as an "F" in computing grade point averages. The following provisions apply to courses taken on a credit/nocredit basis:

- A. Special form requiring the signature of the student's advisor.
- B. The designation CR will not be changed to a grade of A, B, C, or D.
- C. The designation of CR and NC will not be used in calculating the grade point average.
- D. The designation CR will be counted toward the total number of hours passed.

#### Incomplete Policy

Course work is incomplete when a student fails to submit all required assignments or is absent from the final examination. The "I" may be assigned in lieu of a grade only when all of the following conditions are met: (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all course work due to unusual circumstances that are beyond personal control and are acceptable to the instructor; and (c) the student presents these reasons prior to the time that the final grade roster is due.

If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an incomplete (I) for the course.

Effective with incompletes earned in Fall 2009, the time limit in which the work must be completed may not exceed one semester (or full summer). Should the student fail to complete all of the work for the course within the time limit, the incomplete will be automatically changed to an "F." An "Incomplete" will not be used in calculating the grade point average for a student.

#### Pass/Fail Policy

To register for a class on a Pass/Fall basis, a student must have the signatures of his/her advisor and the instructor for the course.

- 1. Students may take only one course per semester for P/F credit. Students may take only three courses on a pass/fail basis during their graduate career at UT Tyler.
- The P/F option may not be used for any course that fulfills graduate degree requirements.
- 3. If you are on academic probation, you may not enroll in a course on a P/F basis.
- 4. A course cannot be changed from a P/F basis to letter grade or vice versa after the first five class days.
- 5. A final grade of P will not be changed to a grade of A, B, C, or D.
- 6. A final grade of P will be counted in the total number of hours passed.

#### Repeating Courses

A graduate student may repeat any graduate course previously taken at UT Tyler if the last grade received in the course was a C, D or F. Repeated courses may not be taken on a CR/NC or P/F basis. Students repeating a single course more than two times may be billed at a higher tuition rate. All grades will appear on the student's official transcript. Once the graduate degree has been awarded by UT Tyler, a student may repeat a course taken prior to graduation, but the repeated course will not be used to recalculate the grade point average.

#### Grade Forgiveness

A master's student will receive grade forgiveness (grade replacement) for only two course repeats during his/her graduate career at UT Tyler. Grade forgiveness means that only the last grade earned is used to compute the grade point average. However, all grades will appear on the student's official transcript.

Upon receiving a C, D or F, a student must file an intent to receive grade forgiveness with the registrar by the 12th day of class (see schedule of classes for date). Failure to file an intent to use grade forgiveness will result in both the original and repeated grade being used to calculate overall grade point average.

If a student attempts to repeat a course but withdraws and receives an automatic "W," the attempt counts against the grade forgiveness limit and the original grade remains.

A student may not exercise grade forgiveness for courses taken at UT Tyler and repeated at another college or university, nor may grade forgiveness be used when a course taken elsewhere is repeated at UT Tyler.

The grade forgiveness option may not be exercised to remove a grade awarded in a case of academic dishonesty. Once the degree has been awarded by UT Tyler, grade forgiveness may not be used to replace a grade taken before graduation.

#### Implementation

The grade forgiveness limit is not retroactive regarding grades already forgiven. The policy affects all students enrolled in Fall 2006 and thereafter, no matter when the course being repeated was originally taken.

#### Withdrawals/Drops

All students are encouraged to meet with their advisor and instructor prior to dropping a course. In addition, students should review the Academic Calendar located in the Schedule of Classes for "W" withdrawal/drop dates and the refund schedule. For more information regarding refunds, please see the Schedule of Refunds in this catalog. Students should be aware that dropping a course will affect their financial aid, and they should consult the Financial Aid Office prior to withdrawal. Students are encouraged to maintain a copy of their Withdrawal Form.

Students must withdraw in writing by one of the following methods:

- A. Fill out the Withdrawal Form available in the Registrar's Office.
- B. Send a Letter of Withdrawal to the Registrar's Office. The letter must contain the student's name, student ID number, the course(s) from which the student is withdrawing, the reason for withdrawing, and the student's signature. Letters may be mailed or faxed to the Registrar's Office. For mailed withdrawals, the effective date of withdrawal will be the date when the withdrawal is officially completed and recorded by the Registrar's Office. A copy of the withdrawal will be mailed to the student once the procedure has been completed.

#### **Dropping Courses Late**

No course may be dropped after the published "Last Day to Withdraw" unless the Office of Graduate Studies approves the student petition for a late drop. The petition must provide justification of extenuating circumstances that go beyond academic progress in the course.

#### Withdrawal for Active Military Service

If a student withdraws from an institution of higher education because the student is called to active military service, the institution, at the student's option, shall:

- 1. refund the tuition and fees paid by the student for the semester in which the student withdraws;
- 2. grant a student, who is eligible under the institution's guidelines, an incomplete grade in all courses by designating "withdrawn-military" on the student's transcript; or
- 3. as determined by the instructor, assign an appropriate final grade or credit to a student who has satisfactorily completed a substantial amount of coursework and who has demonstrated sufficient mastery of the course material. (See next page for Excused Absences for Active Military Service)

#### Readmission

A formal request for readmission is required whenever a student fails to register for twelve or more months or has an approved leave of absence for twelve or more months. To resume studies, students must submit an Application for Graduate Studies and a Petition for Reinstatement to the Office of Graduate Studies according to the following deadlines:

- July 1 for the fall semester
- December 1 for the spring semester
- April 1 for summer

Readmission is not automatic and will be reviewed carefully by the Office of Graduate Studies and the academic program prior to making a recommendation.

If a student is readmitted, the applicable catalog is the one in effect at the time of readmission.

#### Excused Absences

#### Excused Absence for Religious Holy Days

An institution of higher education shall excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

Any student seeking to be excused for religious observance, must provide written notification to the instructors at least two weeks\* prior to the date of the planned absence. At that time the instructor will set a date and time with the student when any make-up assignment or equivalent work will be completed. Make-up work will be mutually arranged; however, availability of the instructor will be given priority in setting the arrangements.

It is expected that students will not abuse the privilege of being absent from class for religious observance.

\*Events scheduled within the first month of an academic term may require a shortened lead time.

#### Excused Absence for Active Military Service

Any student who has been called up for military service after a semester begins should immediately provide the Registrar's Office and course instructors a copy of the military orders. Such students are excused from attending classes, turning in assignments, taking examinations or participating in any other required activity **if the absence is for no more than 25% of the total number of class meetings** (excluding final examination period). If the absence is for more than 25% of the class meetings, please refer to the policy on Withdrawal for Military Service.

Within 5 days of the student returning to UT Tyler from active service, he or she shall notify the Registrar's Office and course instructors. The student will be allowed to complete all assignments and examinations within a reasonable time as agreed upon by the course instructors and under the same requirements in effect when the student enrolled in the course.

Should any dispute arise as to the student's inability to complete assignments or examinations within a reasonable time after the absence, the student should first seek informal resolution with the faculty member, the department chair and then the dean of the college in which the course or courses are located. If an informal process is not successful, the student may institute a grade grievance process after the final course grade is recorded.

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#### Academic Grievances

Academic related grievances, such as disputes regarding grades, must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade. If the student is not satisfied with the decision, the student may appeal in writing to the appropriate Chairperson of the department from which the grade was issued. Grievances may then be appealed to the Academic Dean and the Vice President for Academic Affairs. Grade Appeal Forms are available in each academic dean's office.

#### **Discrimination Complaints**

Please see the appropriate section in the Student Affairs section of this catalog.

#### Student Records

Please see the Family Educational Rights and Privacy Act (FERPA) policy in the Undergraduate Policies Section of this catalog.

#### Probation/Suspension for Graduate Students

#### Graduate Academic Probation

A student who has a cumulative grade-point of less than 3.0 will be placed on academic probation. For the purposes of determining compliance with the policies of academic probation, the two summer terms are treated as one semester.

Students on academic probation must earn a minimum grade-point average of 3.0 or above in subsequent semesters until the cumulative grade point deficiency is removed. Failure to do so results in academic suspension. A student on probation should not register for more than six hours and must obtain his/her advisor's approval to register.

Grade points earned at other institutions are not used in computing the grade-point average and may not be used to remove a deficiency. A student who leaves the university on scholastic probation will be readmitted on scholastic probation even if he or she has attended another institution in the interim.

#### Graduate Academic Suspension

A master's student will be suspended from the university for one semester or full summer for failure to meet the terms of academic probation. A student suspended from the university for the first time must receive approval for readmission from the program advisor and the appropriate dean.

A student admitted to the university after having been suspended will be admitted on academic probation.

A second academic suspension will be for at least twelve months and readmission to the university will be granted only upon the approval of the program advisor, college graduate coordinator, appropriate college dean, and the Dean of Graduate Studies. Procedures for submitting a petition for readmission to the university may be obtained from the Registrar's Office. The petition must be received in the Office of Graduate Studies two months prior to the beginning of the semester in which the student wishes to enroll.

A third suspension will result in dismissal from the graduate program and the University.

#### Thesis

Several graduate degree programs at UT Tyler require a thesis. A student seeking a degree should consult the appropriate section of this catalog to determine if a particular degree requires a thesis.

#### Guidelines and Procedures

Students considering enrollment in a thesis course should obtain a copy of *Guidelines for Preparation of Thesis or Dissertation* at The University of Texas at Tyler" from the dean or graduate coordinator of the appropriate college. These guidelines describe procedures for typing, submitting, printing, and binding the thesis. Thesis guidelines may be found on the University website at the following address: http://uttyler.edu/graduate/thesisguide.pdf

#### Enrollment

Students required to write a thesis for their degree must register for a thesis course each semester, after research has commenced, until the thesis has been accepted.

#### Oral Defense of Thesis/or Thesis Substitute

If a thesis or thesis substitute is required, a final oral defense also may be required by the program. The oral defense should be held only after all members of the committee have had adequate opportunity to review a draft of the master's thesis/substitute. The advisor is responsible for determining that the draft is in an appropriate form for committee evaluation. If substantial revisions are necessary, they should be completed before the final oral defense is scheduled. The committee may, at the time of the final oral but no later, require alterations and corrections, but these should constitute relatively minor changes agreed to by a majority of the committee members. The advisor is responsible for verifying that the changes required by the committee have been made.

All committee members are expected to be present at the defense. The final oral is open to the public. A thesis/substitute is accepted only after the approval of a majority of the examining committee members. When the oral exam is passed and the thesis/ substitute is deemed ready for publication, all members of the committee sign the Master's Thesis/Substitute Approval Form and send the form to the Office of Graduate Studies.

#### Failure of Examinations

A master's candidate who fails the oral defense may not take the examination a second time until at least three months after the first attempt. A student who fails an examination for the second time becomes ineligible for further graduate work. Upon request from the student's director of graduate studies, The Office of Graduate Studies may grant a student a third and final opportunity to take the oral defense.

#### Thesis Submissions Deadlines

The final copy of the thesis, prepared under standards as defined in *Guidelines for Preparation of Thesis or Dissertation* must be submitted to the Office of Graduate Studies no later than two weeks before the last day of final exams of the semester of intended graduation. Once approved by the Office of Graduate Studies, the student pays a binding fee, and the receipt and copies of the thesis to be bound are taken to the UT Tyler Library. A CD Rom with a PDF version of the thesis is delivered to the Office of Graduate Studies. The PDF version must include a scanned copy of the signature page with all signatures present.

Theses are regarded as publications and will be made available to the public once they are approved and submitted to the Graduate School.

#### Grading Policy

A student registered for thesis who does not submit the approved thesis to the dean or graduate coordinator of the appropriate college before the thesis deadline for that semester will receive an incomplete "I" grade. Once the thesis has been accepted, previous incomplete "I" grades for thesis work will be changed to credit "CR". A maximum of six semester hours of thesis credit may be applied to the masters degree.

#### Approval

The completed thesis must be approved by the thesis advisor, and the college graduate coordinator or dean before the student will receive final certification for the degree.

#### Thesis Substitution

Some master's programs require a substitute for the thesis. Examples of substitutes include a journal article(s), technical report, case study, or

independent research project. The policies and procedures for completing the thesis substitute are determined by the program itself.

When students complete a thesis substitute, the advisor fills out and submits to the Office of Graduate Studies the Master's Thesis/Substitute Approval Form.

#### **Final Examination**

Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule.

### Graduation Guidelines and Procedures

#### Graduation Requirements--Master's

- A. Complete an approved degree plan within the first semester following admission to a program that identifies the transfer credit awarded and specifies any special requirements.
- B. Complete the total number of semester credit hours and other requirements of the degree plan (including transfer credit) within a sixyear period. Courses completed on a credit-granting basis (CR) may not be applied toward a graduate degree without approval of the graduate coordinator or the appropriate department chair.
- C. Earn a "C" or better in all courses applied to the degree.
- D. Earn a cumulative grade point average of 3.0 or higher on all work counted toward the degree.
- E. Pass the appropriate comprehensive examination(s) if required for the program.
- F. Submit an approved thesis if required. See Thesis in this section.
- G. Pay the non-refundable \$10 diploma fee in the cashier's office.
- H. Take the receipt to the Registrar's Office.
- I. File an Application for Graduation by the deadlines listed below: December graduation June 15 May graduation October 15 Summer graduation March 15

#### Verification of Degree

A degree will not be granted until all requirements have been verified. Incomplete grades listed on the graduation form, required transcripts from other institutions, and other evidence of outstanding requirements must be verified within 30 days following the commencement ceremony. If the requirements have not been verified by this date, the student must refile for graduation subject to the filing for graduation guidelines.

#### Time Limitation

Degree requirements for all master's programs at UT Tyler must be completed within a six-year period. Graduate credit transferred from another institution must meet the limitations imposed by each degree program. Exceptions to the six-year time limitation must be approved by the academic advisor, graduate coordinator for the college, and the University's Coordinator of Graduate Studies.

### Master of Arts and Master of Science Degrees in Interdisciplinary Studies

The Master of Arts and the Master of Science degrees in interdisciplinary studies are intended for persons desiring graduate studies in a wider range of fields than normally possible in a program with a traditional major. The student's background and goals are considered in the design of the individual degree plan.

#### Admission Requirements

The following are required for admission:

A. Submit a satisfactory score on the Verbal and Quantitative sections of the Graduate Record Examination (GRE).

- B. Have a minimum grade-point average (GPA) of 2.5 on the last 60 hours of upper- division course work and a 3.0 on all graduate work taken.
- C. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

#### **Degree Requirements**

The Master of Arts or Master of Science degree designation will be determined by the student's advisor according to the first field emphasis of the student's degree plan. Specific requirements for both degrees follow:

- A. A total of 36 semester hours of graduate work. No more than six semester hours of undergraduate courses approved for graduate credit may apply to this degree. A student may transfer a maximum of 9 semester hours of graduate credit in which a grade of "B" or better has been earned from approved institutions. All transfer work is subject to approval by the student's advisor.
- B. From the alphabetical list below, the student must select a minimum of 12 hours of course work in the first field and a minimum of six hours each in the second and third fields. A maximum of 18 hours in any one field may be applied to these degrees. Please note: Not all programs below accept students into the first field; check with the graduate advisor

First, Second, Third fields available	Second and Third Fields Only
Allied Health Science	Art
Chemistry	Communication
Computer Science	Criminal Justice
English	History
Mathematics	Philosophy
Music	Political Science
Psychology	Public Administration
	Sociology

- C. Electives may be chosen from any field with the advisor's approval.
- D. A minimum grade-point average of 3.0 in each of the three selected fields and a minimum grade-point average of 3.0 in all graduate work. No course with a grade below "C" may be applied toward this degree.
- E. No more than six semester credit hours in independent study courses. If English or history is chosen as the student's first field, no more than three semester hours of travel/study courses may be applied to the first field.
- F. Successful completion of a written, comprehensive examination over the fields of study shown in the degree plan, excluding electives. This examination will be administered and evaluated by the student's examination committee (see below).

#### **Examination Committee**

The examination committee must have a minimum of three faculty members including the student's chief advisor, who chairs the committee and is a faculty member in the predominant field of the student's degree program, and one faculty member from each of the remaining two fields of that program.

# GRADUATE POLICIES--DOCTORAL

The policies and requirements outlined in this section of the catalog apply without exception to all departments or programs at the University of Texas at Tyler that offer doctoral degrees. The Office of Graduate Studies and the Graduate Council work closely with departments and programs to coordinate degree requirements and to ensure that they are fairly and equitably applied.

For a detailed set of doctoral policies and procedures, students should download the *UT Tyler Graduate Handbook* at http://www.uttyler.edu/graduate/gradhbk.pdf

#### Doctoral Excessive Hours Fee ("99-Hour Rule")

All doctoral students (regardless of state residency classification) who exceed 99 hours of doctoral coursework will be required to pay out-of-state tuition. Doctoral coursework is any coursework taken by a student seeking a doctoral degree after the completion of an initial 30 semester hours of graduate credit (typically master's level work, regardless of whether the hours are taken as part of a master's degree, as a non-degree seeking student, certificate work, or as part of the doctoral program). (*See Texas Education Code* Sec. 61.046 (l))

This rule applies to all students admitted to a doctoral program at UT Tyler. This tuition structure applies to Texas residents as well as out-of-state residents and international students who were eligible to be charged tuition at the resident rate as a result of scholarship, fellowship awards, or employment as Graduate Assistants.

### Program of Study

All doctoral programs consist, at minimum, of a coherent set of courses and other educational experiences, a Preliminary Examination for Candidacy, a dissertation, and a Final Oral Defense. Students must satisfy not only their departmental requirements, but also any additional requirements specified by the Office of Graduate Studies.

#### Foreign Language Requirements

The Office of Graduate Studies has no foreign language requirement for doctoral degrees; however, knowledge of one or more foreign languages may be required by individual doctoral programs.

### Admissions

The University of Texas at Tyler admits students to its Ph.D. programs under the Full Admission criteria. Conditional Admission may be considered under certain circumstances with the approval of the program and the Office of Graduate Studies.

#### I. Full Doctoral Admission

Students seeking a doctoral degree must fulfill the following admission requirements:

- A. Hold a baccalaureate degree from an accredited institution.
- B. Have of at least a 3.00 grade point average in all upper-division (junior- and senior-level) coursework, or a 3.00 grade point average in the last graduate degree earned.
- C. Satisfy any additional requirements (official entrance examination scores, essay, grade-point average, letters of recommendation, etc.) for the selected degree program. If the GRE is required, the test must have been taken within the past 5 years.
- D. Additional consideration for admission will be based upon the applicant's demonstrated commitment to his or her chosen field of study, involvement and level of responsibility in non-academic matters including extracurricular activities, employment, community service, and socioeconomic background.

#### II. Conditional Doctoral Admission

Under certain circumstances and with the approval of the doctoral program and the Office of Graduate Studies, a student may be admitted conditionally. This status is granted to applicants who, at the time of enrollment, require leveling work or additional courses to prepare them for doctoral work. An applicant who has been admitted conditionally will complete a degree plan with the graduate advisor that specifies the conditions to be met. The conditions may not include more than 9 hours of graduate work. Upon completion of the requirement(s), the student's academic record will be reviewed for consideration to be granted full doctoral admission.

Because some programs accept only a limited number of students, or do not have the faculty or facilities to accommodate a student's particular area of study, some applicants who exceed minimum requirements for admission may not be accepted.

#### Transfer of Graduate Credit

Transfer of graduate credit from a regionally accredited institution is limited to 20% of the total hours required for the doctoral degree. Hours transferred into a doctoral program should represent credit earned after the award of the master's degree. Exceptions to the number of hours transferred may be requested by the program to the Dean of Graduate Studies. Only credit with a grade of "B" or better may be transferred.

Credit earned more than six calendar years before admission to the program will not be accepted for transfer. A graduate program may request the Dean of Graduate Studies to approve additional transfer credit. The program will determine what courses, if any, are accepted for transfer. The doctoral student may be examined on all transferred courses at the time of the doctoral preliminary examinations.

Transfer work does count toward the 99-Hour Rule for tuition purposes. See above for state law regarding the 99-Hour Rule.

### University Requirements for Doctoral Degree

- A. Satisfactory completion of all coursework required by the plan of study.
- B. Satisfactory completion of the Preliminary Examination
- C. Registration for at least three credit hours during the semesters in which he Preliminary Examination and the Oral Dissertation Defense are taken and during the semester in which graduation is expected.
- D. Completion of the required residency requirements before Candidacy is awarded.
- E. Graduate cumulative grade point average of at least 3.0
- F. Satisfactory completion of the Oral Dissertation Defense.
- G. Submission of both a hard copy and electronic version of the approved dissertation, a separate copy of the dissertation abstract, copy of Human Subjects or Animal Subjects approval form (if required), Survey of Earned Doctorates, payment of the doctoral hood and thesis binding fees.
- H. Completion of Ph.D. degree requirements within five years after being admitted to candidacy.

### **Residency and Enrollment Requirements**

The doctoral degree is granted in recognition of high attainment in a specific field as demonstrated by passing coursework, the successful completion of required examinations and the successful defense of a dissertation based on original research. Consequently, the University does not specify a minimum number of courses or credits that must be completed for the degree.

#### Residency Requirement

The residency requirement provides students an opportunity to be engaged in concentrated study over an extended period of time in association with faculty and other students in an atmosphere conducive to a high level of intellectual and scholarly activity.

Doctoral students must be registered for nine (9) hours each semester at UT Tyler for a minimum of two consecutive semesters or six (6) hours each semester for three consecutive semesters (not necessarily including summer). However, the student does not necessarily have to be physically present on campus (for example, the student may be taking courses over the internet or doing field research). The residency requirement must be met prior to admission to candidacy.

Hours taken as part of a master's degree or during conditional admission status may not count toward the residency requirement.

#### Time Limit

All requirements for the doctoral degree must be completed and the degree awarded within a maximum of nine years from the term of full doctoral admission, and within five calendar years from the term after the student passes the preliminary oral examination.

(Example: if the date of admission is Fall 2008, the nine-year time limit ends Summer 2017. If the student in this example is admitted to candidacy in March 2010, the time to degree expires at the end of the spring semester 2015). When extenuating circumstances warrant, the Dean of Graduate Studies may grant an extension for one year. The student must complete the Request for Extension of Time Form and receive approval from the major advisor/dissertation chair and the program's graduate director, who forwards the request to the Dean of Graduate Studies.

#### Interruption of Study for Military Service

See, General Graduate policies at the beginning of this chapter related to withdrawal for Military Service. Upon returning from military service, the student must complete an Application for Graduate Studies and a Petition for Reactivation.

#### Leave of Absence

A student in good academic standing may request a leave of absence from graduate study for up to one year for any of the following reasons: childbearing, adoption, illness, or critical care of child, spouse or parent

To be eligible for a leave of absence, a student must not have received an extension of the time limit for the degree, must not have any Incomplete ("I") grades, and must be in good academic standing.

If the leave of absence is approved, the time of that leave will not count against the total time allowed for the degree. Ordinarily, a leave of absence may not be renewed.

To request a leave of absence, a student must complete and submit a Request for Leave of Absence Form and receive approval from the major advisor/dissertation advisor and the program's graduate director, who forwards the form to the Dean of Graduate Studies.

Upon returning from a leave of absence, the student must complete an Application for Graduate Studies and a Petition for Reactivation.

#### Inactive Status

A student not yet admitted to candidacy who has not enrolled for two consecutive calendar years and has not been granted an extension or a leave of absence will be placed in inactive status.

In order to resume graduate studies, the student must complete an Application for Graduate Studies and a Petition for Reactivation and meet all admission requirements in force at the time of the new application. Readmission under these circumstances is not guaranteed, however. If readmitted, the student will be subject to all program requirements in force at the time the student is readmitted.

Doctoral candidates who have not enrolled for two consecutive calendar years, have not graduated by the end of the five-year candidacy period, or have not been granted an extension or a leave of absence will be placed in inactive status and their candidacy revoked.

To resume studies, the student must complete an Application for Graduate Studies and a Petition for Reactivation and receive approval from the dissertation chair, the program's graduate director and/or Graduate Program Committee, and the Dean of Graduate Studies.

Readmission is not guaranteed, however. The faculty in the major field and/or the Dean of Graduate Studies may set any readmission conditions deemed necessary, such as, but not limited to, registering for additional coursework, retaking examinations, filing a revised doctoral proposal, or completing the degree within a specified time period.

### **Grading Policies**

(See general graduate policies at the beginning of this chapter)

#### Repeating a Course

Doctoral students may repeat a 5000- or 6000-level course if the original grade earned was a C, D, or F. The course may be repeated only once and the original grade continues to be included in the computation of the graduate point average. There is no grade replacement at the doctoral level. Individual programs may have limits on the number of times a student may repeat courses.

### Probation/Suspension for Doctoral Students

#### Academic Probation

A doctoral student who has a cumulative grade-point of less than 3.0 will be placed on probation. Students on academic probation must earn a minimum grade-point average of 3.0 or above in each subsequent semester of enrollment (including summer, if registered) until the cumulative grade point deficiency is removed.

Students have two semesters to remove themselves from probation. Failure to do so results in academic suspension. A student on probation should not register for more than six hours and must obtain his/her advisor's approval to register.

Grade points earned at other institutions are not used in computing the grade-point average and may not be used to remove a deficiency. A doctoral student who leaves the university on probation will be readmitted on probation even if he or she has attended another institution in the interim. However, readmission as a degree-seeking student is not guaranteed.

#### Academic Suspension

A doctoral student who fails to make satisfactory academic progress may be dismissed from the doctoral program. Failure to make satisfactory progress may be the result of, but not limited to, failure to raise grade point average to 3.0 within the subsequent two semesters, poor performance on preliminary exams, unsatisfactory research progress, or inability to meet other degree requirements.

Although cases of improper conduct of research or unprofessional behavior are addressed according to other University procedures, these behaviors may also result in dismissal from the University.

For details regarding doctoral committees, preliminary examinations, dissertation and dissertation defense, etc. please refer to the UT Tyler Graduate Handbook at http://www.uttyler.edu/graduate/gradhbk.pdf

#### Application for Candidacy

Provided that the student has completed all required coursework, has no "incomplete" grades, has satisfactorily completed all portions of the preliminary examination, and is in good academic standing, the student is admitted to candidacy for the doctoral degree. Candidacy is effective at the end of the semester in which the signed

Recommendation for Candidacy form is submitted to the Office of Graduate Studies. A notation-- "Advanced to Candidacy for Doctorate"-will appear on the student's transcript.

#### Dissertation

All doctoral candidates are required to complete and defend a dissertation. Only students who have been admitted to candidacy may register for dissertations hours. The University requires a minimum of 9 hours of dissertation credit; however, most doctoral programs require more hours.

The dissertation is an independent scholarly contribution to knowledge in the student's area of specialization. By researching, writing, and defending a dissertation, the student demonstrates a high level of knowledge in the chosen field and the ability to conduct independent research.

Dissertations are regarded as publications and will be made available to the public once they are approved and submitted to the Graduate School. In order to protect patent or other intellectual property rights, the Dean of Graduate Studies may, upon request, delay for a period of up to one year the binding, distribution, and/or publication of the dissertation. This request must be supported by a written recommendation of the Supervising Professor.

Doctoral candidates are required to register for a minimum of 3 credits of dissertation during each semester until the dissertation is accepted by the Office of Graduate Studies. (See, Enrollment Requirements)

#### Animal and Human Subject Approval

Federal regulations and University policy require that all investigations using animal or human beings as subjects of research be reviewed and approved by the appropriately constituted committees before such investigations may begin. No dissertation based on the use of animals or human beings as subjects can be accepted without prior review and approval handled in accordance with University procedures. The faculty advisor requests such a review, where needed; however, each student should check to ascertain whether the review is required, and if so, the requirements for the review.

# GRADUATE COLLEGE OF ARTS AND SCIENCES

#### Dr. Alisa White, Interim Dean

The College of Arts and Sciences offers discipline specific masters degrees in Art, Biology, Communications, Criminal Justice, English, History, Mathematics, Political Science, Public Administration, and Sociology. The College also participates in the Master of Arts and Master of Science degrees in Interdisciplinary Studies. The College also offers courses leading to an endorsement in English as a second language.

# Master of Arts and Master of Science in Interdisciplinary Studies

The Master of Arts and the Master of Science degrees in interdisciplinary studies emphasize study in a wider range of fields than is normally possible in a program with a traditional major. The student's background and goals are considered in the design of the individual degree plan.

Disciplines within the College that may be chosen as one of the three required fields are listed in the general graduate section of this catalog.

# Department of Art and Art History

#### Gary Hatcher, Chair

The Department of Art and Art History offers graduate degrees in studio art as well as art history. The Master of Fine Arts in Studio Art, Master of Arts in Art and Master of Arts in Art History degrees develop leadership in an increasingly complex and dynamic art world by enhancing knowledge and skill in the field of art. The curriculum provides the student with the opportunity to develop deeper understanding in the areas of media specialization as well as in aesthetics and criticism, art history, management, marketing, and logistics. A course of graduate study is determined through close communication with the Department of Art and Art History graduate advisor.

### Master of Fine Arts (MFA) in Studio Art

#### Admission Requirements

In addition to the general requirements for admission to graduate study at the University of Texas at Tyler, the following are required for admission into the MFA program.

**Unconditional Admission**: The following requirements must be met by all students for unconditional admission:

- A. baccalaureate degree from an accredited college or university.
- B. grade-point average of 3.0 on a 4.0 point scale on all prior advancedlevel (junior, senior, and graduate) work.
- C. an original writing sample to show competence in handling the English language via research, criticism, discovery, or imagination. Requirement may be met with new or previous work.
- D. completion of the appropriate applications for graduate admission to the University.
- E. completion of at least 70 hours undergraduate preparation in art. Course prerequisites for admission are commensurate with the minimum upper-division field requirements of most B.F.A. studio emphasis programs. (Fulfillment of prerequisites is subject to approval by the Faculty Review Committee. The Committee may require leveling work if the student is deemed to lack specific studio courses at the undergraduate level). upper division studio 42

upper division studio	42
upper division art history	9

additional art electives	18
senior exhibition	1
Total	70

- F. Submission of a Portfolio. Portfolio should consist of 20 individual images on a CD. Digital submissions should be accompanied by a list containing the artist's name, title, dimensions, media, and date of completion. Three-dimensional works may include multiple views/details.
- G. one page typed statement of intent regarding the purpose and rationale for graduate study
- H. vita/resume
- I. an artist statement describing the applicant's aesthetic interest or direction
- J. three letters of recommendation
- K. interview with the Art Faculty Review Committee that demonstrates maturity and direction in the individual's work or shows promise sufficient to begin the program.
- L. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

**Probationary Admission:** Upon recommendation of the faculty, those students who do not meet requirements for unconditional admission, will be required to complete nine hours of graduate studio art after which they will undergo a review of portfolio after completing 9 hours of graduate course work in art.

#### Degree Requirements

The Master of Fine Arts degree in Studio Art is a 60-hour degree terminating in a graduate thesis exhibition. Students may select from either the two-dimensional or three-dimensional track. With approval of the graduate advisor, up to six hours of transfer graduate credit with a grade of "B" or better may apply towards this degree.

A. studio work to be chosen from one of two tracks	39
(two -dimensional or three- dimensional)	
B. graduate art history	12
C. thesis/exhibition	9
Total	60

All students are required to undergo a portfolio review after 15 hours of graduate course work in visual art. Students may be dismissed from the program if the Faculty, upon portfolio review, deem the student's progress not sufficient, or that the portfolio holds insufficient potential.

For students admitted under Unconditional Admission, the Portfolio Reviews occurs after completion of 15 hours. For student admitted under Probationary Admission, Portfolio Reviews are conducted after completion of the first 9 hours and again, after completion of 15 hours. Recommendations for actions will be at the discretion of the Faculty.

Students must maintain a grade point average of 3.0 or higher (on a 4.0 scale) on all graduate work at UT Tyler. Students may be dismissed if their GPA falls below 3.0 for more than three semesters. Any grade below a "C" will not count toward the completion of the MFA.

Residency requirements: two long term semesters of 9 hours each.

Graduate students should take no more than 9 hours in a regular term and 6 hours during summer terms.

## Master of Arts in Art History (MA)

The Masters of Arts in Art History degree program develops scholars and professionals who are knowledgeable about a wide range of art, from Ancient to Contemporary. Students develop a deep understanding of historical context, formal and stylistic development, as well as the relevant aesthetic theories and scholarly methodologies that define the discipline. Courses in art history teach students to speak and write clearly and creatively about art through the ages. The M.A. program prepares scholars who plan to continue their graduate education, or who plan to pursue a career in teaching, museums, or arts management.

### Admission Requirements

Prerequisites and Admission Requirements

- A. Minimum upper-division requirements equivalent to UT Tyler's B.A. degree in Art History.
- B. A minimum 3.0 grade-point average
- C. An original research paper showing competence in handling the English language.
- D. A one-page typed statement of intent regarding the purpose and rationale for graduate study.
- E. Curriculum Vita
- F. Three academic letters of recommendation

#### **Degree Requirements**

The M.A. in Art History is a 36-hour degree program. Students complete a 6-hour set of Core Courses, 24 hours in art history, and 6 hours of thesis. Graduate students should take no more than 9 hours in a regular term and 6 hours during summer terms.

1. Core Classes required of all students (6 hours)

ART 5337: Theory and Research Methods in Art History

ART 5336: Aesthetics and Criticism or ART 5394: Contemporary Issues

2. Art History Electives (Students choose 24 hours from the following)

ART 5326: Arts Management and Marketing

ART 5330: Adv. Studies in Art History and Crit.

ART 5342: Graduate Studies in Medieval Art

ART 5343: Graduate Studies in Greek and Roman Art

ART 5345: Graduate Studies in Renaissance Art

ART 5346: Graduate Studies in Baroque and Rococo Art

ART 5347: Graduate Studies in Nineteenth-Century Art

ART 5348: Graduate Studies in Art in America

ART 5349: Graduate Studies in Twentieth-Century Art

ART 5390: Selected Topics

ART 5394: Contemporary Issues

- ART 5399: Independent Study
- ART 5687: Field Experience in Art
- 3. Thesis (6 hours)

ART 5395 and 5396: Thesis

#### Additional Requirements

1. Residency Requirement: two long term semesters of 9 hours each.

- 2. Language Requirement: Students must be proficient in German, French, or another language in consultation with a professor. The language requirement can be fulfilled concurrently with the degree program. Students are required to pass one of the following:
  - a. An oral and written proficiency exam given by the Department of Language and Literature (Spanish, French, or Latin)
  - b. A nationally standardized examination (such as the MLA Cooperative Foreign Language Test) in their chosen language
  - c. Receive a grade of "B" or higher in four semesters of college-level classes in a single foreign language.

### Master of Arts in Art

The M.A. in Art provides academic preparation for those pursuing professional careers in the visual arts, teaching, museum positions, and will develop critical understanding of art, aesthetics, and cultural education. Students will develop: broad based knowledge and skills in studio media (with emphasis on either two- or three-dimensional); personal aesthetic; understanding of movements and concepts in art history; an ability to analyze formal issues and apply accurate terminology to that analysis; abilities to exhibit knowledge of art historical scholarship and methodology verbally and in written form; abilities to organize an exhibition of their art works.

The M. A. in Art is a 36-hour degree program. Students complete a 9-hour set of Core Courses, 21 hours in one of three tracks (threedimensional, two-dimensional or art history); and 6 hours of thesis or exhibit.

# Department of Biology

#### Dr. Don Killebrew, Chair

The Department of Biology offers the Master of Science in Biology and participates in the Master of Arts and Master of Science programs in Interdisciplinary Studies.

## Master of Science in Biology

The Department of Biology offers graduate studies leading to the degree of Master of Science in Biology. The program is designed to provide graduate education for students who intend to pursue vocations in industry, government, teaching, and further graduate education leading to the doctorate. The M.S. degree provides course work with an emphasis in the following areas: 1) genetics, 2) physiological ecology, 3) ecology, 4) behavior, 5) biosystematics, 6) herpetology, 7) entomology, 8) biogeography, 9) ornithology, and 10) formal research with thesis. This program is designed for students preparing for careers requiring analytical, research, and problem solving skills.

#### Master of Science in Biology--Total Semester Hours=30

#### Admission Requirements

In addition to the general requirements for admission to graduate study, the requirements for admission to the Master of Science in Biology are as follows:

- A. A satisfactory score on the General Test (verbal, quantitative, and analytical) of the Graduate Record Examination (GRE). Students who do not have satisfactory scores on the Graduate Record Examination may be admitted under the condition that they obtain a grade of "B" or higher on a prescribed set of undergraduate and/or graduate courses that are approved by the department.
- B. A satisfactory score on the Biology Subject Test of the GRE
- C. A satisfactory grade point average on all prior advanced (junior, senior, and graduate) work taken
- D. The equivalent of bachelor's degree in science with a major in biology from The University of Texas at Tyler
- E. A proficiency in the use of the English language. If a student's verbal score on the General Test of the GRE is below an acceptable minimum, the student must pass an English proficiency test.
- F. Approval by departmental chair
- G. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

#### Degree Requirements

Each candidate for the degree must complete:

- a minimum of 30 semester hours of graduate credit including six hours of thesis (BIOL 5395, BIOL 5396)
- B. a core curriculum of BIOL 5384, BIOL 5366, BIOL 5390, BIOL 5333/5133, BIOL 5304, BIOL 5101 and BIOL 5102.

#### Graduation Requirements

Candidates for the master's degree in biology must also meet the following requirements:

- A. a minimum grade point average of 3.0 on all course work. Only grades of "B" or better can be applied towards the degree.
- B. satisfactory performance on a final comprehensive oral and/or written examination covering the core courses, thesis, and other academic or laboratory components of the student's program selected by the student in conjunction with the graduate advisory committee.

# Department of Communication

#### Dr. Dennis Cali, Chair

The Department of Communication offers the Master of Arts in Communication degree. This communication degree provides academic preparation for those pursuing professional careers in speech communication, teaching, and journalism, and will develop critical understanding of communication, aesthetics and cultural education. The department also participates in the Master of Arts and Master of Science degree programs in Interdisciplinary Studies and offers elective courses for students seeking other graduate degrees. The Interdisciplinary Studies degree program is in the graduate section of this catalog.

The Master of Arts in Communication focuses instruction in two areas: journalism and speech communication. This course of study is designed to 1) prepare students for matriculation to doctoral programs in communication, 2) train degree recipients for teaching responsibilities at the junior college level, and/or 3) provide professional competencies for private and public sector employment.

# Master of Science in Communication

Master of Arts in Communication--Total Semester Hours=36

#### Admission Requirements

In addition to the general requirements for admission to graduate study, the requirements for admission to the communication program are as follows:

A. A baccalaureate degree from an accredited college or university.

- B. A satisfactory score on the General Test (verbal, quantitative, and analytical) of the Graduate Record Examination (GRE). The GRE should be completed prior to the conclusion of the first long semester of enrollment.
- C. A minimum grade point average of 3.0 on a 4 point scale on all upperdivision course work.
- D. Two favorable letters of recommendation.
- E. Additional consideration for admission will be based upon the applicant's demonstrated commitment to his or her chosen field of study, involvement and level of responsibility in non-academic matters including extracurricular activities, employment, community service, and socioeconomic background.
- F. Students who do not have a journalism or speech communication major or minor in their undergraduate studies may be required to take leveling courses as determined by the communication graduate faculty.

#### Degree Requirements

All candidates for the Master of Arts degree in communication must meet the following requirements:

- A. Completion of a minimum of 36 hours of graduate credit with a cumulative grade-point average of 3.0 in all course work applied towards the degree.
- B. No more than six semester hours in independent study courses may be applied to this degree.
- C. A grade of "B" or better in each core course.
- D. Satisfactory performance on a comprehensive written and/or oral examination, to be taken during the student's last semester of enrollment, over the work covered in his or her degree program (see specific requirements of thesis and non-thesis options below).
- E. Students choosing the thesis option must submit a standard master's quality thesis involving original research and satisfactorily defend the thesis.
- F. Students choosing the non-thesis option must complete 36 hours of coursework and satisfactorily complete a comprehensive examination over coursework taken.

#### Course Requirements

<b>Core Courses</b> (15 H1	rs.)
COMM 5300:	Human Communication Theory
COMM 5305:	Theories of Mass Communication
COMM 5307:	Quantitative Methods of Investigation
COMM 5325:	Qualitative Methods of Investigation
COMM 5351:	Freedom and Responsibility of Communication

Elective Courses (15 hrs. for Thesis Option; 21 hrs. for Non-Thesis Option)

COMM 5301:	The Literature of Journalism
COMM 5302:	Seminar in Rhetorical Criticism
COMM 5303:	Public Opinion and Propaganda
COMM 5315:	Mass Media and Popular Culture
COMM 5328:	Leadership and the Group Process
COMM 5329:	Topics in Communication Theory
COMM 5330:	Gender and Communication
COMM 5335:	Seminar in Organizational Communication
COMM 5340:	Seminar in Intercultural Communication
COMM 5345:	New Media Theories and Applications
COMM 5350:	Nonverbal Communication
COMM 5399:	Independent Study

#### Thesis Option (6 hrs)

COMM 5395:	Thesis I
COMM 5396:	Thesis II

# Department of History

#### Dr. Mary Linehan, Chair

The Department of History offers the Master of Arts degree in history; participates in the Master of Arts and Master of Science degree programs in interdisciplinary studies and offers elective courses in history for students seeking other graduate degrees.

#### Master of Arts in History

The Master of Arts degree in history emphasizes instruction in the following areas: (1) Europe to 1715; (2) Europe since 1715; (3) United States to 1877; and (4) United States since 1877. The program is designed for students wishing to pursue graduate study in history. It may also serve those who wish to pursue elementary, secondary, or junior college teaching careers.

#### Master of Arts in History--Total Semester Hours=36

#### Admission Requirements

- A. A baccalaureate degree from an accredited college or university
- B. A satisfactory score on the General Test of the Graduate Record Examination (GRE) should be completed prior to enrollment.
- C. A satisfactory grade point average on all prior upper-division work (Minimum GPA 3.0)
- D. A minimum of 12 hours of upper-division history courses

E Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

#### Degree Requirements

A total of 36 semester hours of graduate work is required. A student may transfer a maximum of six semester hours of graduate work in which a grade of "B" or better has been earned from approved institutions. All transfer work is subject to approval by the student's advisor. No more than six semester hours in independent study courses and six semester hours in travel/study courses may be applied to this degree.

**OPTION I: With Foreign Language and Thesis** 

**OPTION II: Without Foreign Language and Thesis** 

A. Reading seminars—one in each of the following areas	12
European history to 1715	
European history since 1715	
United States history to 1877	
United States history since 1877	
B. Research seminar	3
C. Historiography—HIST 5394	3
D. Thesis (Option I only)—HIST 5395 and 5396	6
E. Other History Courses	12-18
Option I	12
Option II	18
Total	36

#### Graduation Requirements

- A cumulative grade point average of 3.0 in all graduate history work attempted
- Β. Successful completion of a written comprehensive examination
- Foreign language (Option l only)-Two semesters, or demonstrated C reading knowledge, of a single foreign language.

# Department of Literature and Languages

#### Dr. Hui Wu, Chair

The Department of Literature and Languages offers a Master of Arts degrees in English, participates in the Master of Arts degree in interdisciplinary studies, and offers elective courses for students seeking other graduate degrees. The interdisciplinary studies degree program is in the graduate section of this catalog.

### Master of Arts in English

The Master of Arts degree in English emphasizes instruction in grammar and history of the language, composition, English literature, American literature, and continental literature. The program is designed for teachers and others who anticipate the need for extensive knowledge of language and literature.

#### Master of Arts in English--Total Semester Hours=36

#### Admission Requirements

- A. A baccalaureate degree from an accredited college or university
- B. A satisfactory score on the General Test (verbal, quantitative, and analytical) of the Graduate Record Examination (GRE). The GRE should be completed prior to the first long semester of enrollment. Students who do not have satisfactory scores on the GRE may still be admitted upon the condition that they obtain a grade of "A" in the following two courses: ENGL 5300 and ENGL 5390. Both courses should be completed before the student has finished twelve hours of graduate classes.
- A minimum grade point average of 3.0 on a 4 point scale on all upper-C. division course work.

- D. A minimum grade point average of 3.0 on a 4 point scale on 21 hours of undergraduate English courses including at least twelve hours of upper-division work.
- E. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

#### Degree Requirements

A total of 36 semester hours of graduate work is required. No more than six semester hours of undergraduate courses approved for graduate credit may be applied to this degree. No more than nine hours of graduate credit in which a "B" or better has been earned may be transferred from another institution. All transfer work is subject to approval by the student's advisor. No more than six semester hours in independent study courses and six semester hours in travel/study courses may be applied to this degree.

#### Option 1: Master of Arts in English with Thesis

A. ENGL 5300: Bibliography and Methods of Research*	3
B. ENGL 5305: Chaucer and Middle English Literature	3
C. One of the following	3
ENGL 5388: History and Practice of Rehtoric ENGL 5379: History of the English Language ENGL 5380: Advanced Grammar and Linguistics ENGL 5390: Studies in Composition	
D. ENGL 5370: Studies in World Literature	3
E. American Literature	6
F. English Literature	6
G. Two additional courses, which may be in related disciplines	6
H. ENGL 5395 Thesis	3
I. ENGL 5396 Thesis	3

#### 36 Semester Credit Hours

36

\*Should be taken as soon as possible upon entering the program.

#### Option II: Master of Arts in English Without Thesis A. ENGL 5300: Bibliography and Methods of Research\* 3 B. ENGL 5305: Chaucer and Middle English Literature 3 3 C. ENGL 5390: Studies in Composition D. One of the following 3 ENGL 5388: History and Practice of Rhetoric ENGL 5379: History of the English Language ENGL 5380: Advanced Grammar and Linguistics E. ENGL 5370: Studies in World Literature 3 F. American Literature 6 G. English literature (at least six hours, in addition to ENGL 6 5305) H. Three additional courses, two of which may be in related 9 disciplines

Total

\*Should be taken as soon as possible upon entering program.

#### Graduation Requirements

- A. A cumulative grade point average of 3.0 in all graduate work attempted
- Successful completion of a written comprehensive examination
- C. Four semesters, or demonstrated reading knowledge, of a foreign language

#### Other Course Offerings

Although UT Tyler does not offer graduate degrees in Philosophy or Spanish, courses in these areas are offered as electives within the Department of Literature and Languages for students seeking graduate degrees in other disciplines. Both Spanish and Philosophy are available as a second or third field in the Master of Arts and Master of Science degree programs in interdisciplinary studies.

# **Department of Mathematics**

# Dr. Sheldon Davis, Chair

# Master of Science in Mathematics

The Master of Science in mathematics program is designed to provide a graduate level education for students who intend to teach at various levels, students who will continue or seek employment within the industrial sector, and students who intend to continue their education beyond the master's level at other institutions.

# Master of Science in Mathematics--Total Semester Hours=36

# Admission Requirements

In addition to the general requirements for admission to graduate study, the requirements for admission to the mathematics programs are as follows:

- A. A satisfactory score on the General Test of the Graduate Record Examination (GRE)
- B. A satisfactory grade point average on all prior advanced level (junior, senior, and graduate) work taken
- C. A proficiency in the use of the English language If a student's verbal score on the General Test of the GRE is below an acceptable minimum, the student must pass an English proficiency test.
- D. The equivalent of an undergraduate degree in mathematics at this institution

Must meet deficiencies before final admission is granted.

- E. Students who do not have satisfactory scores on the Graduate Record Examination may be admitted under the condition that they obtain a grade of "B" or higher in a prescribed set of graduate courses that are approved by the department.
- F. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# Degree Requirements

Each candidate for the degree must complete:

- A. A minimum of 36 semester hours of graduate credit which may include a research project or thesis
- B. A core curriculum of MATH 5331, MATH 5341, MATH 5351, and MATH 5381
- C. At least two of the following: MATH 5333, MATH 5343, MATH 5352, MATH 5383.

# Graduation Requirements

Candidates for the master's degree in mathematics must also meet the following requirements:

- A. A cumulative 3.0 grade point average on all course work Only grades of "B" or better can be applied towards the degree.
- B. Satisfactory performance on a final comprehensive examination covering those core courses and either the thesis, project or an additional area within the students program selected by the student in conjunction with the graduate advisor.

# Department of Political Science

# Dr. Marcus Stadelmann, Chair

# Master of Arts in Political Science

The Master of Arts in Political Science focuses instruction on four areas: American politics, political theory, comparative politics, and international relations. This course of study is designed to 1) prepare students for matriculation to doctoral programs in political science, 2) train degree recipients for teaching responsibilities at the junior college level, and/or 3) provide professional competencies for private and public sector employment.

# Master of Arts in Political Science--Total Semester Hours=36

# Admissions Requirements

In addition to the general requirements for admission to graduate study, the requirements for admission to the political science program are as follows:

- A. A baccalaureate degree from an accredited college or university
- B. A satisfactory score on the General Test (verbal, quantitative, and analytical) of the Graduate Record Examination (GRE). The GRE should be completed prior to the conclusion of the first long semester of enrollment. Courses taken after the first long semester of enrollment will not apply toward the degree unless the student has successfully completed the GRE. Students who do not have satisfactory scores on the Graduate Record Examination may be admitted under the condition that they obtain a grade of B or higher on a prescribed set of graduate courses that are approved by the department.
- C. A satisfactory grade-point average on all prior advanced-level (junior, senior, and graduate) work (Minimum GPA 3.0)
- D. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# Degree Requirements

Two degree options exist. Option A is intended for students seeking broad knowledge of the field of political science, and who may wish to complement that knowledge with additional course work, and intensive reading within the discipline. Option B is designed especially, but not exclusively, for students contemplating doctoral study, and those desiring advanced competence in research skills. Students choosing either option must complete either a graduate level research methods course or show competency in a foreign language by passing the appropriate examination; those choosing Option B, will with rare exception, be expected to complete such a course before beginning thesis research.

# Option A: Master of Arts in Political Science (Non-Thesis)

A. five core seminars	15
POLS 5300, 5311, 5321, 5331, 5341 B. approved electives <b>Total</b>	21 <b>36</b>
Option B: Master of Arts in Political Science (Thesis)	
A. five core seminars	15
POLS 5300, 5311, 5321, 5331, 5341	
B. approved electives	15
C. thesis (POLS 5395, 5396)	6
Total	36

The thesis will be in an area of faculty expertise. A three-person committee, which shall include at least two political science faculty (one of whom shall chair the committee) shall direct the thesis.

# Graduation Requirements

All candidates for the Master of Arts degree in political science must also meet the following requirements:

- A. A cumulative grade-point average of 3.0 in all course work applied towards the degree
- B. Demonstrated competence in a methodological skill, normally including a) reading ability in a foreign language, or b) advanced research and analytical techniques (Such competencies shall be determined by the Department of Political Science.)
- C. Satisfactory performance on a final comprehensive written and/or oral examination.

# Department of Social Sciences

# Dr. Kenneth Wink, Chair

The Department of Social Sciences offers the Master of Public Administration degree, the Master of Science in Criminal Justice and the Master of Science in Sociology. The department also participates in the Master of Arts and Master of Science degree programs in interdisciplinary studies and offers elective courses for students seeking other graduate degrees. The Interdisciplinary Studies degree program is in the graduate section of this catalog.

# Master of Public Administration

The Master of Public Administration degree is a professional course of study for persons in, or preparing for, mid-level or upper-level management positions in public and nonprofit organizations. The program emphasizes the theoretical, practical, and analytical abilities required of persons holding responsible public positions. Centered in the Department of Social Sciences, it also permits the incorporation of specialized fields of interest such as general administration, criminal justice, urban and regional planning, research and evaluation, and health care administration.

# Master of Public Administration-Total Semester Hours=36

# Admission Requirements

- A. A baccalaureate degree from an accredited college or university.
- B. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Examination (GRE). Students who satisfy all requirements except the acceptable GRE score may be admitted under the condition that they obtain a grade of "B" or higher on a prescribed set of graduate courses that are approved by the degree.
- C. A minimum grade point average of 3.0 on a 4 point scale on the last 60 hours of upper division coursework leading to the baccalaureate degree.
- D. A minimum grade point average of 3.0 on at least 15 hours of undergraduate and/or graduate coursework in the social sciences.
- E. A minimum grade of "C" in an upper division social science research methods course.
- F. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# Degree Requirements

Each candidate for the degree must satisfactorily complete 36 hours of course work as indicated:

- A. Core Curriculum (21 hours required):
- PADM 5330: Survey of Public Administration
- PADM 5331: Information Systems in Public Administration
- PADM 5332: Public Budgeting and Finance
- PADM 5336: Administrative Ethics
- PADM 5337: Administrative Law

PADM 5350: Seminar in Human Resources Management PADM 5396: Research Methods

#### B. Area of Concentration (9 hours)

The MPA program offers 5 areas of concentration: general administration, criminal justice, urban and regional planning, research and evaluation, and health care administration.

- 1. General Administration (9 hrs.):
  - 3 hours selected from the following courses:
  - PADM 5335: Topics in Policy Analysis
  - PADM 5338: Program Evaluation
  - PADM 5397: Advanced Social Science Methods

6 additional hours in appropriate graduate courses in public administration, economics, geography, political science, and sociology. To be decided with the consent of the MPA coordinator.

- Criminal Justice (9 hrs.): CRIJ 5303: Contemporary Criminological Theory 6 additional graduate hours in criminal justice
- Urban and Regional Planning (9 hrs.): GEOG 4330/5330: Geographic information Systems PADM 5339: Urban and Regional Planning SOCI 5307: Seminar in Metropolitan Problems SOCI 5385: Studies in Demography
- Research and Evaluation (9 hrs): PADM 5335: Topics in Policy Analysis PADM 5338: Program Evaluation PADM 5397: Advanced Social Science Analysis
- Health Care Administration (9 hrs.): PADM 5344: Health Care Policy and Administration
   hours to be selected from the following courses: ALHS 5350: Public Health Administration and Practice
   ECON 5340: Economics of Public Policy (has economics prerequisites)
   MANA 5320: Management and Organizational Behavior
   PADM 5338: Program Evaluation
   Either HECC 5370: Ethics in Health Professions
   or NURS 5308: Contemporary Nursing Ethics

C. **Electives** (6 hours) are to be chosen with the consent of MPA Coordinator to strengthen students' programs and might emphasize either substantive content or skill development. Students without previous agency experience may elect to take an additional 6 hours of internship. Internship credit must be in addition to the 36 hour degree requirement.

# Graduation Requirements

All candidates for the master of public administration degree must also meet the following requirements:

- A. A cumulative grade point average of 3.0 (4.0 basis) on all work taken for graduate credit. No course with a grade below "C" may be applied toward this degree.
- B. Satisfactory performance on a comprehensive written or oral examination, to be taken during the student's last semester of enrollment, over the work covered in his degree program. Any student who fails the comprehensive examination may, upon recommendation of the Graduate Coordinator, be granted permission to take a second examination. Upon failing the second examination, the student will be dropped from the program.

# Master of Science in Criminal Justice

The purpose of this degree is to provide students with an opportunity for graduate-level education and a specialized degree in criminal justice. This degree will meet the educational needs of several types of students: (1) existing and prospective criminal justice agency personnel wishing to advance their knowledge and credentials in criminal justice, (2) students wishing to prepare for doctoral level work, (3) students wishing to prepare for community college teaching, and (4) students seeking more knowledge of crime and criminal justice.

# Master of Science in Criminal Justice--Total Semester Hours=36

# Admission Requirements

- A. A baccalaureate degree from an accredited college or university.
- B. A satisfactory score on the General Test (verbal, quantitative, and analytical) of the Graduate Record Examination (GRE). Students who satisfy all requirements except the acceptable GRE score may petition the Program Coordinator for admittance to the program. (Guidance available regarding petition format).
- C. A minimum grade point average of 3.00 on a 4 point scale on the last 60 hours of upper division coursework leading to the baccalaureate degree.
- D. A minimum grade point average of 3.00 on at least 15 hours of undergraduate and/or graduate coursework in the social sciences.
- E. A minimum grade of "C" in an upper-division social science research methods course.
- F. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# Degree Requirements

The Master of Science in Criminal Justice is a 36-hour degree. Students may choose the thesis or non-thesis option. The thesis option is recommended for those students who seek research experience or wish to pursue a doctorate.

- A. Leveling Requirement (hours do not apply to degree requirements) CRIJ 5300: Survey of Criminal Justice (required for those students lacking a criminal justice background)
- B. Required courses—24 hours

Ethics: CRIJ 5336: Administrative Ethics Administration: CRIJ 5309: Seminar in Criminal Justice Administration, Corrections: CRIJ 5313: Contemporary Issues in Corrections Criminological Theory: CRIJ 5303-Contemporary Criminological Theory Law Adjudication: CRIJ 5302-Judicial Policy and Social Process Law Enforcement: CRIJ 5332: Law Enforcement, Environment and Practice. Research and Analysis: CRIJ 5396-Research Methods and CRIJ 5397-Advanced Analysis

C. Thesis Option: six semester hours from: CRIJ 5394 and CRIJ 5395

D. Electives: six hours with thesis option or twelve hours with non-thesis option.

CRIJ 5310: Topics in Criminal Justice may be repeated for a maximum of six credit hours with different topic titles.

CRIJ 53XX: Other Electives

CRIJ 5199-5699: Independent Study (may be taken for one to six credit hours with permission of advisor and department chair

Other electives may be selected from Public Administration, Economics, Psychology, or Sociology

Optional: Graduate level internships (CRIJ 5370/5371) are available but may not be counted toward the 36-hour degree requirement.

# Graduation Requirements

- A. All students must achieve a cumulative 3.0 GPA on all work applied to the degree.
- B. Thesis students must submit a standard master's quality thesis acceptable to a committee comprised of three UT Tyler faculty members, two of whom (including the thesis chair) must be criminal justice faculty. Thesis students will also give an oral defense of their thesis to faculty and students.
- C. Non-thesis students must pass a final written comprehensive examination covering all course work applied to the degree.

# Master of Science in Sociology

The Master of Science in sociology is designed to help students adapt to the "post-industrial" economy, prepare for doctoral programs, and acquire skills for teaching in junior colleges. The program provides theories and skills for understanding and solving institutional, regional, national, and international problems. Through a variety of experiences in sociology and related disciplines this degree develops professional competence in using sociology to affect positive change among individuals, families, organizations, business enterprises, communities, and societies.

# Master of Science in Sociology--Total Semester Hours=36

# Admission Requirements

- A. A baccalaureate degree from an accredited school.
- B. A satisfactory score on the General Test (verbal, quantitative, and analytical) of the Graduate Record Examination (GRE).
- C. A minimum grade point average of 3.0 on a 4 point scale on the last 60 hours of upper division coursework.
- D. A minimum grade point average of 2.5 on at least 15 hours of undergraduate courses in sociology. Six hours in anthropology, economics, or geography may count toward this requirement.
- E. A minimum GPA of 2.0 in a statistics course.
- F. Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# **Degree Requirements**

The Master of Science in Sociology is a 36-hour degree. Students may choose the thesis option or the non-thesis option. The thesis option is oriented to those students who wish to pursue a doctorate and who will need to present a thesis as part of the admission criteria for their doctoral program. Students pursuing a terminal master's may be better served by the non-thesis option.

Core courses: 9 hours

SOCI 5380: Sociological Theory SOCI 5396: Seminar in Social Science Research SOCI 5397: Studies in Applied Sociology

Prescribed electives: 15 hours from the list below: SOCI 5302: Seminar in Deviance SOCI 5307: Seminar in Metropolitan Problems SOCI 5310: Internet Communities SOCI 5321: Intercultural Studies SOCI 5325: Topics in Social Problems

- SOCI 5341: Seminar in Marriage and the Family
- SOCI 5385: Studies in Demography

Free electives: 6 hours from the following: CRIJ 5303: Contemporary Criminological Theory ECON 5340: Economics of Public Policy ECON 5660: Fundamentals of Free Enterprise System POLS 5331: Seminar in Comparative Politics POLS 5341: Seminar in International Relations

Thesis/applied paper: 6 hours (see below) Thesis Option; SOCI 5394 and 5395 Non-Thesis Option: SOCI 5388 and 5389

# Thesis Option

Six hours of thesis SOCI 5394 and SOCI 5395 are required. SOCI 5395 may be repeated with the permission of the major professor. Students must be registered in that course during the semester in which they plan to graduate. The thesis will be under the tutelage of the major professor who will serve as the thesis committee chair. The committee chair, two additional committee members, discipline coordinator, and the department chair must approve the thesis proposal. To fulfill the graduation

requirements, the student is expected to defend the thesis in an oral examination.

# Non-Thesis Option

Six hours of applied research SOCI 5388 and SOCI 5389 are required. Registration into these courses will follow the current procedures for independent study as required of all students in the department of social sciences. To register for one of these courses, the student must file the independent study application form. To be accepted, the application must be approved by the committee chair, discipline coordinator, and the department chair. To fulfill the graduation requirements, the student is expected to produce a professional paper of publishable quality as judged by the student's degree committee.

# Graduation Requirements

- A. A grade of "B" or better in each core course.
- B. A cumulative grade point average of 3.0 on all work applied to the degree.
- C. All students must pass a final comprehensive written examination
- D. Thesis students must submit a standard master's quality thesis and satisfactorily defend the thesis.
- E. Non-Thesis students must satisfactorily present and defend their research paper.

# School of Performing Arts

# Dr. Michael Thrasher, Director

The School of Performing Arts offers Master of Arts in Interdisciplinary Studies with Music as first field. The Interdisciplinary Studies degree program is described in the Graduate Policies section of this catalog.

# Department of Music

Students seeking a Master's degree in interdisciplinary studies with music as a first field should have a minimum of 12 hours upper-division or graduate courses in music. For full admission to the program, all students must meet all requirements for admission to graduate study, perform an entrance audition on their principal performing medium before a faculty committee or submit a portfolio of compositions, and demonstrate proficiency through departmental entrance/advisory exams.

# ARTS AND SCIENCES GRADUATE COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

# Anthropology (ANTH)

# ANTH 5199-5699: Independent Study

Intensive directed readings course on an agreed upon topic. Term paper is the major requirement. A maximum of six credit hours for independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair and program advisor required.

# Art (ART)

# ART 5310: Graduate Studio Problems in Drawing and Painting

The study of the technical, formal and conceptual aspects of drawing and painting. May be repeated for credit when content varies subject to advisor's approval.

# ART 5311: Graduate Studio Problems in Ceramics

A study of a variety of pottery and sculptural techniques, and the development of individual expression through the use of volume, form, space and mass. May be repeated for credit when content varies subject to advisor's approval.

# ART 5312: Graduate Studio Problems in Printmaking

The study of studio printing techniques in intaglio, lithography, relief, monoprints, collograph, and multiple plate printing. May be repeated once for credit as content varies and with advisor's approval. Laboratory fee \$30.

# ART 5314: Graduate Studio Problems in Sculpture

A study of a variety of sculptural techniques, including casting, fabrication, multi-media. Development of individual expression. May be repeated once for credit when content varies and with advisor's approval.

# ART 5315: Graduate Studio Problems in Small Metals

A study of a variety of small metal techniques, including casting, fabrication. Development of individual expression. May be repeated for credit when content varies and with advisor's approval.

# ART 5316: Graduate Studio Problems in Intermedia

Study of mixed media and non-traditional combinations of materials in the production of art. Students are encouraged to expand the definition of materials that may be used in the art process. May be repeated for credit when content varies and with advisor's approval.

# ART 5317: Graduate Studio Problems in Collage

Study in collage theory and practice through the use of mixed media. An investigation of various supports, adhesives, and presentations methods used in collage. Discovery through created, found, an simulated materials.

# ART 5320: Graduate Figure Drawing & Modeling

This course is designed to promote individual development in the use of the human figure in forming compositions. Sketching from the model and forming clay from the model are employed to emphasize functional and aesthetic requirement of form and detail. May be repeated for credit up to 9 semester hours.

# ART 5326: Arts Management and Marketing

This course is designed to cover practical issues related to the promotion and development, financing, marketing, and management of individual artists, private collections and museums.

# ART 5330: Advanced Studies in Art History and Criticism

Analysis of selected areas of art history and criticism from established periods and styles of art. May be repeated for credit when content varies subject to advisor's approval.

# ART 5336: Aesthetics and Criticism

This course is designed to cover the reading and discussing of a list of books, both classic and current, on aesthetics, creativity, philosophy, and the psychology of art. May be repeated for credit up to 9 semester hours.

# ART 5337: Theory and Research Methods in Art History

A inquiry into the theory and practice of art history. Methodological issues and recent theoretical approaches to the discipline of art will be discussed.

# ART 5340: Art in Childhood Education

Study of materials and approaches in creative art for teachers to aid them in developing character and personality of children through artistic activity.

# ART 5342: Medieval Art

An advanced study of architecture, sculpture, and painting in Europe from the reign of Charlemagne to the Romanesque and Gothic periods.

# ART 5343: Graduate Studies in Greek and Roman Art

An advanced study of architecture, sculpture, and painting from Aegean art to the fall of the Roman Empire.

# ART 5344: Graduate Studies in Medieval Art

Advanced study of architecture, sculpture, and painting in Europe from the reign of Charlemagne to the Romanesque and Gothic periods.

# ART 5345: Graduate Studies in Renaissance Art History

Advanced study of the art of Renaissance Europe, including architecture, sculpture, and painting produced in Northern and Southern Europe from 1300 to 1600.

# ART 5346: Graduate Studies in Baroque and Rococo Art

Advanced study of painting, sculpture and architecture in Europe from 1600 to 1790. Special attention will be given to the effects on art of the Counter-Reformation, the rise of divine right, and the circumstances leading to the French Revolution.

# ART 5347: Graduate Studies in Nineteenth Century Art

Advanced study of painting, sculpture, and architecture in Europe from 1790 to 1890. This course will offer an in-depth examination of movements in the visual arts from Neoclassicism to Post-impressionism.

# ART 5348: Graduate Studies in Art in America

Advanced study of American art, including architecture, sculpture, painting, and material culture from colonial times to 1945.

# ART 5349: Graduate Studies in Twentieth-Century Art

Advanced study of painting, sculpture, and architecture in the twentieth century. Avant-garde movements, including Cubism, Dadaism, Surealism, Abstract Expressionism, Pop art, and Op art, will be examined in depth.

# ART 5387-5687: Field Experience in Art

On-site examination of monuments of art and architecture, field investigation, archival research or studio practice involving travel away from campus. Classroom lectures, seminars, or faculty supervision will complement the travel

and field experiences. No more than six hours of travel study courses may be applied to the M.A. or M.F.A.

# ART 5370: Graduate Studio Practice

Studio practice of technical, formal and conceptual aspects of making art. Approval of Graduate Advisor or department chair required. May be repeated for credit.

# ART 5390: Selected Topics in Art

Graduate studies in studio art or art history to include areas such as photography, papermaking, installation, and seminar based topics. May be repeated once when content varies, and with advisor's approval.

# ART 5394: Contemporary Issues

This course is a seminar covering contemporary ideas, trends, theories and processes in the visual arts. Group discussions will compliment readings and written assignments. May be repeated for credit up to 6 semester hours.

# ART 5395: Thesis

Completion and approval of suite of art works accompanied by progress report. **Prerequisites:** Consent of advisor. May be repeated for credit up to 6 semester hours.

# ART 5396: Thesis

Completion and approval of suite of art works accompanied by progress report. **Prerequisites**: ART 5395 or consent of advisor. May be repeated for credit up to 6 semester hours.

# ART 5397: Graduate Exhibition

Completion of studio work with culminating solo exhibition, under faculty supervision and oral defense at the exhibition.

# ART 5199-5699: Independent Study

Independent study in specific areas of art not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Biology (BIOL)

# BIOL 5101: Univariate Statistical Methods in Biology

A critical evaluation of statistical analysis as applied in the biological sciences. Approaches to experimental design will be discussed, and univariate statistical methods will be reviewed with an emphasis on current applications in ecology and systematics.

# BIOL 5102: Multivariate Statistical Methods in Biology

A continuation of BIOL 5101. A critical evaluation of multivariate statistical analyses as applied in the biological sciences. Basic properties of multivariate normal distributions and analyses will be reviewed with an emphasis on current applications in ecology and systematics.

# BIOL 5302: Cell and Molecular Biology

Regulatory processes of cellular activities. Emphasis on genetic regulation; membranes and transport, replication and cell cycle, and cell signaling. **Corequisite:** BIOL 5103; **Prerequisites:** BIOL 3332/3133; BIOL 3334/3134; CHEM 4334/4135 or equivalent.

# BIOL 5103: Cell and Molecular Biology Lab

Advanced techniques for the study of the cellular and molecular basis of biology. Emphasis on genomic and proteomic analysis of cells. **Co-requisite:** BIOL 5302; **Prerequisites:** BIOL 3332/3133; BIOL 3334/3134; CHEM 4334/4135 or equivalent.

# BIOL 5304: Biogeography

Study of flora and fauna of the world and factors affecting their distribution.

# BIOL 5305: Aquatic Biology

Ecology and general biology of freshwater ecosystems. Emphasis on the interrelationships of biological, chemical, and physical factors.

# BIOL 5105: Aquatic Biology Lab

Diversity, ecology, and management of the major groups of freshwater organisms, with an emphasis on North American flora and fauna. Major focus on basic field techniques, experimental design, and identification of field-captured organisms.

# BIOL 5330: Herpetology

The study of the diversity of amphibians and ecology and conservation. Field trips will be required .

# BIOL 5131: Herpetology Laboratory

Laboratory examination of the diversity of amphibians and reptiles. Study of the anatomy and physiology of amphibians and reptiles and ecological and behavioral experiments.

# BIOL 5331: Entomology

Physiology, morphology, life history, and control of insects. .

# BIOL 5132: Entomology Laboratory

Systematics and taxonomy of insects and related forms with emphasis on collection and identification.

# BIOL 5333: Landscape Ecology

An introduction to the study of large-scale ecological patterns and processes. Course will emphasize how spatial complexity emerges and is maintained in ecological systems, the analysis of spatial pattern, scaling issues, the ecological consequences of spatial pattern and applications for conservation and ecosystem management.

# BIOL 5133: Landscape Ecology Laboratory

An introduction to the analysis of landscape structure. Computer modeling will be used to examine spatial pattern including defining elements of pattern, connectedness, fractal geometry, and percolating networks.

# BIOL 5340: Ornithology

The origin, taxonomy, distribution and a natural history of birds. **Prerequisite:** BIOL 4335-4136 or consent of instructor.

# BIOL 5141: Ornithology Laboratory

Anatomy, field identification, and methods of study of birds. **Prerequisite:** BIOL 4335-4136 or consent of instructor.

# BIOL 5661: Field Biology

A field course emphasizing the identification, ecology, life histories, and behavior of organisms under natural conditions (summers only).

# BIOL 5350: Ecotoxicology

Examination of contaminants in ecosystems and their effects on constituents of the ecosystems. Topics will focus on fundamental themes of ecotoxicology, building progressively from the biomolecular level toward a review of ecotoxicological effects to population, community, and ecosystem integrity.

# **BIOL 5366: Phylogenetic Systematics**

An introduction to the methods and underlying theory of phylogenetic analysis. Course will review the historical development of phylogenetic systematics and then focus on use of maximum parsimony and maximum likelihood methods in determining evolutionary relationships. Applications of phylogenetic information will be discussed.

# BIOL 5380: Topics in Advanced Biology

Topics to be selected include microbial physiology, microbial anatomy, general virology, terrestrial ecology, evolution, invertebrate zoology, vertebrate zoology, botany, and immunology. Topics differ according to interest and needs of the student. May be repeated once for credit when content changes.

# BIOL 5181: Topics in Advanced Biology Laboratory

Laboratory work selected to correlate with the subjects covered in BIOL 5380. May be repeated once for credit when content changes. Laboratory fee \$5.

# **BIOL 5384: Evolutionary Genetics**

A synthesis and development of the fundamental concepts related to biochemical and population genetics including such topics as mechanism of gene action, genetic control of cellular activities, gene-enzyme relations, inborn errors in metabolism, genetic equilibrium in populations, mutations, allelic variation, selection, and evolution. **Prerequisite:** One course in genetics.

# **BIOL 5185: Evolutionary Genetics Laboratory**

Classic and fundamental genetic experiments to demonstrate such genetic concepts as inheritance of single recessive traits, phenotypic and genotypic frequencies, spontaneous mutation, selection, recombination, and in-breeding. Laboratory fee \$5.

# BIOL 5390: Ethoecology

The biological basis of animal behavior. Topics to be studied include fixed action patterns, dominance, conflict behavior, and phylogeny and ontogeny of behavior, genetics and ecology of behavior.

### BIOL 5191: Ethoecology Laboratory

Experiments designed to illustrate principles of dominance, territorial defense, and genetic patterns of behavior. Laboratory fee \$5.

#### **BIOL 5192: Experimental Methods in Biology**

Theory and criticism of commonly used research designs in the biochemical sciences, including analysis and interpretation of biological observations. Various strengths and weaknesses of certain experimental designs are examined.

#### BIOL 5193: Graduate Seminar in Biology

Discussion and presentations by faculty and students on various up-to-date topics in biology. May be repeated once for credit.

#### BIOL 5394: Biological Research

Emphasis on proposal writing and research in biology. May be repeated once for credit if topic varies. **Requisite:** approval by chair of thesis committee.

#### BIOL 5395: Thesis

Selection of a research topic and development of a thesis plan.

#### BIOL 5396: Thesis

Completion and approval of thesis. **Prerequisite:** BIOL 5395 or concurrent enrollment.

# BIOL 5199 - 5399: Independent Study

Independent study in specific areas of biology not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Chemistry (CHEM)

#### CHEM 5320: Advanced Biochemistry

Study of the synthesis of intermediary metabolites, the chemistry of enzyme systems, and the metabolic functions of vitamins. **Prerequisite:** One semester of biochemistry.

### CHEM 5121: Advanced Biochemistry Laboratory

Laboratory experiments in enzyme extraction, purification, and characterization. Laboratory fee \$10

# CHEM 5199-5399: Independent Study

Independent study in specific areas of chemistry not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Communication (COMM)

#### COMM 5300: Human Communication Theory

This course examines the major lines of theoretical development in the study of human communication and the diverse and alternative metatheoretical bases for theory construction and critical analysis. Attention is given to questions of causal or practical necessity and to reductionistic or holistic analysis of communication processes and phenomena.

#### COMM 5301: Literature of Journalism

A survey of the literature. Students will read general and specialized literature as a basis for group discussion.

# COMM 5302: Seminar in Rhetorical Criticism

Rhetorical principles, procedures, and methods of systematically analyzing persuasive discourse in various media.

### COMM 5303: Public Opinion and Propaganda

Study of propaganda theory and methods, emphasis on opinion-making processes in governments, political parties, pressure groups, and mass media. Critical examination and synthesis of past and on-going research on propaganda.

#### COMM 5305: Theories of Mass Communication

A study of the theories of mass communication. Emphasis will be placed on understanding the process and effects of mass media.

#### COMM 5307: Quantitative Methods of Investigation

Study of tools, techniques, and designs of research used to investigate the control, content, audience, and effects of communication—including mass media.

# COMM 5315: Mass Media and Popular Culture

An examination of popular culture with emphasis on the role of television, cable, film, magazines, internet, and emerging technologies in transmitting symbols and images.

### COMM 5325: Qualitative Methods of Investigation

Qualitative analysis of the complexities of public communication and the essential nature of human speech and its resources and problems. This course is intended for students who are interested in the rhetorical analysis of public address and persuasion.

### COMM 5328: Leadership and the Group Process

Involves the student in a definition of leadership and its role within the processes of small groups. It is a theoretical study of communication networks, human motivation, conflict reduction, and the introduction of social change.

# COMM 5329: Topics in Communication Theory

An analysis of major communication theories in journalism and speech communication with an emphasis on current ideas and literature. May be repeated once for credit when content changes.

# COMM 5330: Gender and Communication

A study of gendered communication behaviors and their impact on various communication contexts including intimacy, the family, group, and the business world.

#### COMM 5335: Seminar in Organizational Communication

A critical look at the role of communication in formal organizations, both public and private. Emphasis on a review of literature and field research in selected communication problems.

#### COMM 5340: Seminar in Intercultural Communication

Designed to provide the student with the opportunity to acquire theoretical guidelines and experiential applications in the study of human communication across cultures, including intercommunity, international, and global communication.

#### COMM 5345: New Media Theories and Applications

This course involves an exploration of the cognitive, linguistic, and interpretive approaches to the study of new media. Consideration will be given to both the practical and theoretical values of new media.

#### COMM 5350: Nonverbal Communication

A study of the effects of space and territory, physical appearance, bodily movement, touching, the face and eyes, and paralanguage on the total communication process.

#### COMM 5351: Freedom and Responsibility of Communication

An examination of issues and cases in freedom of speech with particular application to ethics in communication. The nature and function of public communication, the challenges to freedom of speech, and the ethics of communication are explored.

# COMM 5399: Independent Study

Independent study in specific areas of journalism or speech communication not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** consent of advisor or department chair.

# COMM 5395: Thesis

Selection of research topic and development of thesis plan.

# COMM 5396: Thesis

Completion and defense of thesis. **Prerequisites:** COMM 5395 or concurrent enrollment and consent of advisor.

# Criminal Justice (CRIJ)

# CRIJ 5301: Concepts of Law and Justice

A critical analysis of the concepts of law and justice in democratic societies and their implications for policy formulation and system evaluations. Some comparative analysis of systems foreign to the United States.

# CRIJ 5300: Survey of Criminal Justice

This course provides an introduction to components of the criminal justice system and the critical issues facing each. CRIJ 5300 is a leveling course and does not apply to the 36-hour degree program.

# CRIJ 5302: Judicial Policy and Social Process

Explores the important role of the judiciary in making public policy and resolving competing societal and individual concerns. Examines the manner in which courts have adjudicated some of today's most controversial issues, including capital punishment, abortion, and pornography. Demonstrates how criminal law affects the rights and aspirations of minorities, the poor, and juveniles.

# CRIJ 5303: Contemporary Criminological Theory

Examines the role of theory in criminology and reviews major theories of crime causation. Emphasis will be on applying these theories to contemporary criminal justice practices.

# CRIJ 5304: Evidence/Mock Trial

The primary goal of this course is to familiarize students with the primary substantive and procedural rules of evidence in the American Criminal Justice System. Students will learn the fundamentals of the criminal trial process and the responsibilities of all key participants.

# CRIJ 5307: Criminal Justice Policy

Examines policy within the criminal justice system from the standpoint of process, decision-making, and goal-setting. Emphasis is on policy origin issues concerning rationalism, incrementalism, elitism, game theory, and power group competitions.

# CRIJ 5309: Seminar in Criminal Justice Administration

Using case study as its principal methodology and moving from theoretical propositions to practical considerations, this course examines a range of concepts developed in the managements and organization literature as applied in the administration of criminal justice agencies. A criminal justice system perspective is achieved by examining selected issues involving the administration of police departments, prosecutors' and public defenders' offices, jails and prisons, and probation and parole offices. Particular emphasis will be placed on leadership and workplace issues.

# CRIJ 5310: Topics in Criminal Justice

Study of current significant and controversial issues which affect the criminal justice system.

# CRIJ 5313: Contemporary Issues in Corrections

An analytical examination of current issues in corrections, including those applicable to American jails and prisons, probation, parole, and correctional programs both within correctional institutions and in the community.

# CRIJ 5332: Law Enforcement: Environment and Practice

An advanced examination of policing strategies and programs and their related applications in the larger criminal justice system. Emphasis will be placed on

using empirical methods to examine the effectiveness of contemporary policing practices from a variety of theoretical perspectives.

### CRIJ 5336: Administrative Ethics

A study of ethical issues facing public and criminal justice administrators. Issues include the development of value systems, the nature of public duty, the formulation of value-based decision making strategies, the importance of professional ethical standards, and the dangers of public corruption.

# CRIJ 5340: Violence and Society

A review of the causes, treatment and impact of violent behavior, particularly serial/chronic violence in American society. Domestic violence is included in the review. Biological, psychological and sociological causes will be analyzed and compared. Responses by the Criminal Justice System, the public, the media, health care system, etc. will be analyzed. Impact on and treatment for victims, both adults and children, will be included.

# CRIJ 5370/5371: Internship

Supervised work experience with a criminal justice agency in which the student spends a minimum of 150 hours during the semester under joint supervision of the agency and the University. **Prerequisites:** graduate standing in criminal justice and approval of the department chair

# CRIJ 5396: Research Methods

This course focuses on research design and methodology as they are commonly implemented in administrative or agency settings. Included among the topic areas are experimental design, sampling, hypothesis testing, quantitative data analysis, introduction to statistics and computerized analysis.

# CRIJ 5397: Advanced Social Science Analysis

Examines common methods of data analysis and presentation with attention to computerized applications. Emphasis on the application of statistics in social science research. **Prerequisite:** CRIJ 5396.

# CRIJ 5199 - 5699: Independent Study

Independent study in specific areas of criminal justice not covered by organized graduate courses. **Prerequisite:** Consent of department chair.

# CRIJ 5394: Thesis

Selection of a research topic and development of a thesis proposal. **Prerequisite:** consent of advisor

# CRIJ 5395: Thesis

Completion and approval of thesis. **Prerequisite:** CRIJ 5394, or concurrent enrollment, and consent of advisor.

# Economics (ECON)

# ECON 5300: Economic Concepts and Processes

Elements of production costs, demand and market structures as well as income determination and monetary and fiscal policy. Will satisfy prerequisites calling for six hours of Principles of Economics. An introduction to economics for those without credit for Principles of Economics or who need a stronger background in Principles.

# ECON 5310: International Economics

Review of trade statements, systems for regulating balance of payments and currency exchange rate mechanisms. The nature and implication of foreign investment, trade barriers, and productivity are also considered. **Prerequisite:** Six hours of principles of economics.

# ECON 5320: Advanced Economic Analysis

Application of economic decision models to problems encountered by business firms. **Prerequisite:** Six hours of principles of economics.

# ECON 5330: Central Banking and Monetary Policy

Considers the nature of and the role played by central banks around the world. History and development of the Federal Reserve and its effectiveness are reviewed. Case studies in crisis management by central banks are examined. **Prerequisite:** Six hours of principles of economics.

# ECON 5340: Economics of Public Policy

An analysis of current economic policy and its influence on output, employment, prices, and economic growth. **Prerequisite:** Six hours of principles of economics.

# ECON 5660: Fundamentals of the Free Enterprise System

A study of the American free enterprise system. Includes an analysis of the role of free markets in the determination of prices and the allocation of resources, the profit motive, competition, and the interdependence of business, labor and government in the American economy. May not be taken for credit by candidates for the MBA degree or the master's degree in interdisciplinary studies. (Summer only)

# ECON 5199 -5699: Independent Study

Independent study in specific areas of economics not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied to a graduate degree. **Prerequisite:** Consent of the economics advisor.

# English (ENGL)

#### ENGL 5300: Bibliography and Methods of Research

Study of bibliographical sources and techniques of literary scholarship.

### ENGL 5305: Chaucer and Middle English Literature

A linguistic and literary study of Chaucer's major works and the works of his principal contemporaries.

### ENGL 5310: Masters of English Literature

Intensive study of one or more major English writers from Chaucer to the present. May be repeated once for credit when content changes.

# ENGL 5315: Studies in the English Renaissance

Selected writers from Chaucer to Milton.

#### ENGL 5320: Shakespeare

An advanced study of Shakespeare's poems and plays.

#### ENGL 5321: Studies in English Neoclassical Literature

Selected writers from 1660 to 1800. Figures to be studied may include Dryden, Pope, Johnson, Swift, Goldsmith, and Fielding.

# ENGL 5323: Studies in Romanticism

Selected writers from 1750 to 1850. Primary attention given to the works of the English romantics, but related works in continental and American romanticism will also be considered. May be repeated once for credit when content changes.

#### ENGL 5325: Studies in Victorian Literature

Selected writers from 1832 to 1900. Figures to be studied may include Dickens, Tennyson, Carlyle, Browning, Arnold, Hardy, and Yeats.

#### ENGL 5330: English Literature: Twentieth Century

Important works and writers of poetry, drama and prose of this period: Yeats, Eliot, Shaw, Stoppard, Pinter, Conrad, Joyce, Beckett, and Greene.

#### ENGL 5340: Masters of American Literature

Intensive study of one or more major American writers from the Puritans to the present. May be repeated once for credit when content changes.

#### ENGL 5346: American Literature through the Romantic Period

Detailed study of selected writers and literary movements from 1607 to 1835. Figures to be studied may include Bradstreet, Taylor, Franklin, Edwards, Child, Sedgwick, Murray, Cooper, and Irving.

#### ENGL 5348: American Renaissance

Detailed study of American authors from 1835-1865. The course may include works by the following authors: Emerson, Thoreau, Hawthorne, Poe, Whitman, Dickinson, Douglass, Jacobs and the sentimental novelists.

# ENGL 5350: Studies in American Literary Realism

Development of the realistic tradition in nineteenth-century American literature. Chief figures to be studied may include Twain, Howells and James.

### ENGL 5355: Studies in Twentieth-Century American Literature

The development of American literature from 1900 to the present: Dreiser, Hemingway, Fitzgerald, Wolfe, Eliot, O'Neill, and others. May be repeated once for credit when content changes.

### ENGL 5368, 5668: Literary Settings and Influences

Studies particular sites associated with works of literature, regions that influenced an author's literary development, and collections of manuscripts and other relevant artifacts. The course combines classroom experience with travel.

### ENGL 5370: Studies in World Literature

Selected writers from Homer to the present, with special attention to classical and continental literature. May be repeated for credit when content changes.

#### ENGL 5379: History of the English Language

A study of the growth and development of English from its earliest period to the present, with emphasis on the changes in sounds, forms, sentence structure and vocabulary.

# ENGL 5380: Advanced Grammar and Linguistics

English sounds and syntax in their historical setting, with special attention to modern American dialectology, and to the development of linguistic skills.

### ENGL 5381: Children's Literature

Advanced study in the history and analysis of children's literature. Designed primarily for precollege, elementary and secondary teachers.

# ENGL 5382: Contrastive Linguistics

Advanced comparative study of phonemic, morphological and syntactical differences between English and a sampling of other languages represented in public schools. It seeks to provide the prospective teacher with the opportunity to identify sources of difficulty experienced by students for whom English is a second language. Students will also study works by international writers. Students will tutor a limited English-proficient student for a minimum of 15 hours.

# ENGL 5383: Acquisition and Development of English as a Second Language

Advanced study of theories of language acquisition and the resulting effects on the teaching process. First and second language developmental sequences and the growing body of literature in the field will be stressed. Students are to tutor a limited English-proficient student for a minimum of 15 hours.

# ENGL 5384: Methodology of Teaching English as a Second Language

Advanced study of the theoretical foundations of second-language instruction. Techniques for possible approaches to teaching pronunciation, grammar, reading, and writing to TESL students also will be studied. Construction and use of appropriate tests for TESL situations will be emphasized. Students are to tutor a limited English-proficient student for a minimum of 15 hours.

# ENGL 5385: Literary Theory and Criticism

Study of methods of literary analysis and of standards of literary appreciation.+

# ENGL 5386: The Modern Novel

Study of parallels in themes and techniques among modern novelists. Figures to be studied may include Proust, James, Gide, Faulkner, Conrad and Joyce.

#### ENGL 5387: Practicum in Teaching English as a Second Language

Experience for prospective teachers to demonstrate identified competencies in the classroom. **Prerequisite:** Nine semester hours of TESL course work or consent of instructor.

# ENGL 5388: History and Practice of Rhetoric

A study of selected primary texts by rhetoricians from the classical ages to the present and of recent scholarly theories and commentaries. Topics might include changing definitions and constructions of rhetoric, the Sophists, the relation between rhetoric and epistemology, and the role of rhetoric in the history and development of liberal education.

#### ENGL 5390: Studies in Composition

A study of forms of expository prose, with particular emphasis on style and organization. Regular writing assignments.

# ENGL 5392: History, Theory and Practice of Writing Centers

This course will survey the history, theory and practice of writing centers as they have developed in American universities since 1970. Students will complete extensive reading lists, give regular presentations, and complete a major research assignment. Students will also have the opportunity to observe and conduct supervised writing consultations in the UTT writing center.

# ENGL 5395: Thesis

Selection of a research topic, development of a thesis plan, and initiation of directed research. **Prerequisite:** Consent of advisor.

# ENGL 5396: Thesis

Completion and approval of thesis. **Prerequisite:** ENGL 5395 or concurrent enrollment and consent of advisor.

# ENGL 5687: Practicum in English as a Second Language

Experience for prospective teachers to demonstrate identified competencies in the classroom. **Prerequisite:** Nine semester hours of TESL course work or consent of instructor.

# ENGL 5199-5699: Independent Study

Independent study in specific areas of English not covered by organized graduate courses. A maximum of six credit hours for independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Geography (GEOG)

# GEOG 5330: Geographic Information Systems

Advanced principles of geographic information systems, including data capture, storage, processing, and output. Focus will be on applications to various problems in the natural and social sciences, including public administration and planning. **Prerequisite:** CI.

# History (HIST)

# HIST 5310: Seminar in History

Research and writing in selected areas of history. May be repeated for credit when content changes. **Prerequisite:** 6 hours of reading seminars.

# HIST 5320: Seminar in State and Local History

Seeks to build an appreciation for significant state and local history. Emphasis on historiography and use of primary source material. **Prerequisite:** 6 hours of reading seminars.

# HIST 5330: Seminar in European History

Research and writing in selected areas of European history. May be repeated for credit when content changes. **Prerequisite:** 6 hours of reading seminars.

# HIST 5330: Seminar in American History

Research and writing in selected areas of American history. May be repeated for credit when content changes. **Prerequisite:** 6 hours of reading seminars.

# HIST 5352: Renaissance Europe

In-depth study of literature in Renaissance European history.

# HIST 5353: Reformation Europe

In-depth study of literature in Reformation European history.

# HIST 5354 Medieval Europe

In-depth study of the literature of Medieval European history.

# HIST 5356: Seventeenth-Century Europe

In-depth study of historical literature in seventeenth-century Europe to 1715.

# HIST 5357: Eighteenth-Century Europe

In-depth study of historical literature in European history of the eighteenth century, 1715-1815.

# HIST 5358: Nineteenth-Century Europe

In-depth study of historical literature in European history of the nineteenth century, 1815-1914.

### HIST 5359: Twentieth-Century Europe

In-depth study of literature in European history of the twentieth century, 1914present.

# HIST 5668: Field Experience in History

Provides the graduate student with opportunities to study historical sites and museums, use archival records, and conduct field research on a given topic which includes some travel. Classroom experiences employing the lecture and seminar methods complement the field experience. **Prerequisite:** Consent of instructor.

### HIST 5372: Public History Internship

Internship with public and private agencies in the East Texas region. **Prerequisite:** Consent of instructor.

# HIST 5376: Native American History

In-depth study of the literature related to Native American relationships with the United States.

### HIST 5377: American Borderlands

In-depth study of the literature related to the history of American Borderlands.

# HIST 5379: The Age of Jackson

In-depth study of the literature in American history from 1815 to 1848.

### HIST 5384: Colonial America

In-depth study of the literature in American history from 1492 to 1754.

#### HIST 5385: Revolutionary America In-depth study of the literature in American history from 1754 to 1815.

HIST 5386: Civil War and Reconstruction

In-depth study of the literature in American history from 1848 to 1877.

# HIST 5387: Industrial and Progressive America

In-depth study of the literature in American history from 1877 to 1917.

# HIST 5388: America During the World Wars

In-depth study of literature in American history from 1917 to 1945.

# HIST 5389: America Since 1945

In-depth study of literature in American history since 1945.

# HIST 5394: Historiography

Analyzes historical writing and the philosophy of history. Considers the works of important historians and schools of thought since Herodotus. **Prerequisite:** Consent of instructor.

# HIST 5395: Thesis

Selection of a research topic and development of a thesis plan. **Prerequisite:** Consent of thesis director.

# HIST 5396: Thesis

Completion and approval of thesis. **Prerequisite:** HIST 5395 or concurrent enrollment and consent of thesis director.

#### HIST 5397: Topics in History

In-depth study of literature in selected areas of history. May be repeated for credit when content changes.

# HIST 5199 - 5699: Independent Study

Independent study in specific areas of history not covered by organized graduate classes. A maximum of six credit hours may be applied toward a graduate degree. **Prerequisite:** Consent of instructor.

# Mathematics (MATH)

# MATH 5305: Logic and Foundations

Mathematical logic, detailed and rigorous study of set theory, introduction to axiomatic systems, examination of real number systems. **Prerequisite:** Departmental approval.

# MATH 5331: Algebra

Basic structure, substructure, morphisms, and quotient structures in the categories of groups, rings, and modules. **Prerequisite**: MATH 3336 or equivalent.

# MATH 5333: Topics in Algebra

Topics may include group actions, p-groups, Galois theory, polynomial rings, field theory, vector spaces, modules over a PID, algebraic geometry, homological algebra, representation theory. Course may be repeated when content changes. **Prerequisite**: MATH 5331.

# MATH 5341: Real Analysis

Topics include set theory, the real number system, Lebesgue measure, the Lebesgue integral, differentiation and integration, classical Banach spaces. **Prerequisite:** MATH 4341 or equivalent.

# MATH 5343: Topics in Real Analysis

Topics may include general topology, Banach spaces, generalized measure and integration, or related topics. Course may be repeated when content changes. **Prerequisite:** MATH 5341.

# MATH 5351: Mathematical Probability

Axiomatic development of probability, distributions, mathematical expectation, moments, and generating functions. **Prerequisite:** MATH 3345 or equivalent.

# MATH 5352: Mathematical Statistics

Study of the mathematical basis of statistical analysis with emphasis given to sampling distributions, testing hypotheses, interval estimation, and multivariate analysis. **Prerequisite:** MATH 5351.

# MATH 5381: Applied Mathematics I

Ordinary differential equations, partial differential equations, and dynamical systems, complex variables, spectral theory, transformations and modeling. **Prerequisites:** MATH 3203 and MATH 3305 or CI.

# MATH 5383: Topics in Applied Mathematics

An exploration of various topics in applied and computational mathematics. Materials covered may include mathematical modeling, optimization and control theory, game theory, mathematical physics, and mathematical biology. Course may be repeated when content changes. **Prerequisite:** MATH 5381.

# MATH 5390 & 5391: Selected Topics in Mathematics

Topics are selected to meet the needs of students and vary from semester to semester. Courses may be repeated when the content changes. **Prerequisite:** Consent of department chair.

# MATH 5395: Research

Research methodology in mathematics, requires individual research, and culminates in a written report. **Prerequisite:** Completion of 15 graduate credit hours of mathematics and consent of instructor.

# MATH 5396: Thesis

Student research that culminates in the completion of a formal thesis. **Prerequisite:** MATH 5395 and appointment of a thesis advisor.

# MATH 5199 - 5399: Independent Study

Independent study in specific areas of mathematics not covered by organized courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# MTED 5198-5398: Topics in Mathematics Education I

Topics are selected to meet the needs of the students and vary from semester to semester. Courses may be repeated when content changes. **Prerequisite:** Consent of graduate advisor.

# MTED 5199-5399: Topics in Mathematics Education II

Topics are selected to meet the needs of the students and vary from semester to semester. Courses may be repeated when content changes. **Prerequisite:** Consent of graduate advisor.

# Music--Applied (MUAP)

All Applied Music courses listed below are two credit hours. Students are required to furnish their own instrument and music materials. All lessons will be taught in the studio of the instructor. Transportation to and from the lesson will be the responsibility of the student. Permission to enroll will be granted by the coordinator of the Music Program after and/or conference with each student who applies. A fee of \$75 will be charged for each course in Music Applied. Graduate courses (5000-level) may be repeated once for credit.

MUAP 5271: Accompanying

MUAP 5226: Bassoon MUAP 5229: Clarinet MUAP 5213: Contrabass MUAP 5220: Flute MUAP 5241: French Horn MUAP 5272: Group Piano MUAP 5261: Guitar MUAP 5270: Harpsichord MUAP 5221: Oboe MUAP 5266: Organ MUAP 5257: Percussion MUAP 5269: Piano MUAP 5233: Saxophone MUAP 5246: Trombone MUAP 5237: Trumpet MUAP 5253: Tuba MUAP 5205: Viola MUAP 5281: Voice MUAP 5201: Violin

MUAP 5209: Violincello

# Music (MUSI)

# MUSI 5330: Studies in Music History, Literature, and Theory

Selected topics from one or more areas of music history, literature and theory. May be repeated three times for credit when content changes. **Prerequisite:** Consent of department chair.

# MUSI 5199-5699: Independent Study

Independent study in specific areas of music not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Music Education (MUED)

# MUED 5311: Problems in Music Education

Study of one or more problems in music. Problems chosen may not duplicate the scope of another course offered for credit. **Prerequisite:** Consent of instructor.

# MUED 5199-5699: Independent Study

Independent study in specific areas of music education not covered by organized graduate courses. A maximum of six credit hours for independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Music Ensembles (MUEN)

# MUEN 5125: Jazz Improvisation

The basics of listening skills, chord structure , and blues scales are used as a foundation for improvisation. **Prerequisite:** CI.

# MUEN 5135: Jazz Ensemble

A performing music ensemble open to all students by audition. Compositions performed are for traditional "big band" instrumentation. Several public performances per semester are required.

# MUEN 5140: Wind Ensemble

The UT Tyler Wind Ensemble is a performing ensemble of wind and percussion instruments open to all university students. The ensemble performs three performances of artistic literature each semester.

# MUEN 5145: Choir

Open to any student who is interested in singing, although a conference with the director is necessary prior to enrollment. Includes a general survey of choral literature from the Renaissance to the present. May be repeated once for credit.

# MUEN 5155: Patriot Singers

The Patriot Singers is a small vocal ensemble that performs jazz, Broadway, show tunes, gospel, popular and other similar genres. Enrollment is only by competitive audition each semester.

# Philosophy (PHIL)

# PHIL 5320: Studies In Ancient and Medieval Philosophy

A study of selected philosophers from the Greeks to the Renaissance philosophers: Plato, Aristotle, St. Augustine, St. Thomas Aquinas, and others. May be repeated once for credit when content changes.

# PHIL 5325: Studies in Modern Philosophy

A study of selected philosophers from the Renaissance to the present: Descartes, Hume, Kant, Hegel, Nietzsche, Dewey, and Wittgenstein. May be repeated once for credit when content changes.

# PHIL 5327: Contemporary Ethical Issues

A study of some of the most critical ethical issues of the last 100 years such as abortion, euthanasia, and racism and the theoretical foundations on which they rest.

# PHIL 5199 - 5699: Independent Study

Independent study in specific areas of philosophy not covered by organized graduate courses. A maximum of six credit hours for independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# Political Science (POLS)

# POLS 5300: Seminar in Scope and Methods

Detailed review of historical development of the discipline, philosophical and methodological foundations of the profession, and techniques of research and analysis.

# POLS 5311: Seminar in American Government

Study of American political institutions and processes, major political trends, and literatures.

# POLS 5320: Topics in American Government

Research in selected aspects of American government and politics. May be repeated once for credit when content changes.

# POLS 5321: Seminar in Political Theory

Review of major trends in political, economic, and social thought with an emphasis on Western and other select formative traditions.

# POLS 5325: Topics in Texas Government

Research in selected aspects of Texas government and politics. May be repeated once for credit when content changes.

# POLS 5330: Topics in Comparative Politics

Research in selected areas of comparative politics, including area studies and comparative political theories. May be repeated once for credit when content changes.

### POLS 5331: Seminar in Comparative Politics

Study of techniques of comparative analysis. Focus on state, class, societal, and systemic forces in domestic politics. Analysis of both developed and undeveloped nation-states, regions, and populations.

# POLS 5341: Seminar in International Relations

Review of major theoretical literatures analyzing global events, trends, and influences. Focus on foreign policy, political economy, defense issues, and economic exchange.

# POLS 5345: Topics in International Relations

Research in selected aspects of international politics, law, and organization. May be repeated once for credit when content changes.

# POLS 5350: Topics in Political Theory

Research in selected aspects of political theory. May be repeated once for credit when content changes.

# POLS 5385: Directed Reading

Choice of reading topics, under faculty supervision, in preparation for comprehensive written examination. **Prerequisite:** Consent of advisor.

# POLS 5386: Directed Reading

Completion of directed reading, under faculty supervision, in preparation for comprehensive written examination. **Prerequisites:** POLS 5385 or concurrent enrollment and consent of advisor.

# POLS 5395: Thesis

Selection of research topic and development of a thesis plan. **Prerequisite:** Consent of advisor.

# POLS 5396: Thesis

Completion and approval of thesis. **Prerequisites:** POLS 5395 or concurrent enrollment and consent of advisor.

# POLS 5199 - 5699: Independent Study

Independent study in specific areas of political science not covered by organized graduate courses. A maximum of six credit hours may be applied toward a graduate degree. **Prerequisite:** Consent of instructor.

# Public Administration (PADM)

# PADM 5330: Survey of Public Administration

Focuses on the special challenges facing public agencies and administrators. This course emphasizes issues surrounding agency relations with outside constituencies, responsibility and accountability in public management and administrative ethics. Intended to be taken early in the student's degree program.

# PADM 5331: Information Systems in Public Administration

Studies concepts, structures, and applications relevant to information technology and public administration. The focus of the course is on integrating material from the technical and managerial fields to improve the processing of information for decision-making in public administration. **Prerequisite:** Social sciences research methods course.

# PADM 5332: Public Budgeting and Finance

The processes and policies used to allocate limited public resources; special attention given to contemporary budgetary approaches and to methods of evaluation. The managerial role in providing fiscal accountability and control is emphasized.

# PADM 5335: Topics in Policy Analysis

Research in selected aspects of policy analysis including policy formulation, implementation, and evaluation. May be repeated once for credit when content changes with consent of the graduate coordinator.

# PADM 5336: Administrative Ethics

A study of ethical issues facing public administrators. Issues include the development of value systems, the nature of public duty, the formulation of value-based decision making strategies, the importance of professional ethical standards, the dangers of public corruption, and the unique problems facing criminal justice managers.

# PADM 5337: Administrative Law

Examines the exercise and control of administrative action. The focus of the course is on how administrative power is exercised through rule making and adjudication and controlled by the legislative, executive and judicial branches of government.

# PADM 5338: Program Evaluation

Study of the role and methods of program evaluation. Topics include identification of program goals, research design, measurement, data collection, data analysis, and the consequences of program evaluation. **Prerequisite:** PADM 5396.

### PADM 5339: Urban and Regional Planning

Analysis of planning theories and techniques used in shaping the urban environment. Topics include long-range, comprehensive planning; neighborhood adaptations and the environment; planning for rural development and economically depressed regions; and planning for housing, transportation and community facility programs.

# PADM 5344: Health Policy and Politics

How health policy in the United States is initiated, formulated and implemented. The course will provide an understanding of the structure of the political process in the making of health policy and political roles of the President, Congress, and the bureaucracy in shaping health care policy. Major acts in health care development will be discussed along with future demands from the health system. Local health care professionals will be brought in to share their expertise and experience in the local health care industry.

# PADM 5350: Seminar in Human Resources Management (Same as MANA 5350)

Advanced study of public and private personnel management with special emphasis on current topics in the field. Focuses on the technical and legal issues confronting human resource management: employee selection, training, appraisal, compensation, and labor-management relations.

#### PADM 5380: Topics in Public Administration

Studies in selected aspects of public administration. May be repeated once for credit when content changes with consent of graduate coordinator.

#### PADM 5396: Research Methods

Focuses on research design and methods as they are employed in administrative settings. Included among the topic areas are sampling, hypothesis testing and estimation, quantitative data analysis and measures of association. **Prerequisite:** Three hours of upper-level social sciences research methods and consent of the graduate coordinator.

### PADM 5397: Advanced Social Science Analysis

Examines common methods of data analysis and presentation with attention to computerized applications. Emphasis on the application of statistics in social science research. **Prerequisite:** PADM 5396.

# Sociology (SOCI)

# SOCI 5302: Seminar in Deviance

Presents and evaluates functionalist, conflict, labeling, and other social theories of deviance.

#### SOCI 5307: Seminar In Metropolitan Problems

In-depth study of the conditions underlying major social problems in big cities. Also an examination of many current metropolitan problems such as transportation and housing.

# SOCI 5310: Internet Communities

The Internet's influence on intimate and family relations, its contribution to building a global society, and the internet communities in education,

commerce, crime, professions, and social and individual services are analyzed and evaluated.

### SOCI 5321: Intercultural Studies

A cross-cultural analysis of dominant-minority relations. Ethnic relations in both the United States and other countries will be examined.

### SOCI 5325: Topics In Social Problems

Studies in social problems. Up to six semester hours may be applied to a degree. No topics may be repeated.

# SOCI 5341: Seminar in Marriage and the Family

Mate selection, marriage, family types and alternate life styles are related to sex ratios, ethnicity and social class. Living arrangements and child bearing patterns are related to child well-being. Various mate selection methods are described.

### SOCI 5380: Seminar in Sociological Theory

In-depth analysis of selected sociological theories.

### SOCI 5385: Studies In Demography

Examines demographic theory and methods in the context of historical and current population problems. The major focus is on the United States, especially local and regional population issues. Students are guided in a practical study using the census and other demographic sources.

### SOCI 5388: Applied Research I

Independent research under the tutelage of the major professors. **Prerequisites:** Admission into the graduate program in sociology; completion of core courses in program.

### SOCI 5389: Applied Research II

Completion of research paper under tutelage of major professor. May be repeated. **Prerequisite:** SOCI 5388

#### SOCI 5394: Thesis

Selection of research topic and development of thesis plan. **Prerequisites:** Admission into the graduate program in sociology; completion of core courses in program.

### SOCI 5395: Thesis

Completion and defense of the thesis. May be repeated with permission of major professor. **Prerequisite:** SOCI 5395.

#### SOCI 5396: Seminar in Social Science Research

Focuses on research design and methods as they are employed in social sciences. Topics include sampling, hypothesis testing, quantitative data analysis, and measures of association.

#### SOCI 5397: Studies in Applied Sociology

Focuses on the practical application of sociological theories, methods, and research relevant to social planning, community organization/development, and patterns of adjustment to social change.

# SOCI 5199 - 5699: Independent Study

Independent study in specific areas of sociology not covered by organized graduate courses. A maximum of six credit hours may be applied toward a graduate degree. **Prerequisite:** Consent of instructor.

# Spanish (SPAN)

# SPAN 5368, 5668: Field Study in Spanish

Provides the students with the opportunity for total immersion in the language and the culture by studying in a Spanish speaking country. Students will have the opportunity to study historical sites and museums, conduct field research on a given topic which includes some travel and to live with a Hispanic family.

# Theatre (THTR)

# THTR 5142: Modern Acting Styles and Theories

Advanced lecture and performance course to develop the process of analysis, creation and performance of dramatic characters as by theatre, film, and

television. **Prerequisite:** Two undergraduate courses in acting or equivalent experience and consent of instructor.

# THTR 5310: Theatre History: The Greeks to Ibsen

A study of the development of dramatic literature from the classical foundations to the beginning of realism.

# THTR 5311: Theatre History: Ibsen to Beckett

A study of the development of dramatic literature in the theatre from the beginning of Realism to the present.

# THTR 5320: Theories of Drama: Comedy and Tragedy

An examination of the major dramatic theories concerning comedy and tragedy with examples taken from selected plays and playwrights.

# THTR 5321: Creative Dramatics: An Art for Children

Theory and practice in creative dramatics techniques for parents, teachers and leaders of children in any capacity to aid them in developing character and personality of children through the dramatic experience in creative group activity.

# THTR 5329: Topics in Drama

A study of selected drama topics with emphasis on current ideas and literature. May be repeated once for credit when content changes.

# THTR 5199-5699: Independent Study

Independent study in specific areas of drama not covered by organized graduate courses. A maximum of six credit hours for independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# GRADUATE COLLEGE OF BUSINESS AND TECHNOLOGY

### Dr. Harold Doty, Dean

The College of Business and Technology offers the following graduate degrees:

Master of Business Administration

Master of Science in Human Resource Development

Master of Science in Industrial Technology Ph.D. in Human Resource Development

# Master of Business Administration

The basic objective of the Master of Business Administration (MBA) degree program is to offer individuals an opportunity to develop corporate leadership ability in an increasingly complex and dynamic global society by enhancing their knowledge, managerial skills and perspective. The broad, integrated curriculum provides the student with an opportunity to gain understanding of the major facets of multinational business operations in a competitive environment. The program includes work in the theoretical foundations of business, quantitative controls, decision-making, the development of advanced functional skills, and the global and ethical environment of business. An opportunity is also provided for a limited degree of specialization. The degree is delivered on campus, via the internet and at locations in Longview and Palestine.

The program is a non-thesis program designed for graduates from recognized colleges of business as well as graduates in liberal arts, science, engineering, nursing, or other fields desiring to undertake professional studies in the area of business administration. This degree can be completed with any combination of face-to-face, hybrid, or online course offerings including courses offered via the UT Telecampus.

# Admissions

In addition to the general requirements for admission to graduate study and consistent with the UT Tyler Graduate Policies, the requirements to be a graduate degree student in business administration are the following:

- A. Admission to the MBA degree program is determined primarily on the basis of predictors of success in graduate study: (1) a baccalaureate degree from an accredited institution, (2) grade point average computed on the last 60 undergraduate hours, and (3) a satisfactory score on the Graduate Management Admissions Test (GMAT). In rare instances, the Graduate Record Examination (GRE) may be accepted in lieu of the GMAT. Consideration is also sometimes given to other factors such as work experience, community service, military service, first generation of family to graduate from an undergraduate program, family responsibility of raising children, multilingual proficiency, or geographic region of residence.
- B. Proficiency in the use of the English language is critical to program success.

A foreign student must score a minimum of 550 on the paper-based or 213 on the computer-based Test of English as a Foreign Language (TOEFL) and have a minimum raw score of 50 on each of the three sections of the examination. Only the TOEFL examination given by the Educational Testing Service is acceptable. The student will be notified by the Business Graduate Programs Coordinator if he/she has or has not successfully satisfied this requirement.

- C. No more than nine semester credit hours of graduate credit earned prior to acceptance into the program, including transfer credit, may be applied to the MBA degree. Students seeking admission to the MBA program who have not yet satisfied admission criteria may be admitted as conditional or provisional students and allowed to complete one semester with up to nine hours of coursework. Conditional students or provisional students must earn a grade of B or better in all work attempted in prescribed courses. A conditional or provisional student who earns a grade of C or lower will be denied admission to the MBA program.
- D. After reviewing all credentials (official transcripts, GMAT score, other relevant information), the Director of Master Programs and the College of Business and Technology Graduate Policy Committee will determine if the student may be accepted into the MBA program. A degree plan will be prepared by the Graduate Program Advisor with the student. A letter will then be sent notifying official acceptance into the MBA program. Acceptance must occur prior to enrollment beyond nine semester credit hours including any transfer credit.
- E. Successful completion or waiver of the MBA Leveling Sequence. Students who do not have an undergraduate business degree from an AACSB accredited school are required to complete 15 graduate hours of leveling classes prior to the beginning of the formal MBA coursework. Students without BBA degrees, but with the appropriate undergraduate coursework, may be allowed to waive some or all of the MBA Leveling Sequence. The Leveling Sequence includes:

Subject areas	Equivalents at UT Tyler	Credit hours
Economic Concepts and Processes	ECON 5300	3
Accounting Concepts and Processes	ACCT 5300	3
Management Concepts and Processes	MANA 5300	3
Marketing Concepts and Processes	MARK 5300	3
Financial Concepts and Processes	FINA 5300	3
Total:		15

Additional courses may be required in certain circumstances. Substitution of courses will be determined by the Director of Masters Programs in consultation with the faculty. Generally, six (6) undergraduate semester credit hours in the appropriate topics are required to replace any one of the graduate leveling courses.

Although a student may not have completed all baccalaureate work at the time of application, a decision will be made on the strength of the student's permanent record before the student can be enrolled as a graduate student in business.

The student must maintain a 3.0 grade point average (4.0 basis) on all graduate work at UT Tyler. No course with a grade below "C" may be applied toward this degree.

Successful completion of MANA 5395: Formulating and Implementing Strategy with a "B" or better will constitute satisfaction of the comprehensive examination requirement.

# Transfer of Credit

Subject to the approval of the Director of Master's Programs and the Dean of the College of Business and Technology (CBT), a student may transfer up to nine (9) hours of graduate credit earned at an approved institution. Graduate credit over three years old at the time of admission generally may not be used to meet degree requirements. Credit earned from correspondence courses cannot transfer for graduate credit.

Courses completed via the UT Telecampus are considered "local" courses and do not count against the number of transfer hours allowed.

# MBA Degree Requirements

The MBA degree	requirements are outlined below:	
ACCT 5320:	Accounting for Management Control	3
ECON 5320:	Advanced Economic Analysis	3
FINA 5320:	Advanced Financial Management	3
MANA 5315:	Quantitative Management Tools	3
MANA 5305:	Decision Making in Operations	3
	Management	
MANA 5350:	Strategic Human Res. Mg't.	3
MANA 5320:	Leading and Managing People	3
MARK 5320:	Advanced Marketing Fundamentals	3
MANA 5395:	Formulating and Implementing Strategy*	3
Electives		9
Totals		36
****		<b></b>

\*Satisfies the comprehensive examination requirement for the MBA program.

# **Industry Specific Preparation**

Students who wish to develop a specific foundation to pursue their desired career objective may tailor the MBA program to meet specific requirements of certain industries, positions, or business sectors. Such preparation in the MBA program may be accomplished via targeting the nine (9) semester credit hours of elective courses to enhance a student's skill set within a specific field of study. Students may select from the options specified below or design a unique specialization by selecting graduate courses from other areas across the university. Students are advised to consult with the MBA office prior to enrolling in such courses.

# Health Care Industry

The MBA Health Care Industry specific program is designed to provide students with industry relevant knowledge in the fundamental areas of the health care profession. The industry specific concentration develops skills relevant to the health care profession and provides exposure to contemporary issues in health care. Relevant courses might include: PADM 5344, PADM 5332, MARK 5370, ALHS 5350.

# Accountancy Industry

The MBA Accountancy Industry specific program is designed to provide students with industry relevant knowledge in the fundamental areas of the accounting profession. The industry specific preparation provides exposure to contemporary issues in accounting and develops advanced accounting skills. The program is designed to both develop and enhance skills necessary to function effectively within private businesses, non-profit organizations, and public agencies.

# Quality Management

Individuals with specializations in quality management are attractive across a broad spectrum of industries and in both the service and manufacturing sectors of the economy. Students interested in this area of specialization should select courses from across the university that focus on quality issues, and should consider taking TECH 5310: Six Sigma Quality, TECH 5320: Total Quality Management, and TECH 5335: Lean Manufacturing.

# Organizational Development

Students interesting in careers in Organizational Development are likely to find positions as internal consultants in large organizations or with either professional consulting firms or the business consulting services associated with management development and accounting firms. Students interested in this area should consider enrolling in HRD 5352: Organizational Development, HRD 5384: Change Diversity and Conflict Resolution, MANA 5345: Strategic Leadership Processes or MANA 5390: Designing Effective Organizations.

# Accounting BBA - MBA

# General Degree Information

The BBA-MBA integrated programs leads to Bachelor of Business Administration in Accounting and Masters of Business Administration for those students who wish to pursue a career as a CPA. This program contains 150 hours of course credit (120 semester credit hours required for BBA) and is designed to meet the needs of the profession as required by the Public Accountancy Act as it complies with all the educational requirements for those who wish to take the CPA exam.

The BBA-MBA program includes study resulting in the simultaneous awarding of the BBA and MBA degree.

# Admission Requirements

- A. Admission to the College of Business and Technology (CBT) as an Accounting major and junior status.
- B. Hold a grade point average of 2.75 or higher prior to admission.
- C. BBA core complete.
- D. Application to Graduate Studies with a GMAT score submitted to UT Tyler Office of Graduate Admissions.
- E. Maintain a minimum gpa of 3.0 on all required program course work. No grade below "C" can be used to satisfy degree requirements.

Hr

# **Required Course Work**

Required undergraduate courses Number Title

ACCT 2211	т. 1. а. т	S
ACCT 3311:	Intermediate Accounting I	3
ACCT 3312:	Intermediate Accounting II	3
ACCT 3315:	Cost Accounting	3
ACCT 3325:	Income Tax I	3
ACCT 3326:	Income Tax II	3
ACCT 4330:	Government and NFP Accounting	3
ACCT 4380:	Auditing	3
ACCT 4391:	Accounting Information Systems	3
FINA 3311:	Principles of Finance	3
BLAW 3301:	Business Law & Social Responsibility	3
BLAW 4340:	Bus & Professional Ethics	3
MANA 3311:	Managing People in Organizations	3
MANA 3305:	Business Writing and Oral	3
	Presentations	
MANA 3370:	Information and Commun. Tech.	3
MANA 4395:	Strategic Management	3
MARK 3311:	Principles of Marketing	3
	Upper Division Electives	9

At this point, a student may choose to pursue an Accounting BBA only. The remaining courses for the Accounting BBA are the following:

Number	Title	Hrs
MANA 3170:	How to Get a Job	1
	Upper Division Elective	3
	Upper Division Elective	3

To complete the integrated Accounting BBA- MBA program, the following course must be completed.

Number	Title	Hrs
ACCT 5385:	Advanced Accounting Theory	3
ACCT 5360:	Advanced Problems in Accounting	3
FINA 5320:	Advanced Financial Management	3
ECON 5320:	Advanced Economic Analysis	3
MANA 5305:	Decision Making in Operations	3
	Management	
MANA 5315:	Quantitative Management Tools	3
MANA 5320:	Leading and Managing People	3
MANA 5350:	Strategic Human Resource	3
	Management	
MANA 5395:	Formulating and Implementing	3
	Strategy	
MARK 5320:	Advanced Marketing Fundamentals	3
or	0	
MANA 5390:	Designing Effective Organizations	3
Total	8 8 8	30

# Master of Business Administration Online (MBAO)

The Master of Business Administration Online (MBAO) degree is offered in cooperation with other members of the University of Texas System and is a stand-alone program. It should not be confused with hybrid or online offerings that are offered by UT Tyler in conjunction with the MBA program that is specific to the UT Tyler campus.

The MBAO is a general management program delivered via distance education technologies. The UT TeleCampus, a virtual campus dedicated to distance learning support services, facilitates the design and delivery of the asynchronous collaborative degree program.

A consortium of Colleges of Business Administration at the following institutions participate in the MBA Online program:

The University of Texas at Arlington

The University of Texas at Brownsville

The University of Texas at Dallas

The University of Texas at El Paso

The University of Texas - Pan American

The University of Texas of the Permian Basin

The University of Texas at San Antonio

The University of Texas at Tyler

All members of the consortium are accredited by the Southern Association of Colleges and Schools to offer an MBA degree and with the exception of UT Brownsville, all consortium members are accredited by the AACSB.

All participating institutions have authority from the Texas Higher Education Coordinating Board (THECB) to offer an MBA degree and to accept the courses included in the MBA Online degree plan.

# **MBA** Online Degree Requirements

Computer and statistical literacy must be demonstrated by completing an undergraduate course in each description or other evidence of competency. All equivalent methods of satisfying subject area requirements must be approved by the Director of Master's Programs

Number	Core Requirements	UT Tyler Equivalent	Hrs
MBAO 6311:	Accounting Analysis	ACCT 5300	2
	Accounting Analysis		3
MBAO 6312:	Economic Analysis	ECON 5300	3
MBAO 6313:	Management	MANA 5320	3
MBAO 6314:	Quantitative Analysis	MANA 5315	3
MBAO 6315:	Marketing Mgmt	MARK 5320	3
MBAO 6316:	Financial Mgmt	FINA 5320	3
Other Courses	C		
MBAO 6331:	Applied Business Research	MARK 5380	3
MBAO 6332:	Management Info. Systems	MANA 5340	3
MBAO 6333:	Legal Environment of Bus.	BLAW 5310	3
MBAO 6334:	Prod. and Operations Mgt.	MANA 5305	3
MBAO 6335:	Current Topics in Financial	FINA 5320	3
	Management		
MBAO 6336:	Managerial Accounting	ACCT 5320	3
MBAO 6371:	Human Resource Mgt.	MANA 5350	3
MBAO 6372:	Org. Leadership and Change	MANA 5345	3
MBAO 6373:	International Management	MANA 5370	3
MBAO 6395:	Strategic Management	MANA 5395	3
Total required hours 48			48

MBAO 6371, MBAO 6372, and MBAO 6373 may not be taken until the student has completed 15 hours or equivalent of graduate work in the MBA Online program. MBAO 6395 should generally be completed in the final semester.

The MBA Online program will be offered predominately using the Internet, but courses may also include supplemental materials such as video/audio tapes and CD-ROM's. All courses are developed according to the The Texas Higher Education Coordinating Board's Principles of Good Practice.

Subject to approval by the Graduate Programs Coordinator and the dean of the College of Business and Technology, students may transfer up to six hours of graduate credit earned at an approved university that is not a member of the MBA Online consortium. Students must maintain at least a 3.0 grade point average (4.0) basis) on all graduate work attempted in the MBA Online program. A student whose GPA is not restored to 3.0 after one grace semester will be dismissed from the MBA Online program.

# MBA Online Admission Criteria

Consistent with UT Tyler Graduate Policies, students must apply to and be admitted to The University of Texas at Tyler and accepted in the MBA Online program. MBA Online students must meet the following criteria:

- A. A satisfactory GPA on all prior advanced-level (junior, senior and graduate) work completed.
- B. A satisfactory score on the Graduate Management Admissions Test (GMAT).

International students must score a minimum of 550 on the paper-based or 213 on the computer-based Test of English as a Foreign Language (TOEFL) with a minimum score of 50 (paper-based equivalent) on each of the three sections of the examination. Only the Educational Testing Service TOEFL examination is acceptable.

Application and acceptance deadlines for the MBA Online program change from year to year. Additional information concerning the MBA Online can be found at the following world wide web addresses: http://www.uttyler.edu/cbt/mbaonline and http://www.telecampus.utsystem.edu.

# The Coordinated Master of Science in Nursing and Master of Business Administration

This coordinated Master of Science in Nursing and Master of Business Administration (MSN-MBA) degree option will prepare the nurse executive to ensure excellence in client care services, and also to impact the business environment in which nurses practice. This degree option incorporates content in management, economics, finance, and marketing into a framework for nursing service and health care administration. The coordinated degree can be completed in 57-60 semester credit hours, including prerequisite courses for both Business Administration and Nursing.

In addition to the general graduate admission requirements of The University of Texas at Tyler, students applying for admission to the MSN-MBA coordinated degree option must meet the College of Nursing and Health Sciences and the College of Business and Technology requirements listed elsewhere in this catalog under the College of Nursing, the coordinated Master of Science in Nursing and Master of Business Administration.

# Degree Requirements (MSN-MBA)

(See, College of Nursing and Health Sciences)

The course requirements for the coordinated degree option are as follows. Courses are listed in alphabetical order by discipline.

DI	lows. Courses are listed in alph	labetical order by discipline.
	NURS 5308:	Contemporary Nursing Ethics
	NURS 5312:	Nursing Theory
	NURS 5320:	Research Design
	NURS 5324:	Health Care Informatics
	HECC 5317:	Biometrics Methods
	or MANA 5315:	Quantitative Management Tools
	NURS 5315:	Assessment of Nursing Management
	NURS 5326:	Implementation of Nursing Management
	NURS 5330:	Evaluation of Nursing Management
	MANA 5320:	Managing People in Organizations
	NURS 5334:	Professional Scholarship
	or NURS 5395:	Thesis
	ACCT 5300:	Accounting Concepts & Procedures
	ACCT 5320:	Accounting for Management Control
	ECON 5300:	Economic Concepts & Processes
	ECON 5340:	Economics of Public Policy
	FINA 5320:	Advanced Financial Management
	MANA 5305:	Decision Making in Operations Management

# GRADUATE COLLEGE OF BUSINESS AND TECHNOLOGY

MANA 5350:	Strategic Human Resource Management
MARK 5370:	Health Care Marketing in Contemporary
	Society
MANA 5395:	Formulating and Implementing Strategy (after
	27 hrs)

Students completing the MSN-MBA coordinated degree option will be awarded their two degrees in the same academic term.

# The Coordinated Master of Business Administration and Master of Science Mechanical Engineering

This coordinated MBA-MSME degree option incorporates content in management, economics, finance, and marketing into a framework for mechanical engineering. The coordinated degree can be completed in 57 semester credit hours including courses for both Business and Engineering.

In addition to the general graduate admission requirements of The University of Texas at Tyler, students applying for admission to the MBA-MSME coordinated degree option must meet the College of Business and Technology and College of Engineering and Computer Science requirements listed elsewhere in this catalog.

# Degree Requirements MBA-MSME

Note: See College of Engineering and Computer Science

The course requirements for the coordinated degree are as follows:

# MSME Courses

# Two of the following:

ENGR 5300:	Systems Engineering
ENGR 5327:	Quality Control and Statistics
ENGR 5320:	Reliability Analysis
ENGR 5323:	Design of Experiments

# One of the following:

ENGR 5318:	Manufacturing Systems
ENGR 5322:	Human Factors
ENGR 5324:	Engineering Project Management
ENGR 5331:	Constraints Management
ENGR 5332:	New Project Development

# Six Project hours

ENGR 5650:	Engineering Project (six hours)
or ENGR 5350:	Engineering Project (taken twice)

15 additional hours of approved Mechanical Engineering Graduate Courses semester hours

# **MBA** Courses

Thirty semester hours of graduate business courses:		
ACCT 5300:	Accounting Concepts and Processes	
ACCT 5320:	Accounting for Management Control	
ECON 5300:	Economic Concepts and Processes	
ECON 5320:	Advanced Financial Management	
MANA 5305:	Decision Making in Operations Management	
MANA 5320:	Leading and Management People	
or MANA 5390:	Designing Effective Organizations	
MARK 5320	Advanced Marketing Fundamentals	
MANA 5350:	Strategic Human Resource Management	
MANA 5395:	Formulating and Implementing Strategy	

Students completing the MBA-MSME coordinated degree option will be awarded both degree simultaneously upon completion of the joint program.

# Certificate Programs in Business

# Accounting

The Accounting Certificate Program is designed to provide students who hold a baccalaureate from an accredited college or university the appropriate course work and course credit hours to sit for the CPA exam.

# Admission Requirements

Students interested in this program should consider the Master of Professional Accounting currently under development. In addition to the general graduate admission requirements of The University of Texas at Tyler, students applying for admission to this certificate program are expected to submit a portfolio for evaluation consisting of the following.

- A. Baccalaureate from a nationally accredited college
- B. Completion of an application
- C. Submission of official transcripts and two references
- D. Consideration for admission is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study; socioeconomic background; and involvement and level of responsibility related to other factors, including extracurricular activities, employment, community service, first generation of family to graduate from an undergraduate program, family responsibility for raising children, multilingual proficiency, or geographic region of residence.

Each certificate candidate's academic record will be evaluated to ascertain what deficiencies, if any, must be satisfied.

# Certificate Requirements

# Leveling courses:

ACCT 5300:	Accounting Concepts and Processes*
ECON 5300:	Economic Concepts and Processes*

# Required courses:

ACCT 5320:	Accounting for Management Control
ACCT 5360:	Advanced Problems in Accounting
ACCT 5385:	Advanced Accounting Theory
BLAW 5340:	Business and Professional Ethics
Total	18 semester credit hours

\*Students with six (6) hours of undergraduate accounting or economics may not receive credit for the 5300 courses. These students must substitute another graduate course (with advisor's approval) to satisfy the requirement.

# Completion of the Certificate

The successful completion of 18 semester credit hours is required to complete the certification program (see courses listed above). Additional semester hours may be required before the candidate can sit for the CPA exam. If so, the student may enroll in undergraduate or graduate accounting classes as advised by the graduate advisor until all CPA exam requirements are met. Individuals receive college credit for each course completed. These courses will be listed on an official university transcript and a certificate of completion will be awarded.

# Academic Standing

Students must maintain a cumulative grade point average of 3.0 or higher. Credits earned in the fulfillment of the Accounting Certificate Program may be applied to the Masters of Business Administration degree program. All other graduate degree requirements and policies are applicable to the certificate program.

# Organizational Development and Leadership

The Organizational Development and Leadership Certificate program prepares the student to apply the theories in leadership and organizational behavior and human resource development to organizational settings and consulting environments. The program enables students to utilize knowledge and skills required to lead, facilitate, and train within an organizational setting in addition to consult in the area of leadership, organizational development and change management.

# Admission Requirements

In addition to the general graduate admission requirements of The University of Texas at Tyler, admission to the certificate program is contingent upon favorable review by the graduate committee. Admission to the certificate program requires the submission of a portfolio consisting of the following information.

- A. A baccalaureate or advanced degree from an accredited college or university
- B. Original transcripts
- C. Three (3) reference letters that support the applicant's suitability for graduate studies.
- D. The admission process is complete when (a) the applicant has been notified in writing of acceptance to the certificate program and (b) a certificate plan of study has been signed by the student and the coordinator of graduate programs.

Students must maintain a cumulative grade point average of 3.0 or greater. Upon successful completion of approved 18 semester credit hours, students will be awarded a certificate. Credits earned in fulfillment of the Organizational Development and Leadership Certificate Program may be applied to other graduate degrees in the College of Business and Technology. All other graduate degree regulations and policies are applicable to the certificate program.

# Curriculum (18 hours total)

Foundation courses (9 credit hours from the following):

MANA 5350:	Strategic Human Resources Management
MANA 5320:	Leading and Managing People
MANA 5345:	Strategic Leadership Process
HRD 5384:	Change, Diversity and Conflict Resolution
HRD 5352:	Organization Development

Elective courses (9 credit hours)

# Human Resource Development and Technology

The Department of Human Resource Development and Technology offers three graduate degrees: Master of Science in Human Resource Development, Master of Science in Industrial Technology, and Ph.D. in Human Resource Development.

# Admission Requirements:

Admission to each program requires a satisfactory score on the General Test of the Graduate Record Examination (GRE) and a satisfactory undergraduate grade point average as well as official transcripts and two letters of recommendation. The general requirements for the degree may be found in the General Degree Requirements section for the College of Business and Technology. In addition to the general requirements for admission to graduate study, the prospective graduate degree student in HRD or industrial management without adequate preparation may be required to take additional undergraduate courses to complete deficiencies. In addition to the Graduate Admission Requirements listed in this catalog, to be considered for admission, applicants must submit:

- A. Graduate Record Examination scores 5 years of age or less on the General Test
- B. Complete official transcripts
- C. An application for Graduate Studies
- D. Three letters of recommendation, preferably from persons who have directly observed the applicant's academic and/or career performance, and

Applications are reviewed on an individual basis and are based on multiple criteria including letters of reference, work experience, GRE scores and grade point average (GPA) in the last sixty hours of undergraduate work. Successful applicants usually have GPA of 3.0 or better and GRE scores at the fiftieth percentile or better. Applicants who believe their grade point average or their scores are not valid indicators of their ability should explain their concerns in a letter to the HRD/Technology graduate coordinator. The department may elect to require additional assessments of individual applicants. Courses at UT Tyler campus are offered evenings and online. Students may also enroll in courses offered during the summer and at off-campus sites.

# Master of Science in Human Resource Development

Human Resource Development (HRD) is a process of developing human expertise through organization development and personnel training and development so that individual improvement enhances corporate performance. Careers in this field are available in business, nonprofit, educational, and governmental settings. The HRD program provides students the opportunity to combine study and related experiences to develop, apply, analyze, synthesize, and evaluate knowledge of the purposes, practices, issues, and problems of private for profit and public not-for-profit organizations. Students also have the opportunity to learn how to design, deliver, and evaluate effective training programs.

**Degree Requirements:** The Master of Science in HRD is a 36 hr. program which includes the following requirements that may be completed with any combination of face-to-face, hybrid, or online classes:

Professional Core:		6 hrs.
TECH 5301:	History and Phil of HRD/Technology	
TECH 5303:	Research Techn. in HRD/Technology	
HRD Core:		24 hrs.
HRD 5332:	Instructional Design and Assess.	
HRD 5336:	Adult Learning	
HRD 5322:	Concept of e-Learning	
HRD 5307:	Measurement and Eval. in HRD	
HRD 5347:	Performance Consulting	
MANA 5350:	Strategic Human Resource Management	
HRD 5352:	Organization Development	
TECH 5320:	Total Quality Management	
Electives: Any gra		6 hrs.

# Master of Science in Industrial Technology

The Master of Science in Industrial Technology is designed to prepare the individual for employment which involves management, administration, and other types of leadership positions in industry, business, government, or education.

**Degree Requirements:** The Master of Science in Industrial Technology degree is a 36-hour non-thesis program that includes the following requirements:

Professional Core:		6 hrs.
MANA 5350:	Strategic Human Resource Mgt.	
MANA 5305:	Decision Making in Operations Mgt.	
Technical Core:		24 hrs
TECH 5335:	Lean Manufacturing	
TECH 5331:	Project Management	
TECH 5309:	Industrial Processes and Materials	
TECH 5310:	Six Sigma Quality	
TECH 5317:	Computer Integrated Mfg. or related grad technology course	luate-level
TECH 5312:	Total Productive Maintenance	
TECH 5346:	Environmental Management	
TECH 5366:	Value Stream Management	
Electives	Any graduate-level course	6 hrs.
	Total 3	6 hrs.

# Ph.D. in Human Resource Development

The College of Business and Technology offers a unique doctorate that focuses on human resource development in the context of business and industry that integrates a strategic management perspective. The program is offered in an on-campus format that is designed to prepare human resource development scholars that have a unique understanding of HRD within the context of business and management.

# **Doctoral Program Outcomes**

The graduate of this program will be able to contribute to research and application in the areas of improving job performance, developing

leadership talent within an organization, and facilitating a rapidly changing and culturally diverse workforce.

The doctoral program outcomes for candidates who successfully complete the program:

- 1. Integrate knowledge from HRD and related disciplines to support the development of researchers and scholars for diverse settings
- 2. Conduct research in HRD theory and practice
- 3. Create, synthesize and disseminate knowledge about the discipline
- 4. Provide HRD leaders in the workplace and in educational setting
- 5. Collaborate with national and international leaders to promote the discipline

# Admission Requirements

In addition to the general requirements for admission to doctoral study at The University of Texas at Tyler, the following criteria must be met for entry into the program:

- A. Master's degree in HRD, business administration, management or related field from a college or university approved by a recognized national accrediting body.
- B. 3.0 GPA (on 4.0 scale) on all previous academic coursework.
- C. Submission of GRE scores (in some cases the GMAT may be accepted in lieu of the GRE) taken within 5 years at time of application to the program. Use Institutional Code 6850 to request the GRE score to be sent to UT Tyler.
- D. Submission of a career statement that articulates the purpose for pursing the Ph.D. in HRD and the connection of obtaining the degree with future career goals.
- E. Submission of a complete resume or curriculum vita.
- F. Submission of three original letters of recommendation that address the applicant's potential as a Ph.D. scholar in HRD.

Conditional Admission Requirements: Students who do not meet the requirements for full admission will be required to fulfill one or more of the following conditions:

- A. Take leveling courses if student has no HRD background.
- B. Take a graduate level research methods and statistics courses if student presents no evidence of research experience.
- C. Take 9 hours of doctoral level work with a "B" or better in courses designated by the Director of Doctoral Programs.

# Degree Requirements

The Ph.D. in HRD is a 60-hour program beyond the master's degree, culminating in a dissertation. For all University requirements for the Ph.D. degree, please refer to the Doctoral Policies section of the Graduate Policies and Programs chapter.

The following summarizes the requirements for the Ph.D. in HRD:

Required Core Courses	18
Research Courses	15
Specialization Courses	9
HRD Field Experience	3
Dissertation	15
Total	60

Special Degree Requirements: [For details on university doctoral requirements, see the general graduate section of this catalog and the UT Tyler Graduate Handbook]

- 1. Continued registration in contingent upon a satisfactory annual review of the student's performance.
- 2. The Preliminary Examination may be taken after the student has completed the majority of coursework. Students may not advance to candidacy or register for dissertation hours until all coursework is completed and all portions of the Preliminary Examination have been passed successfully.
- 3. A dissertation of original research contributing to the body of knowledge in HRD will be required. Students must complete a minimum of 15 hours of dissertation credits.
- 4. Students must meet all doctoral degree requirements of the University.

5. Students have a maximum of 9 years to complete the doctoral program. Students will have 5 years to complete the program after entering candidacy. Students unable to complete the program within the designated time limits must file for an extension.

Transfer work: Students may transfer up to 12 hours of coursework with the approval of their advisor and the Director of the Doctoral Program. Students will be responsible for providing necessary documentation of course equivalency. Transferred hours may not be more than three years old at the time of admission and must be courses beyond the master's degree.

# BUSINESS AND TECHNOLOGY GRADUATE COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

# Accounting (ACCT)

# ACCT 5300: Accounting Concepts and Processes

Survey of accounting procedures, accumulation of information regarding the accounting entity, and interpretation for control purposes and managerial decisions. Students who have credit for six hours of principles of accounting may not receive credit for this course.

# ACCT 5310: Problems in Federal Income Taxation

An overview and research of income, deductions, gains, losses, and types of taxable entities. Course addresses the recognition of tax consequences of business transactions. **Prerequisite:** ACCT 5320 or equivalent.

# ACCT 5315: Accounting and Reporting Problems

A study of current accounting and reporting problems. This course uses cases, business situations and simulations to investigate accounting and reporting issues. **Prerequisite:** CI.

# ACCT 5320: Accounting for Management Control

Use of accounting data in the decision-making process and in the analysis and control of business operations. **Prerequisite:** ACCT 5300 or equivalent. Students with 15 or more undergraduate hours of accounting may not receive credit for this course.

# ACCT 5335: Advanced Government and Not-for-Profit Accounting

Accounting for governments and not-for-profit entities. Coverage includes budgets, revenues, expenditures, and required financial reports. **Prerequisite:** ACCT 5300 or equivalent.

# ACCT 5345: Advanced Financial Analysis

A study of various types of financial accounting information, analysis and the role the information plays in business decisions. Comprehensive financial statement analysis and valuation framework that integrates strategy, financial reporting, financial analysis and valuation concepts are used to develop valuation tools and applications. **Prerequisite:** ACCT 5320 or equivalent.

# ACCT 5355: Strategic Cost Management

A study of accounting focusing on cost accumulation, cost allocation and systems design for management decision making purposes. **Prerequisite:** ACCT 5320 or equivalent.

# ACCT 5360: Advanced Problems in Accounting

Accounting theory and practice relating to complex consolidation issues and business combinations. Consolidated financial statements, partnerships and fiduciary accounting are examined. **Prerequisite:** CI.

# ACCT 5370: Special Topics in Accounting

An exploration of current accounting topics that are not covered in other courses. Timely accounting issues are covered. May be repeated for credit when content changes. **Prerequisite:** Consent of graduate advisor.

# ACCT 5385: Advanced Accounting Theory

Investigation of elements of accounting theories and their implementation. Accounting policy, research and standard-setting are examined. **Prerequisite:** CI.

# ACCT 5199 - 5699: Independent Study

Independent study in specific areas of accounting not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied to a graduate degree. Independent study courses are available only to degree seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the College of Business and Technology coordinator of graduate programs. The proposal and the final report become part of the student's permanent record.

# Finance (FINA)

# FINA 5300: Financial Concepts and Processes

Explores the basis of the modern financial infrastructure, investing opportunities, and financial management decisions. Students who have earned credit for principles of finance or equivalent may not receive credit for this course.

# FINA 5310: Financial Institutions

Characteristics of financial institutions, savings intermediation and its effects on the allocation of investment funds, and regulation of financial intermediaries.

# FINA 5320: Advanced Financial Management

Financial management of the firm with special emphasis on financial planning, capital concepts. Students with 15 undergraduate hours or more in marketing may not receive MBA credit for this course. **Prerequisite**: FINA 5300 or equivalent.

# FINA 5330: Investment Portfolio Management

A study of securities and the markets in which they are traded; an analysis of the risk-return tradeoff in examining investments; development of specific tools and techniques for selecting among securities that include: equities, fixed income vehicles, options/futures, real estate, and international securities; construction of portfolios to meet specific investor objectives. **Prerequisite**: FINA 5320 or equivalent.

# FINA 5370: Special Topics in Finance

An exploration of current finance topics that are not covered in other courses. May be repeated once for credit when the topics vary. **Prerequisite**: Consent of graduate advisor.

# FINA 5199 - 5699: Independent Study

Independent study in specific areas of finance not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied to a graduate degree. Independent study courses are available only to degree seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the College of Business and Technology coordinator of graduate programs. The proposal and the final report become part of the student's permanent record.

# Business Law (BLAW)

# BLAW 5310: Business Legal Environment

Introduction to the legal environment of business, legal reasoning, and historical perspective. The influence on economic activity by regulatory agencies in their pursuit of public policy is stressed.

# BLAW 5340: Business and Professional Ethics

A study of ethical problems in business and the foundations for decisions involving ethical issues. Topics include ethical concepts, personal integrity,

individual conscience and company loyalty and responsibility conflict, as they impact on the decision process in the functional areas of business.

# Human Resource Development (HRD)

# HRD 5307: Measurement and Evaluation in HRD/Technology Education

A study of course measurement methods, evaluation procedures, and assessment criteria for learning that takes place in formal business and industrial training and academic classroom environments.

# HRD 5313: Management of Instructional Environment

Designed to provide HRD managers and instructors opportunities in properly organizing and managing learning situations in the classroom, laboratory, or training room.

# HRD 5322: Concepts of E-Learning

A study of the theoretical framework, historical development and practical applications of distance learning. Emphasis is placed on readings, discussion, and hands-on application for the purpose of developing a sound philosophy and knowledge of distance education.

# HRD 5326: Planning and Development of Human Resource Development

Planning, organizing, and developing programs in human resource development.

# HRD 5327: Instructional Delivery

Emphasis on updating instructional abilities including diagnosis, alternative teaching strategies, and evaluation.

# HRD 5328: Human Resource Development Topics

Areas of study in human resource development that reflect contemporary topics not covered by organized courses. Studies to include selected topics such as performance improvement, organization development, and workplace learning. May be repeated for up to 9 hours when topics change.

# HRD 5331: Workforce Development

Evaluation of the work force of the nation and the development of research techniques for identifying, assessing, and evaluating the needs of industry and education for a quality work force.

# HRD 5332: Instructional Design and Assessment

A study of the fundamentals of course construction including job and trade analysis to determine the skills and related technical competencies needed in the development of a course of study.

# HRD 5333: Human Relations

Study of establishing and maintaining effective working relationships among teachers, trainers, and trainers in education, industrial and business settings.

# HRD 5336: Adult Learning

Theory and methods of instruction in adult and continuing education to include learning principles, curriculum organization, evaluation techniques and effective classroom interaction.

# HRD 5342: Trends in Training

Designed to help people in industry best utilize resources for increasing productivity.

# HRD 5343: Foundations of Human Resource Development

Study of the set of systematic and planned activities designed by an organization to provide its employees with the necessary skills to meet current and future job demands: learning and human resource development, needs assessments, task analysis, designing and implementing training programs, evaluating training programs, career development, organizational development.

# HRD 5344: Conflict Resolution

This course involves the study of current theories and techniques on interpersonal, group, and inter-group conflict related to constructive management of organization conflicts and negotiations within organizations.

# HRD 5347: Performance Consulting

Practice oriented models, approaches, and techniques of performance consulting in organizational settings. Students will learn critical skills in identifying gaps for performance improvement and proposing HRD interventions. General performance consulting process will be covered.

# HRD 5350: Leadership and Ethics in HRD

Students will gain an understanding of the change process and change models relative to helping people and organizations adjust to and accept change; research and theory in diversity issues; and the theoretical underpinnings for understating and managing conflicts at all levels will be discussed.

# HRD 5352: Organization Development

This course is designed to provide students with different perspectives on Organization Development at the individual, group, and organizational levels of analysis. Theoretical models will be studied, along with practitioner examples of organizations utilizing organization development interventions.

# HRD 5370, 5371: Internship in HRD

The course offers students the opportunity to obtain learning experiences in business and industry environments. The course requires a minimum of 125 clock hours in the approved internship activity. Course is taken for credit/no-credit. **Prerequisite:** Consent of advisor

# HRD 5384: Change Diversity and Conflict Resolution

Students will gain an understanding of the change process and change models relative to helping people and organizations adjust to and accept change; research and theory in diversity issues; and the theoretical underpinnings for understanding and managing conflicts at all levels will be discussed.

# HRD 6310: Advanced Theoretical Foundations of HRD

The review and assessment of human resource development theories and the scholarly process that is required to develop sound theory in applied disciplines.

# HRD 6311: Seminar in Organizational Change

An analysis of the theories and research on individual and organizational change including incremental and transformational change and top-down versus bottom-up change.

# HRD 6312: Seminar in Contemporary Issues in the HRD Literature

An analysis of contemporary cutting edge issues in the workforce and workplace. The impact of shifting demographics, the information age, and the global integration of work and workplace are studied.

# HRD 6314: Application of Management and Technology in HRD

The application of management theories and tools to human resource development along with the utilization and integration of information and communication technology to achieve human resource development goals.

# HRD 6330: Seminar in Organizational Performance and Behavior

Principles and practices of diagnosing organizational performance requirements, creating performance improvement proposals, documenting workplace expertise, and assessing results from performance improvement interventions

# HRD 6350: Disciplined Inquiry in Human Resource Development

This course is designed to provide learners with an overview of research in general and the research process in particular. It is intended to increase students' understandings of research concepts and procedures, develop an appreciation for HRD research, and to enable students to design and develop a research proposal.

# HRD 6352: Advanced Quantitative Research in HRD

Advanced conception and design of quantitative studies with particular application to the content and context of human resource development. The course leads students through the quantitative research process from start to finish and covers key decisions researchers must make at each stage of the process.

# HRD 6391: Advanced Seminar in Human Resource Development

Selected contemporary topics in human resource development will be presented. May be repeated for credit. Up to nine semester hours may be applied to the degree.

# HRD 6195-6995: Dissertation

Research and preparation of a dissertation required to earn the Ph.D. degree. Dissertation hours must be approved by the student's major professor. The dissertation hours are graded C/NC. **Prerequisite:** Admission to doctoral candidacy.

# Management (MANA)

# MANA 5300: Management Concepts and Processes

A study of the management process, behavioral and structural properties of organizations, and environmental influences surrounding organizations. Students with six undergraduate hours of management may not receive graduate credit for this course.

# MANA 5305: Decision Making in Operations Management

Analysis of the operations management function from a manager's perspective. Qualitative techniques related to decision- making such as linear programming, statistics and simulation are applied to operations management problems in both the service and manufacturing sectors of the economy. **Prerequisite:** MANA 5315

# MANA 5315: Quantitative Management Tools

Topics to be covered include quantitative techniques for decision making, linear programming, inferential statistics and selected quantitative models with computer applications such as SAP.

# MANA 5320: Leading and Managing People

Investigation of issues managers face when trying to lead individuals and organizational units to achieve corporate objectives. Focus of the course emphasizes the individual and group levels of analysis. Students with 15 undergraduate semester hours or more of management may not receive MBA credit for this course.

# MANA 5340: Applications for E-Commerce

Study of advanced applications of management information systems (MIS) in business. Topics include E-Business applications such as SAP for enterprise resource planning and E-Commerce topics such as web design/development and web business models.

# MANA 5345: Strategic Leadership Processes

Focuses on leadership and development issues addressed by members of the top management team and other upper-level managers. Topics include coordination between and among units, managerial control systems, and the development of management talent within the firm.

# MANA 5350: Strategic Human Resources Management

Focus is on the role of HR managers and practices in developing competitive advantage for the firm. Considers the role of both specific HR practices and the overall HR architecture in enhancing firm performance.

# MANA 5370: Special Topics in Management

An exploration of current management topics that are not covered in other courses. May be repeated once for credit when the topics vary. **Prerequisite:** Consent of graduate advisor.

# MANA 5385: New Venture Commercialization

Examine the theoretical ideas and concepts, investigate phases of the entrepreneurial processes. Explore the development of entrepreneurial strategy foundation and implementation together with the incorporation of technology into business, and the development of a business plan. This course may require students to participate in a business plan competition.

# MANA 5390: Designing Effective Organizations

Focus is on the design characteristics of a firm that managers can manipulate to maximize the firm's alignment with the competitive environment. Theoretical and applied examination of the major imperatives in organizational theory including the environmental, technological, and strategic imperatives.

# MANA 5395: Formulating and Implementing Strategy

Students adopt the top management's view of the firm and focus on positioning the firm to gain strategic advantage in the competitive marketplace. Industry analysis, planning and implementation of competitive strategy, evaluation of strategy alternatives, utilization of appropriate controls, and the evaluation of the administrative process are emphasized. **Prerequisite**: Should generally be completed in the final semester.

# MANA 5199 - 5699: Independent Study

Independent study in specific areas of management not covered by organized graduate courses. A maximum of six credit hours of independent study may be applied to a graduate degree. Independent study courses are available only to degree seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and the College of Business and Technology coordinator of graduate programs. The proposal and the final report become part of the student's permanent record.

# Marketing (MARK)

# MARK 5300: Marketing Concepts and Processes

Survey of marketing processes, management and procedures. Topics include consumer behavior, marketing plans, supply chains, media needs, selling, and marketing strategies. Students with six (6) undergraduate semester hours of marketing may not receive graduate credit for this course.

# MARK 5320: Advanced Marketing Fundamentals

An analysis of contemporary problems in marketing with emphasis on dynamic market characteristics. Students with 15 undergraduate hours or more in marketing may not receive MBA credit for this course.

# MARK 5360: Advanced Service Marketing

A study of the production, consumption, and marketing of services; the solutions to problems faced by service managers; and the development of an organization marketing system for the delivery of quality service.

# MARK 5370: Health Care Marketing in Contemporary Society

A review and analysis of current trends in the health care field with a focus on managed care and the implication for business and marketing practitioners.

# MARK 5375: Special Topics in Marketing

Areas of study in marketing that reflect contemporary topics not covered by organized courses. **Prerequisite:** MARK 5320.

# MARK 5380: Marketing Research and Analysis

Examination of approaches and methods of marketing research employed by marketing managers to solve marketing problems; emphasis on survey methodology and applications of statistical methods. **Prerequisite:** MARK 5320.

# MARK 5199 - 5699: Independent Study

Independent study in specific areas of marketing not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied to a graduate degree. Independent study courses are available only to degree-seeking students. The student must request a faculty member to supervise the independent study, write a proposal and have it approved by the sponsoring faculty member and College of Business Administration coordinator of graduate programs. The proposal and the final report become part of the student's permanent record.

# MBA Online (MBAO)

For additional information see the UT TeleCampus website at www.telecampus.utsystem.edu

# MBAO 6311: Accounting Analysis

The course is designed for managers who will use, not prepare, accounting information. It consists of 3 modules: Financial Accounting, Cost Management and Management Control. (ACCT 6305 Accounting Analysis at UT Dallas)

# MBAO 6312: Economic Analysis

The emphasis of this course will be on fundamental aspects of economic analysis relating to individual firms and individual markets. The student will learn the impact of demand, how firms choose prices, the role of costs, the nature of competition and monopoly, the role of property rights, simple network economics, and basic antitrust. Although not heavily used in the course, some reference will be made to calculus. (MAS 6307 Economic Analysis at UT Dallas)

# MBAO 6313: Management

An analysis of formal organizational theory and the interrelationship of individuals in organizations. A study of the organization as a system of authority, status, leadership, direction, culture, ethics, communication and influence. (MANA 6330 Management at UT Pan American)

# MBAO 6314: Quantitative Analysis

Introduction to managerial decision analysis using quantitative tools. Topics include a general framework for decision analysis, decision tables and trees, simulation, linear programming and related techniques, classical optimization, forecasting, and probabilistic and statistical techniques. Uses applicable decision support software. Emphasis is on applications. No textbook is required. All course materials will be provided to the students. (MS 6973 Quantitative Analysis in Business at UT San Antonio)

# MBAO 6315: Marketing Management

An overview of the theory and practice of marketing. Study of the impact of organization structures and processes on the performance of organizational members. The practice of analytic and decision-making skills will be emphasized. (MRKT 6310 Marketing Management at UT Permian Basin)

# MBAO 6316: Financial Management

The study of providing an organization with operating funds and effectively utilizing monetary resources. Primary emphasis on financial decision making within organizations and techniques of financial analysis and forecasting. (FINA 5311 Financial Management at UT Arlington)

# MBAO 6331: Applied Business Research

The application of research techniques to business decision-making. Study of the scientific method: definition of survey, development of methodology, evaluation of alternatives, findings, summary, conclusions and recommendations. (MARK 5380 Applied Business Research at UT Tyler)

# MBAO 6332: Management Information Systems for Managers

This course will look at technology at a macro level. Each module examines the impact of today's information systems on organizations, education, government, culture, society, and the future. (CIS 5394 Information Systems for Managers at UT El Paso)

# MBAO 6333: Legal Environment in Business

The course will introduce the student to fundamental legal issues confronting managers in the contemporary American and global legal environment. (BLAW 6301 Legal Environment in Business at UT Brownsville)

# MBAO 6334: Production and Operations Management

The study of the role of the production function in the business system and its relationship to marketing and finance. The focus is on the decision making necessary for productivity improvement in the transformation process of manufacturing and non-manufacturing service organizations. Strategies of production system design, capacity management, quality management, production planning, inventory planning and control, facility location and supply chain management are explored. Systems studied include Just-in-Time, Total Quality Management and Flexible Manufacturing Systems. **Prerequisite**: MBAO 6314 Quantitative Analysis (MANA 6360 Production and Operations Management at UT Brownsville)

# MBAO 6335: Contemporary Topics in Financial Management

The study of topics recently published in financial management literature. The topics will be selected from international, corporate, and risk management topics and vary from term to term. (FINA 6328 Contemporary Topics in Financial Management at UT Permian Basin)

# MBAO 6336: Accounting for Decision Making

The study of accounting and its uses by management in the decision-making process. **Prerequisite**: MBAO 6311 Accounting Analysis (ACCT 6973 Accounting for Decision Making at UT San Antonio)

# MBAO 6371: Human Resource Management

Advanced study of selected topics in human resource management with special emphasis on issues of current importance in the field. Topic areas in such human resource functions as staffing, development, appraisal, and compensation will be covered. **Prerequisite**: any 18 graduate business credit hours. (MANA 5350 Strategic Human Resource Management at UT Tyler)

# MBAO 6372: Organizational Leadership and Change

This course is designed to provide a broad overview of Leadership and Organizational change theories, practices, and research. Special attention will be given to critical thinking skills and the students' ability to communicate and lead effectively in the discussion chat room format **Prerequisite**: any 18 graduate business credit hours. (MANA 6332 Organizational Leadership and Change at UT Pan American)

# MBAO 6373: International Management

Participants will be able to perform environmental scanning through the understanding of the elements of corporate, competitive and operational environments. Participants will be exposed to different tools for evaluation of opportunities and threats and for identifying sources of strategy. Students will have "hands-on" experience through a computer simulation. This simulation will provide participants the experience of working in teams. Teams will make competitive decisions about a global organization. **Prerequisite**: any 18 graduate business credit hours. (MGMT 5335 Global Strategic Management at UT El Paso)

# MBAO 6395: Strategic Management

The primary thrust of this course is general management. It will be different from most of the courses you have had in the functional areas (e.g. accounting, marketing) because you will be to use a wide range of business knowledge and exhibit diverse skills. Therefore, it will be demanding and challenging because you will have to perform in topic areas where you have both strengths and weaknesses. **Prerequisite:** any 36 graduate business credit hours. (BUSA 5333 Business Policy at UT Arlington)

# Technology (TECH)

# TECH 5301: History and Philosophy of HRD/Technology

A study of the social, political, industrial, and educational factors which have influenced technology. Emphasis is placed on readings and discussion for the purpose of developing a sound philosophy of technology.

# TECH 5303: Research Techniques in HRD/Technology

An orientation in types of research, literature, and proposal development. An advisor-approved project is required.

# TECH 5305: Seminar in Technology

A discussion and analysis of current trends and problems in technology. Up to six semester hours may be applied to a degree. No topics may be repeated.

# TECH 5306: Advanced Logistics Management

A study of industrial distribution with emphasis on logistics management of materials, communications and financial processes involved in getting a product from the point of manufacture to the point of use, including service after the sale.

# TECH 5309: Industrial Processes and Materials

Involves updating skills, knowledge, and experience in industrial processes and materials.

# TECH 5310: Six Sigma Quality

A discussion, analysis and application of quality control concepts to include both attribute and variable quality control techniques. Advanced graphical problem solving techniques in Six Sigma will be studied. Attribute analysis will be emphasized as it applies to MIL-STD-105D and variable analysis as it applies to MIL-STD-414. Effective utilization of microcomputers will be used to develop spreadsheets, graphs, charts, and run statistical quality control microcomputer programs.

# TECH 5312: Total Productive Maintenance

A study of philosophy and methods for improving equipment efficiency in industrial settings.

# TECH 5317: Computer Integrated Manufacturing

A study of the application of computer-aided-design, computer-aidedmanufacturing, computer numerical control, robotics, programmable electronic controllers, and communication networks to achieve automated manufacturing.

# TECH 5320: Total Quality Management

A study of the principles and practices of TQM to include leadership in quality, customer satisfaction, employee involvement, and continuous process improvement. Such TQM tools and techniques as quality function deployment and experimental design are studied.

# TECH 5325: Administration and Supervision of Human Resource Development

Study of the fundamentals, principles, and techniques of supervision and administration.

# TECH 5328: Topics in Technical Programs

Studies in technical programs. Up to nine semester hours may be applied to a degree. Topics may be repeated if content changes.

# TECH 5329: Trends in Industry

Study of new and developing industrial techniques.

# TECH 5330: Safety and Health Developments

An analysis of concerns in the work environment such as changes in laws, new research findings, and attitudes of management and labor toward safety and health.

# TECH 5331: Project Management

Planning and scheduling to interface human resources with modern industry.

# TECH 5335: Lean Manufacturing

Overview of how the lean production system can be implemented into an organization or company to improve profitability by reducing waste. Key concepts such as visual management, Five S, TPM, Kaizen, kanban, jidoka, hoshin planning, and PDCA will be covered.

# TECH 5341: Planning, Developing and Implementing Safety Programs

Explores the expertise needed to plan, develop and implement safety programs.

# TECH 5345: Professional Development

Provides an opportunity to investigate and discuss ways to upgrade knowledge and skills relating to professional responsibilities.

# TECH 5346: Environmental Management

Federal and state environmental regulations; techniques for environmental control; risk assessment and management strategies; characterization, measurement and control of air contaminants; hazardous materials characterization, spill control strategies, and cleanup techniques.

# TECH 5366: Value Stream Management

A study of how information and materials flow through a workplace through visual mapping techniques. Students will be required to develop value stream maps for manufacturing and healthcare organizations as well as developing plans to create a lean office environment.

# TECH 5370 and 5371: Internship in Technology

An 8-16 week program offering learning experiences in an off-campus industrial business or manufacturing environment. A minimum of 125 clock hours of learning experiences in the approved internship activity is required for 3 hours of credit. **CR/NC only. Prerequisite**: Consent of academic advisor required.

# TECH 5199 - 5699: Independent Study

Independent study in specific areas of technology not covered by organized graduate courses. A maximum of six hours for independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# GRADUATE COLLEGE OF EDUCATION AND PSYCHOLOGY

### Dr. William Geiger, Dean

# Mission

The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service.

# Goals

- Provide candidates with academic programs and study leading to advanced professional certifications in a range of educational fields.
- Provide candidates with academic programs and study leading to licensure and certifications in psychology and related fields.
- Prepare candidates with strong academic and professional graduate level foundations for further study at the doctoral level.
- Prepare graduates who have the ability to play significant roles in their chosen professional field.

# Graduate Programs

The College of Education and Psychology offers graduate course work leading to completion of Master of Arts, Master of Science, and Master of Education degrees. Program options available within each degree are as follows:

# Master of Arts

Counseling Psychology Early Childhood Reading School Counseling Special Education

# Master of Science

Clinical Psychology

# Master of Education

Curriculum and Instruction Early Childhood Education Educational Leadership Reading Special Education

# Post-Baccalaureate Initial Teacher Certification

Initial certification at the EC-6, 4-8, 8-12, and EC-12 levels. (See Initial Teacher Certification in this section of the catalog.)

# General Degree Requirements

Prospective graduate degree students in the College of Education and Psychology must meet specific admission requirements of the selected program. Students with inadequate undergraduate preparation in a chosen program may be required to complete deficiencies. The following are the general procedures for fulfilling degree requirements for Master of Arts, Master of Science, and Master of Education degrees. Specific academic requirements are described in program sections on subsequent pages of this catalog.

- A. Apply for admission to the program of choice at http://www.ApplyTexas.org. Requirements for program admission will be those in effect at the time the application is submitted.
- B. Gain admission to the selected degree program.

- C. File a degree plan during the first semester after admission to the degree program. Complete required semester credit hours of approved graduate work.
- D. Maintain a grade point average of at least 3.0 (on a 4.0 scale) in all courses applied toward the degree, and a grade point average of at least 3.0 in the academic major. No course with a grade below "C" may be applied toward fulfilling degree requirements.
- E. Complete requirements for comprehensive examinations. Applications for taking comprehensive examinations should be completed and returned to the College of Education and Psychology by October 1, February 1, or July 1 of the appropriate semester.
- F. Complete thesis requirements (if applicable) by following guidelines available in the Office of Graduate Studies.
- G. File for graduation prior to the published deadline by completing the procedures in "Filing for Graduation" in the Graduate Policies and Programs section of this catalog.

# School of Education

# Dr. Kathryn Morrison, Director

The School of Education offers the Master of Education in Curriculum and Instruction, the Master of Arts and the Master of Education in Early Childhood, the Master of Arts and the Master of Education in Reading, and the Master of Arts and the Master of Education in Special Education. These programs are designed to offer teachers an opportunity to become proficient in implementing the latest strategies for effective learning. Opportunities and instruction are provided at all levels as student needs dictate. The programs described here involve analysis of current research and practice.

# Master of Education in Curriculum and Instruction Total Semester Credit Hours = 30

# Admission Requirements

To be admitted to the Master of Education Degree in Curriculum and Instruction, the individual must:

- A. Hold a bachelor's degree from an accredited institution.
- B. Complete the Graduate Admissions Application.
- C. Submit official transcripts from the undergraduate institutions attended.
- D. If required, send official scores (obtained within the past five years) on the Graduate Record Examination (GRE) directly to the Office of Graduate Admissions.

Admission is determined based on:

- A. undergraduate GPA and, if necessary, satisfactory scores on the GRE in combination with the undergraduate GPA, and
- B. one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# GRADUATE COLLEGE OF EDUCATION AND PSYCHOLOGY

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Foundations Area:       9 hrs.         EDUC 5301:       Research Methods       3         EDUC 5352:       Curriculum Foundations (or equivalent)       3         EDUC 5302:       Research in Curriculum and Instruction       3         Major Area       9 hrs.         Curriculum and Instruction Area:       9 hrs.         Choose one from:       EDUC 5303: Applied Learning Theories one from:       3         EDUC 5370: Historical and Philos. Fndtns       3         EDUC 5308: Current Issues in Education       3         EDUC 5306: Topics in Education       3		
EDUC 5301: Research Methods       3         EDUC 5352: Curriculum Foundations (or equivalent)       3         EDUC 5302: Research in Curriculum and Instruction       3         Major Area       9 hrs.         Curriculum and Instruction Area:       9 hrs.         Choose one from:       EDUC 5303: Applied Learning Theories       3         EDUC 5308: Current Issues in Education       3		
EDUC 5352: Curriculum Foundations (or equivalent)       3         EDUC 5302: Research in Curriculum and Instruction       3         Major Area       9 hrs.         Curriculum and Instruction Area:       9 hrs.         Choose one from:       EDUC 5303: Applied Learning Theories       3         EDUC 5370: Historical and Philos. Fndtns       3         EDUC 5308: Current Issues in Education       3		
EDUC 5302: Research in Curriculum and Instruction       9 hrs.         Major Area       9 hrs.         Curriculum and Instruction Area:       9 hrs.         Choose one from:       EDUC 5303: Applied Learning Theories       3         EDUC 5370: Historical and Philos. Fndtns       3         EDUC 5308: Current Issues in Education       3		
Curriculum and Instruction Area:         Choose one from:       EDUC 5303: Applied Learning Theories       3         EDUC 5370: Historical and Philos. Fndtns       3         EDUC 5308: Current Issues in Education       3		
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EDUC 5370: Historical and Philos. Fndtns3EDUC 5308: Current Issues in Education3		
EDUC 5306: Topics in Education 3		
LD 00 5500. Topics in Education 5		
Human Diversity		
Choose ENGL 5383: Acquisition and Develop. ESL 3 one from:		
EDUC 5356: Educ. that is Multicultural 3		
EDSP 5350: Overview of Special Ed. 3		
Educational Technology		
Choose EDUC 5320: World Wide Web Apps. 3 one from:		
EDUC 5359: Educational Technology 3		
Specialization Area: 12 hrs.		

12 hrs. of specialization course work in STEM Education, Early Childhood Education, Special Education, ELL/Bilingual Education or in a single content area

# Masters in Early Childhood Education

This major is designed to provide an opportunity for training and experience in child development, curriculum design, and instructional resources relevant to early childhood programs with children ages birth through eight. Students in the program have opportunities to make practical application of content, to develop skills in identifying and prescribing for the needs of young children, and to develop leadership skills.

# Admission Requirements

To be admitted to the graduate program in early childhood education, the individual must:

- A. Hold a bachelor's degree from an accredited institution.
- B. Complete the Graduate Admissions Application form.
- C. Submit official transcripts from the undergraduate institutions attended.
- D. If required, send official scores (obtained within the past five years) on the Graduate Record Examination (GRE) directly to the Office of Graduate Admissions.

Admission is determined based on:

- A. undergraduate GPA and, if necessary, satisfactory scores on the GRE in combination with the undergraduate GPA, and
- B. one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

Master of Early Childhood Education Total Semester Credit Hours=36	
<b>Foundations Area:</b> EDUC 5301: Research Methods for the Behavioral Sciences Three additional hours of foundations coursework with advisor appro	6 hrs. oval
<b>Early Childhood Education Area:</b> EDEC 5340: Seminar in Early Childhood Education EDEC 5342: Development of the Young Child Nine additional hours in Early Childhood selected with advisor appr	15 hrs oval
Support Area: Nine semester hours must be completed outside the major area	9 hrs.
<b>Thesis:</b> EDEC 5395: Thesis EDEC 5396: Thesis	6 hrs.
Master of Arts in Early Childhood Total Semester Credit Hours=36	
<b>Foundations Area:</b> EDUC 5301: Research Methods for the Behavioral Sciences Three additional hours of foundations coursework with advisor appro	<b>6</b> oval
Early Childhood Education Area: EDEC 5340: Seminar in Early Childhood Education EDEC 5342: Development of the Young Child Nine additional hours in Early Childhood selected with advisor appr	<b>15</b> oval
Support Area: Nine semester hours must be completed outside the major area	9

Thesis: EDEC 5395: Thesis EDEC 5396: Thesis

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# Master of Education/Master of Arts in Reading Total Semester Credit Hours = 36

The School of Education offers the Master of Arts and Master of Education degrees in reading. The School also offers the Master Reading Teacher and the Reading Specialist Certification programs. The program addresses establishing, maintaining, and evaluating reading programs on a building level or system-wide basis.

# Certification

The Reading Specialist (EC-12) certificate is available at the graduate level. This certification program requires two years of classroom teaching experience, a master's degree, the completion of an appropriate course sequence, and the required TEXES examination. Applicants for the Standard Reading Specialist Certificate must meet the same requirements as those for graduate degree programs in reading.

The Master Reading Teacher Certificate also is available at the graduate level. This certification program requires three years of classroom teaching experience, a valid Texas teaching certificate, the completion of an appropriate course sequence, and the required TExMaT examination. Applicants for the Standard Master Reading Teacher Certificate must meet the same requirements as those for graduate degree programs in reading.

# Admission Requirements

To be admitted to the graduate program in reading education, the individual must:

- A. Hold a bachelor's degree from an accredited institution.
- B. Complete the Graduate Admissions Application form and submit it to the Office of Graduate Admissions.
- C. Submit official transcripts from the undergraduate institutions attended.

D. If required, send official scores (obtained within the past five years) on the Graduate Record Examination (GRE) directly to the Office of Graduate Admissions.

Admission is determined based on:

- A. undergraduate GPA and, if necessary, satisfactory scores on the GRE in combination with the undergraduate GPA, and
- B. one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

# Master of Arts in Reading

# Total Semester Credit Hours = 36

#### Foundations Area:

i oundations i nea.	
EDUC 5301: Research Methods for the Behavioral Sciences	
READ 5369: Reading Writing Workshop IElementary	
Reading Area:	21
READ 5360: Advanced Developmental Reading Seminar	
READ 5362: Reading Diagnosis	
READ 5363: Remedial and Corrective Reading, K-Adult	
READ 5364: Reading Research Seminar	
READ 5365: Literacy and Cognitive Coaching Practicum	
READ 5368: Organization and Supervision of Reading Programs	
READ 5388: Content Literacy in the Secondary School	
Constant Anna	2
Support Area:	3
READ 5367: Reading Writing Workshop IISecondary	
Thesis:	6
READ 5395: Thesis	
READ 5396: Thesis	
Master of Education in Reading	
Total Semester Credit Hours = 36	
Foundation Area:	6
	6
EDSP 5350: Overview of Special Education	
EDUC 5356: Education that is Multicultural	
Reading Area:	21
READ 5360: Advanced Developmental Reading Seminar	
READ 5362: Reading Diagnosis	
READ 5363: Remedial and Corrective Reading (K-Adult)	

READ 5364: Reading Research Seminar

READ 5365: Literacy and Cognitive Coaching Practicum

READ 5368: Organization and Supervision of Reading Programs

READ 5388: Content Literacy in the Secondary School

#### Support Area: Option 1: Electives

9

6

Nine hours of graduate level courses approved by the student's advisor Option 2: Reading Specialist Certification ENGL 5380: Advanced Grammar and Linguistic

READ 5369: Reading Writing Workshop I - Elementary

READ 5367: Reading Writing Workshop I - Demendary

# Master of Education in Special Education

# Special Education

The School of Education offers the Master of Arts and Master of Education degrees in special education. The School also offers special education and educational diagnostician certification programs. The Master of Arts degree program is structured primarily as a research-oriented degree with no teacher certification required. The Master of Education degree program is designed to fulfill academic requirements for certification as a special education teacher or as an educational diagnostician.

# Admission Requirements

- A. To be admitted to the graduate program in special education, the individual must:
- B. Hold a bachelor's degree from an accredited institution.
- C. Complete the Graduate Study Admissions Application form and submit it to the Office of Graduate Studies Admissions.
- D. Submit official transcripts from the undergraduate institutions attended.
- E. If required, send official scores (obtained within the past five years) on the Graduate Record Examination (GRE) directly to the Office of Graduate Admissions.

Admission is determined based on:

- A. undergraduate GPA and, if necessary, satisfactory scores on the GRE in combination with the undergraduate GPA, and
- B. one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities

# Certification

# Special Education Teacher

Emphasis in special education provides the student with the opportunity to deal with academic and behavioral needs of individuals with disabilities in a full continuum of educational settings. Field experiences are selected to be compatible with the student's particular interests and professional objectives. Certification can be earned by a person who holds a valid teaching certificate in certain fields, has completed 24 semester hours of prescribed course work and who receives a passing score on the appropriate TExES examination. The academic requirements for certification can be completed through a master's degree program.

In addition to Master of Education in Special Education degree requirements, students will be required to complete additional requirements for certification. Included in these requirements will be student teaching or an internship. All individuals seeking initial certification in Texas must pass the appropriate state administered certification test (the Texas Examinations of Educator Standards—the TEXES).

#### Educational Diagnostician

Emphasis in educational diagnosis provides the student with the opportunity to assess the competencies of individuals in language, sociological, physical, and behavioral/emotional areas, intellectual functioning and adaptive behavior, and educational performance using informal and formal measures, and prescribe individualized education plans based on test results. The educational diagnostician certificate requires two years of classroom teaching experience, an earned master's degree, and successful completion of the TExES examination for certification.

#### Master of Education in Special Education with Special Education Certification--Total Semester Credit Hours = 36

Foundation Area: EDUC 5301: Research Methods for the Behavioral Sciences EDUC 5356: Education that is Multicultural	6
Special Education Area: EDSP 5350: Overview of Special Education EDSP 5360: Seminar-Learning and Neurological Disabilities EDSP 5363: Behavioral Disorders EDSP 5364: Assessment and Evaluation in Special Education EDSP 5368: Educational Strategies in Special Education EDSP 5370: Learning Theory as Applied to Individuals with Disab Six semester hours selected from EDSP 5352, 5362, 5369, 5375 or advisor approval.	

#### Support Area:

Six semester hours selected from other graduate special education courses or outside the area of special education with advisor approval.

6

# Master of Education in Special Education with Educational Diagnostician Certification--Total Semester Credit Hours = 36

EDSP 5350: Overview of Special Education	3
EDSP 5352: Infants and Young Children	3
EDSP 5357: Practicum in Special Education	3
EDSP 5362: Adolescents and Adults with Disabilities	3
EDSP 5363: Behavioral Disorders	3
EDSP 5364:Seminar-Assessment and Evaluation	3
EDSP 5365: Developmental Testing	3
EDSP 5366: Seminar-Comprehensive Individual Assess.	3
EDSP 5368: Educational Strategies in Special Education	3
EDSP 5370: Learning Theory as Applied to Individuals	3
with Disabilities	
EDSP 5378: Admin. and Legal Issues in Special Education	3
PSYC 5366: Assessment of Individual Mental Ability I	3
Substitutions magging advison approval	

Substitutions require advisor approval.

\*EDUC 5356: Education that is Multicultural. This course is required for certification unless the student has completed its equivalent at the undergraduate level

# Post-Baccalaureate Initial Certification Programs

The School of Education offers post-baccalaureate programs that lead to initial teacher certification as well as supplements that may be added to a new or existing teacher certificate and Professional Certificates.

# Initial Certificates

Music

Initial teacher certification is available for candidates who have a minimum of an earned baccalaureate degree. The following certificates are available at UT Tyler through a post-baccalaureate/alternative route certification .

ce	ertification program.	
	Generalist EC-6	
	Generalist 4-8	
	English Language Arts and Reading/Social	Studies 4-8
	English Language Arts and Reading 4-8	
	Social Studies 4-8	
	Mathematics/Science 4-8	
	Mathematics 4-8	
	Science 4-8	
	8-12 Certificates in:	
	Chemistry	Life Science
	Computer Science	Mathematics
	English Language Arts and Reading	Social Studies
	History	Speech
	Journalism	
	EC-12 Certificates in:	
	Art	Spanish
	Health	Special Education

Physical Education Individuals desiring to teach in accredited schools in Texas must be certified through the Educator Certification and Standards Division of the Texas Education Agency (TEA).

Students who have an earned baccalaureate degree and seek teacher certification should contact the School of Education for advisement. For additional information, a list of Frequently Asked Questions (FAQ's) is available at http://www.uttyler.edu/epp/postbaccertrequirements.htm.

# General Admission Requirements for Post-baccalaureate Candidates for Certification:

- A minimum of a bachelor's degree from an accredited university or A. college;
- A cumulative grade point average of at least 2.5; Β.
- A deficiency plan. (See the School of Education); C.
- Admission to the School of Education (see this information in the D. undergraduate section of the College of Education and Psychology)

# Program Completion Requirements for Post-baccalaureate Candidates for Certification:

- 1. Complete all Professional education courses with a "C" or better;
- 2. Have a final GPA of at least 2.5 in all Professional education courses;
- 3. Have a final cumulative GPA of at least 2.5 for all courses on the deficiency plan;
- 4 Complete appropriate content course requirements with a "C" or better n each;
- 5. Complete student teaching or internship successfully;
- Complete required state certification examinations (TExES) 6. successfully;
- 7. Complete Cardiopulmonary Resuscitation (CPR) training;
- 8. Submit to a national criminal history background check.

NOTE: The Division of Certification and Standards of the Texas Education Agency (TEA) in conjunction with the State Board for Educator Certification (SBEC) regulates the certification of educators to teach public school children. Working with the Texas Department of Public Safety (DPS) and the FBI, the Division of Educator Certification and Standards conducts a state and national criminal history background check on all applicants for educator certification, ensuring each candidate's suitability to teach children. Each student applying for certification must be fingerprinted by an authorized agency. TEA will provide a fingerprint packet at the time of the candidate's application. Students pursuing educator preparation should know that conviction for a felony or misdemeanor may lead to denial of teacher certification.

# Grades EC-6 Generalist Certification

To complete the EC-6 teaching certificate, the candidate must have an earned bachelor's degree and complete course requirements and required TExES examinations. Individuals may follow the undergraduate professional education course of study or they may take graduate equivalents (see note below):

Professional Education course requirements for the EC-6 Generalist ertificate include

certificate inclu	ae:		
EDUC 3310	EDUC 3220	EDUC 4230	*EDST 4640 or EDIN 5380 and EDIN 5381
EPSY 3350	ELED 4312	ELED 4313	
EDEC 3305	EDEC 4385	ELED 4314	EDUC 4057
EDEC 3315	READ 4360	READ 4366	
READ 4350	READ 4364	EDFB 3348	
		EDSP 4269	

NOTE: In some instances, graduate courses may be substituted for undergraduate courses. If accepted to graduate studies, the candidate may apply these courses to a master's degree. The candidate who wishes to pursue a graduate degree should take no more than 9 hrs. graduate course work before being admitted to the graduate program. For admission to Graduate Studies, follow the requirements as listed earlier in this section of the catalog. (See postbaccalaureate advisor for details.)

\*Student Teaching: Requirements for admission to student teaching are provided in the School of Education section following the certification section of this catalog.

Professional education courses require related field experiences. These experiences occur in TEA-accredited schools. Individual instructors assign specific course requirements related to field experience. Refer to course descriptions in the university catalog. The School of Education in cooperation with participating school districts assigns students to school placements.

Additional requirements include: Speech proficiency

Computer proficiency

ENGL 3330 or 5381 Children's Literature

In order to be eligible for a recommendation for EC-6 teacher certification, candidates must pass required TEXES examinations in addition to successfully completing the course requirements and student teaching or internship, if applicable.

# Grade 4-8 Certification

To complete the 4-8 teaching certificate, the candidate must have an earned bachelor's degree and complete course requirements and required TExES examinations. Individuals may follow the undergraduate professional education course of study or they may take graduate equivalents (see note below):

Professional Education course requirements for the 4-8 certificate include:

EDUC 3310	EDFB 4315	EDFB 4338	*EDST 4640 or EDIN 5385 and EDIN 5386
EPSY 3340 READ 4364	EDSP 3351 READ 4337	EDUC 4312a,c EDUC 4315a,b EDUC 4313a,d EDUC 4314a,e	EDUC 4057

- Note: a = required for Generalist Certification b = required for English Language Arts and Reading Certification c = required for Social Studies Certification d = required for Mathematics Certification
  - e = required for Science Certification

NOTE: In some instances, graduate courses may be substituted for undergraduate courses. If accepted to graduate studies, the candidate may apply these courses to a master's degree. The candidate who wishes to pursue a graduate degree should take no more than 9 hrs. graduate course work before being admitted to the graduate program. For admission to Graduate Studies, follow the requirements as listed earlier in this section of the catalog. (See postbaccalaureate advisor for details.)

# \*Student Teaching: Requirements for admission to student teaching are provided in the School of Education section of this catalog.

Professional education courses require related field experiences. These experiences occur in TEA-accredited schools. Individual instructors assign specific course requirements related to field experience. Refer to course descriptions in the university catalog. The School of Education in cooperation with participating school districts assigns students to school placements.

#### Content course requirements:

For information regarding content requirements, contact the School of Education. Candidates may be directed to show proficiency in a content area by taking the designated TEXES during the first semester after their admission to the School of Education. If the designated TEXES is passed on the first attempt, the candidate will be considered 'complete' in the content requirements and will only be required to take the Professional Education requirements as shown on the deficiency plan.

If the candidate does not pass the designated TExES on the first attempt, the candidate will complete the content requirements as described by the School of Education.

In order to be eligible for a recommendation for 4-8 teacher certification, candidates must pass required TExES examinations in addition to successfully completing the course requirements and student teaching or internship, if applicable.

# Grades 8-12 Certification

To complete the 8-12 teaching certificate, the candidate must have an earned bachelor's degree and complete course requirements and required TExES examinations. Individuals may follow the undergraduate professional education course of study or they may take graduate equivalents (see note below):

#### Designated Teaching Fields:

Chemistry (8-12) Computer Science (8-12) English Language Arts and Reading (8-12) History (8-12) Journalism (8-12) Life Sciences (8-12) Mathematics (8-12) Social Studies (8-12) Speech (8-12)

# Candidates for 8-12 certification must complete the following professional education courses. (See the School of Education Advising Center for details)

#### 8-12 Professional Education Courses:

EDUC 1301: Introduction to the Teaching Profession EPSY 3340 : Educational Psychology EDUC 4320: Teaching Skills for the Intermediate and Secondary Teacher EDUC 2301: Introduction to Special Populations EDFB 4338 : Literacy in the Content Areas \*EDST 4640: Student Teaching EDUC 4057: Student Teaching Seminar EDUC 4312: Social Studies or EDUC 4313: Math or EDUC 4314: Science or EDUC 4315: Language Arts or Take the appropriate pedagogy course, if required.

NOTE: In some instances, graduate courses may be substituted for undergraduate courses. If accepted to graduate studies, the candidate may apply these courses to a master's degree. The candidate who wishes to pursue a graduate degree should take no more than 9 hrs. graduate course work before being admitted to the graduate program. For admission to Graduate Studies, follow the requirements as listed earlier in this section of the catalog. (See postbaccalaureate advisor for details.)

# \*Student Teaching: Requirements for admission to student teaching are provided in the School of Education section of this catalog.

Professional education courses require related field experiences. These experiences occur in TEA-accredited schools. Individual instructors assign specific course requirements related to field experience. Refer to course descriptions in the university catalog. The School of Education in cooperation with participating school districts assigns students to school placements.

#### Content course requirements:

For information regarding content requirements, contact the School of Education. Candidates may be directed to show proficiency in an 8-12 content area by taking the designated TEXES during the first semester after their admission to the School of Education. If the designated TEXES is passed on the first attempt, the candidate will be considered 'complete' in the content requirements and will only be required to take the Professional Education requirements as shown on the deficiency plan.

If the candidate does not pass the designated TExES on the first attempt, the candidate will complete the content requirements as described by the School of Education.

In order to be eligible for a recommendation for 8-12 teacher certification, candidates must pass required TExES examinations in addition to successfully completing the course requirements and student teaching or internship, if applicable.

# Grades EC-12 Certification

To complete the EC-12 teaching certificate, the candidate must have an earned bachelor's degree and complete course requirements and required TExES examinations. Individuals may follow the undergraduate professional education course of study, or they may take graduate equivalents (see note below):

#### Designated Teaching Fields:

Art (EC-12) Health (EC-12) Music (EC-12) Physical Education (EC-12) Spanish (EC-12) Special Education (EC-12) (For certification requirements, see Special Education in this section of the graduate catalog.) Candidates for EC-12 certification must complete the following professional education courses. (See the post-baccalaureate advisor.)

### EC-12 Professional Education Courses:

EDUC 3310: School in the Social Setting EDUC 3310: School in the Social Setting EDFB 4320: Teaching Skills EDSP 3351: Diverse Learners Take the appropriate pedagogy course, if required<sup>1</sup> EDFB 4338: Literacy in the Content Areas \*EDST 4640: Student Teaching or EDIN 5390/EDIN 5391: Internship EDUC 4057: Student Teaching Seminar

#### <sup>1</sup>(See post-baccalaureate advisor)

NOTE: In some instances, graduate courses may be substituted for undergraduate courses. If accepted to graduate studies, the candidate may apply these courses to a master's degree. The candidate who wishes to pursue a graduate degree should take no more than 9 hrs. graduate course work before being admitted to the graduate program. For admission to Graduate Studies, follow the requirements as listed earlier in this section of the catalog. (See postbaccalaureate advisor for details.)

# \*Student Teaching: Requirements for admission to student teaching are provided in the School of Education section of this catalog.

Professional education courses require related field experiences. These experiences occur in TEA-accredited schools. Individual instructors assign specific course requirements related to field experience. Refer to course descriptions in the university catalog. The School of Education in cooperation with participating school districts assigns students to school placements.

#### Content course requirements:

For information regarding content requirements, contact the School of Education. Candidates may be directed to show proficiency in an EC-12 content area by taking the designated TEXES during the first semester after their admission to the School of Education. If the designated TEXES is passed on the first attempt, the candidate will be considered 'complete' in the content requirements and will only be required to take the Professional Education requirements as shown on the deficiency plan.

If the candidate does not pass the designated TExES on the first attempt, the candidate will complete the content requirements as described by the School of Education.

In order to be eligible for a recommendation for EC-12 teacher certification, candidates must pass required TExES examinations in addition to successfully completing the course requirements and student teaching or internship, if applicable.

#### Admission to Student Teaching

An application for admission to student teaching must be submitted to the School of Education early in the semester preceding the one in which the student plans to enroll in student teaching. The application will be approved if the student has: completed the prerequisite courses for student teaching; the required grade point average in teaching specialization(s); a 2.5 grade point average in educator professional education courses; and a cumulative grade point average of at least 2.5 for all courses on the degree plan. Students holding a bachelor's degree and who have completed all required professional education coursework, except student teaching, may satisfy the student teaching requirement by participating in a full-time teaching internship of one school year.

# Other Certificates

EDUCATIONAL DIAGNOSTICIAN CERTIFICATE (EC-12): Certification as an educational diagnostician requires a master's degree, completion of the specified course sequence, two years of successful teaching experience, and passing scores on the Educational Diagnostician TEXES examination. Details are available in the Special Education section.

SPECIAL EDUCATION CERTIFICATE (EC-12): Certification as a special educator is available to those who hold a valid Texas teacher certificate, have successfully completed the specified course sequence, and have received passing scores on the Special Education TEXES examination.

Details are available in the Special Education section.

SCHOOL COUNSELOR CERTIFICATE (EC-12): Certification as a school counselor requires a master's degree, successful completion of the specified course sequence, two years of successful teaching experience, and passing scores on the School Counselor TExES examination. Details are available in the Psychology section.

PRINCIPAL CERTIFICATE (EC-12): Certification as a principal requires a master's degree, successful completion of the specified course sequence, two years of successful teaching experience, and passing scores on the Principal TExES examination. Details are available in the Educational Leadership and Policy Studies section.

SUPERINTENDENT CERTIFICATE (EC-12): Certification as a superintendent is available to persons who hold a master's degree, a valid Texas professional mid-management administrator or principal certificate, have successfully completed the appropriate course sequence, and have received passing scores on the Superintendent TEXES examination. Details are available in the Educational Leadership and Policy Studies section.

MASTER READING TEACHER CERTIFICATE (EC-12): Certification as a Master Reading Teacher is available to persons holding a valid Texas teacher certificate, successful completion of the specified course sequence, three years teaching experience, and passing scores on the Master Reading Teacher TExMaT examination.

READING SPECIALIST CERTIFICATE (EC-12): Certification as a Reading Specialist requires a master's degree, a valid Texas teacher certificate, successful completion of the appropriate course sequence, two years of successful teaching experience, and passing scores on the Reading Specialist TEXES examination. Details are available in the Reading section.

# Supplements

A Supplement attaches to the level of certificate being earned--EC-6, 4-8, 8-12, or EC-12.

To complete a teaching supplement to be added to a new or existing standard classroom teaching certificate, the undergraduate candidate must have an earned baccalaureate degree and complete all requirements for a standard classroom teaching certificate. These requirements are located in the appropriate academic department as well as above.

A supplement may be earned in the following areas: bilingual education, English as a Second Language, and special education.

**Bilingual Supplement:** completion of 12 hrs. of specific coursework. The bilingual certificate can be earned concurrently with an initial classroom teaching certificate or added to a valid Texas teacher certificate upon successful completion of the specified course sequence and passing scores on the state examinations.

ENGL 4377 or 5383 ENGL 4378 or 5384 EDBE 5338 EDBE 5376

A minimum grade point average of 2.0 in all courses leading to bilingual certification, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a minimum grade of "C" in all courses leading to the bilingual supplement.

Successful completion of the required TExES examination and Oral Language Proficiency examination is necessary for a recommendation for teacher certification.

**English as a Second Language Supplement (ESL):** completion of 12 hrs. of specific coursework. The ESL certificate can be earned concurrently with an initial classroom teaching certificate or be added to a valid Texas teacher certificate upon successful completion of the specified course sequence and a passing score on the state examination.

ENGL 3376 or 5380

# GRADUATE COLLEGE OF EDUCATION AND PSYCHOLOGY

ENGL 4377 or 5383 ENGL 4376 or 5382 ENGL 4378 or 5384

A minimum grade point average of 2.0 in all courses leading to English as a Second Language certification, including a 2.0 at UT Tyler is required. Prospective teachers must achieve a minimum grade of "C" in all courses leading to the ESL supplement.

Successful completion of the required TExES examination is necessary for a recommendation for teacher certification.

**Special Education Supplement:** completion of 18 hrs. of specific coursework. The special education supplement can be earned concurrently with an initial classroom teaching certificate or added to a valid Texas teacher certificate upon successful completion of the specified course sequence and a passing score on the state examination.

Contact the post-baccalaureate advisor in the School of Education for details.

A minimum grade point average of 2.5 in all courses leading to the special education supplement is required. Prospective teachers must achieve a minimum grade of "C" in all courses leading to the special education supplement.

Successful completion of the required TEXES examination is necessary for a recommendation for teacher certification.

# Department of Educational Leadership and Policy Studies

Dr. Ross Sherman, Chair

# **Mission Statement**

The Department of Educational Leadership and Policy Studies is composed of a professional, dedicated faculty committed to quality graduate education. To fulfill this commitment the faculty pursues knowledge through scholarship, research, and publication and shares their unique talents and expertise with university, community, and professional constituencies.

# Degrees and Certifications

The Department of Educational Leadership and Policy Studies offers the Master of Education Degree in Educational Leadership and Standard Principal and Superintendent certification programs. These programs provide students the opportunity to acquire the knowledge and appropriate practical experience for assuming a variety of roles in public or private school administration. The thirty semester hour Master of Education Degree in Educational Leadership is earned simultaneously with completing requirements for the Standard Principal Certificate.

Students who have earned the Standard Principal Certificate at The University of Texas at Tyler may continue into the Superintendent certification program. Students who earned a Standard Principal Certificate or other Mid-Management Administrator Certificate from another institution may apply for admission to the Superintendent certificate program.

Requirements for the Master of Education Degree must be completed within six years. No courses taken more than six years from the graduation date will count toward any degree or certification program. Upon successful completion of all course requirements, candidates for the Master of Education degree in Educational Leadership must successfully complete a comprehensive examination.

# Master of Education with Principal Certification

# Admission Requirements

To be admitted to the Master of Education Degree in Educational Leadership and Standard Principal certification program, a prospective student must:

A. Hold a bachelor's degree from an accredited institution;

- B. Submit official transcripts from the undergraduate institutions attended to Graduate Admissions;
- C. Complete the application for admission to a graduate program online at http://www.applytexas.org;
- D. Send official scores on the Graduate Record Examination (GRE) directly to Graduate Admissions;
- E. Submit three letters of recommendation to the Department of Educational Leadership and Policy Studies from practicing school district administrators or other professional colleagues addressing the applicant's administrative potential.

Admission to the program is based in part on:

- A. documenting satisfactory scores on the Verbal and Quantitative parts of the GRE in combination with the undergraduate GPA, and
- B. demonstrating one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

6

# Master of Education

Total Semester Credit Hours = 30

#### Block I

EDLR 5310: Educational Leadership Theory and Practice EDLR 5313: Critical Issues in Educ. Leadership

(Block I courses must be taken concurrently)

Block II	8
EDLR 5311: Developmental Supervision	
EDLR 5349: Leadership in the Restructured School	
EDLR 5270: Internship in the Principalship I	
(Block II courses must be taken concurrently)	
Block III	8
EDLR 5320: Public School Law	
EDLR 5333: Administration of Special Programs	
EDLR 5271: Internship in the Principalship II	
(Block III courses must be taken concurrently)	
Block IV	8
EDLR 5330: The Principalship	
EDLR 5337: School Building Operations	
EDLR 5272: Internship in the Principalship III	
(Block IV courses must be taken concurrently)	

# **Educational Leadership Certificates**

# Standard Principal Certification

The Standard Principal Certificate requires: a) completing a master's degree; b) the required coursework for the certification within six years; c) providing evidence of a valid Texas Teaching Certificate; d) providing evidence of a minimum of two successful years of teaching experience; and e) satisfactory performance on the appropriate TEXES examination. A state induction period must be completed to receive the Principal Certificate.

#### Admission Requirements

To be admitted to the Standard Principal certification program, a prospective student must:

- A. Hold a master's degree from an accredited institution.
- B. Submit official transcripts from the undergraduate and graduate institutions attended to the Office of Graduate Admissions.
- C. Complete the application for admission to a graduate program (http://www.applytexas.org)
- D. Send official scores on the Graduate Record Examination directly to the Office of Graduate Admissions.

Admission to the program is based in part on:

- A. documenting satisfactory scores on the Verbal and Quantitative parts of the GRE in combination with the undergraduate GPA, and
- B. demonstrating one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

### Standard Principal Certificate--Total Semester Credit Hours=22

Block I	6
EDLR 5310: Educational Leadership Theory and Practice	
EDLR 5313: Critical Issues in Educ. Leadership	
(Block I courses must be taken concurrently)	
Block III	8
EDLR 5320: Public School Law	
EDLR 5333: Administration of Special Programs	
EDLR 5271: Internship in the Principalship II	
(Block III courses must be taken concurrently)	
Block IV	
EDLR 5330: The Principalship	
EDLR 5337: School Building Operations	
EDLR 5272: Internship in the Principalship III	
(Block IV courses must be taken concurrently)	

# Superintendent Certificate

The Superintendent Certificate is a 15-semester-hour program that requires a) holding a Standard Principal, Mid-Management, or other Texas Administrator Certificate; b) completion of the specified course sequence within six years; and c) satisfactory performance on the appropriate TExES exam.

# Admission Requirements

To be admitted to the Superintendent Certificate Program, a prospective student must:

- A. Hold a master's degree from an accredited institution.
- B. Submit official transcripts from the institution that awarded the master's degree.
- C. Complete the application for admission to a graduate program at http://www.applyTexas.org.
- D. Provide evidence of holding a Standard Principal, Mid-management, or other Texas Administrator Certificate.
- E. Admission to the program is based in part on one or more of the following: a) the applicant's demonstrated commitment to his or her chosen field of study, b) socioeconomic background, c) first generation college graduate, d) multilingual proficiency, e) geographic region of residence, and f) level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

Superintendent Certificate--Total Semester Credit Hours=15

Concentration Area:	12
EDLR 5350: Personnel Administration	
EDLR 5353: Public School Finance	
EDLR 5358: School Facilities	
EDLR 5360: The Superintendency	
Internship:	3
EDLR 5375: Internship in the Superintendency	

EDLR 5375: Internship in the Superintendency

# Department of Psychology and Counseling

Dr. Charles R. Barké, Chair

The Department of Psychology and Counseling offers three graduate degrees: (1) The Master of Science (M.S.) in Clinical Psychology, with optional specializations in school psychology or neuropsychology; (2) The Master of Arts (M.A.) in Counseling Psychology, with an optional specialization in marriage, couples and family counseling; and (3) The Master of Arts (M.A.) in School Counseling.

# Admission

In addition to the Graduate Admission Requirements listed in the Graduate Section of this catalog, to be considered for admission to graduate study in a Psychology and Counseling program, applicants must submit:

- A. Graduate Record Examination (GRE) scores 5 years of age or less on the General Test (verbal reasoning, analytical, and quantitative reasoning);
- B. Complete transcripts of all prior undergraduate and graduate coursework;
- C. Three letters of recommendation, preferably from persons who have directly observed the applicant's academic and/or career performance; and
- D. An Application for Graduate Studies (university) and a Psychology Information Sheet (departmental).

An official transcript and Application for Graduate Admissions should be sent to the Office of Graduate Admissions. All other materials, including a second transcript (official or student copy), should be sent to the Senior Graduate Advisor, Department of Psychology and Counseling, UT Tyler.

Applications are reviewed on an individual basis. Admission is competitive and based on multiple criteria including letters of reference, work experience, GRE scores, undergraduate grade point average (GPA), and GPA in the last sixty hours of undergraduate work. Successful applicants usually have a GPA of 3.0 or better (on a four point scale) and a satisfactory score on the GRE. Students who have not participated in traditional educational experiences may find that their performance on standardized tests does not adequately reflect their ability for graduate study. Applicants who believe their grade point average or their scores are not valid indicators of their ability should explain their concerns in a letter to the psychology graduate advisor. The department may elect to require additional assessments, including interviews, of individual applicants. Consideration for admission is also given to one or more of the following: the applicant's demonstrated commitment of his or her chosen field of study, socioeconomic background, multilingual proficiency, geographic region of residence, first generation of family to graduate from an undergraduate program, and involvement and level of responsibility in other matters including extracurricular activities, employment, community service, or family responsibility of raising children.

# **Comprehensive Examinations**

Students will complete an oral comprehensive examination.

The objective of the oral comprehensive examination is to determine the degree candidate's diagnostic and therapeutic skills, clinical insight, understanding of ethical and professional practices and standards, and to ascertain the candidate's general readiness to enter clinical practice. The examination may be scheduled only during the student's last semester of enrollment. During the oral examination the examination committee may elect to question the student's understanding of any part of his or her curriculum of study.

The student must pass the comprehensive examination. If the student does not pass, then he or she will have a second opportunity to take the examination after completing any remedial preparatory work required by the exam committee. Failure to pass the comprehensive examination a second time may result in termination of the student from the master's program or extensive remedial work.

# Psychology and Counseling Retention Policy Comprehensive Evaluation and Retention Policy

Faculty, training staff, supervisors, and administrators of the Psychology and Counseling graduate programs at the University of Texas at Tyler have a professional, ethical, and potentially legal obligation to: (a) establish criteria and methods through which aspects of competence other than, and in addition to, a student-trainee's knowledge or skills may be assessed (including, but not limited to, emotional stability and well being, interpersonal skills, professional development, and personal fitness for practice); and, (b) ensure, insofar as possible, that the student-trainees who complete our programs are competent to manage future relationships (e.g., client, collegial, professional, public, scholarly, supervisory, teaching) in an effective and appropriate manner. Because of this commitment, and within the parameters of our administrative authority, our faculty, training staff, supervisors, and administrators strive not to advance, recommend, or graduate students or trainees with demonstrable problems (e.g., cognitive, emotional, psychological, interpersonal, technical, and ethical) that may interfere with professional competence to other programs, the profession, employers, or the public at large.

As such, within a developmental framework, and with due regard for the inherent power difference between students and faculty, students and trainees should know that the faculty, training staff, and supervisors of our programs will evaluate their competence in areas other than, and in addition to, coursework, seminars, scholarship, comprehensive examinations, or related program requirements. These evaluative areas include, but are not limited to, demonstration of sufficient: (a) interpersonal and professional competence (e.g., the ways in which student trainees relate to clients, peers, faculty, allied professionals, the public, and individuals from diverse backgrounds or histories); (b) self-awareness, self-reflection, and selfevaluation (e.g., knowledge of the content and potential impact of one's own beliefs and values on clients, peers, faculty, allied professionals, the public, and individuals from diverse backgrounds or histories); (c) openness to processes of supervision (e.g., the ability and willingness to explore issues that either interfere with the appropriate provision of care or impede professional development or functioning); and (d) resolution of issues or problems that interfere with professional development or functioning in a satisfactory manner (e.g., by responding constructively to feedback from supervisors or program faculty; by the successful completion of remediation plans; by participating in personal counseling/therapy in order to resolve issues or problems). [Adapted from the Comprehensive Evaluation of Student-Trainee Competence in Professional Psychology Programs statement developed by the Student Competence Task Force of the Council of Chairs of Training Councils (CCTC), (http://www.apa.org/ed/graduate/cctc.html), approved March 25, 2004.]

#### **Evaluating Student Fitness and Performance**

Members of the faculty, using professional judgment, continuously evaluate each student's fitness and performance. Students receive information related to their fitness and performance from faculty members, their advisors, and their supervisors. The criteria used by the faculty to make such judgments include instructor's observations of course performance, evaluations of students' performances in simulated practice situations, supervisors' evaluations of students' performances in practice situations, and the disciplines' codes of ethics. Students are formally evaluated at least annually by the program faculty. Detailed information about procedures for student evaluations, progress review, retention, and for addressing concerns about student progress are available at the department website: http://www.uttyler.edu/psychology/ http://www.uttyler.edu/psychology/.

Students who are not making satisfactory progress or who are not meeting program standards should consider withdrawing from the program. In this context, the term "unsatisfactory progress in the program" refers to an academic judgment made regarding the student's fitness and performance. It is a determination that the student has failed to meet academic and/or professional standards.

### Minimum grade requirements

In addition to the Graduate College policies on GPA requirements, probation and suspension, the Department has additional criteria for satisfactory progress and graduation, as follows. Regardless of GPA, no more than two (2) graduate courses with grades of "C" may be counted toward the graduate degree in Clinical Psychology, Counseling Psychology or School Counseling. No courses with a grade lower than a C may be counted toward the graduate degree in Clinical Psychology, Counseling Psychology or School Counseling. After receiving a third "C" grade, or a single "D" or "F" grade, a student will be placed on Probation. To be reinstated from probation, the student must retake one of the courses in which a "C" or lower was earned (under the University grade replacement policy) in the next semester, and achieve a "B" or better grade. Students on academic probation may not enroll in or begin their practicum course(s) until the probation has been removed. After an unsuccessful attempt to replace a grade, the student will be suspended for a minimum of one semester. A petition for reinstatement must then be submitted, and approved by the advisor, Department Chair and College Dean for a student to be reinstated. If reinstated, the student must first enroll only in courses in which "C" grades were earned, and successfully replace them, leaving no more than two "C's", and no grade lower than a "C". If a student fails to be reinstated from suspension, the student will be dismissed from the program.

# Dismissal from Program

The department may dismiss students from their degree programs for failure to make satisfactory progress toward degree completion. Students may also be dismissed for violations of the ethical and professional standards of the American Psychological Association or the American School Counselors Association.

# Master of Science in Clinical Psychology

The clinical psychology program provides the opportunity for the student to understand, evaluate, and counsel persons with psychological problems, and to draw upon community resources for assistance in working with these persons. During completion of the M.S. degree and approved internship, the student is provided the opportunity to administer psychological tests and use various techniques of counseling and psychotherapy, behavior therapy and biofeedback. Students who complete all requirements in the clinical area, and who become licensed, often work in psychiatric hospitals, in mental health centers, or with doctorate-level psychologists in private practice.

Students may complete a general program of study in clinical psychology or may choose one of two specializations. A specialization in neuropsychology is available for graduate students completing a clinical psychology emphasis. The clinical neuropsychology specialization is also available for students with a master's or doctoral degree who desire training in neuropsychology. The sequence of courses includes brain functioning and neuroanatomy, psychopharmacology, organic mental diseases, diagnosis and neuropsychological assessment. Upon completion of the 15 hour sequence, a certificate will be awarded.

The school psychology specialization provides the opportunity for the student to evaluate, counsel, prescribe and implement remedial procedures for students with behavioral, intellectual, and emotional problems. Because of the broad scope of this program, graduates may not be limited to employment in school settings. Many community mental health centers and other service centers employ graduates with school psychology training.

Students seeking admission to the clinical psychology degree programs should consult the psychology graduate advisor or should have completed the following undergraduate prerequisites: Introductory Psychology, Psychological Statistics and Laboratory, Experimental Psychology and Laboratory, Learning and Conditioning, Tests and Measurement, Physiological Psychology, and Abnormal Psychology. Additionally, students seeking the specialization Certificate in Clinical Neuropsychology, should complete Psychopharmacology.

The Master of Science in Clinical Psychology degree programs requires 60 credit hours of course work. The specialization in School Psychology in the Master of Science in Clinical Psychology degree program requires 66 credit hours of course work.

# Certification and Licensure

The M.S. in Clinical Psychology can qualify students to take the licensing exam for certification as a Licensed Psychological Associate (L.P.A.) from the Texas State Board of Examiners of Psychologists. However, following consultation with the Senior Graduate Advisor in Psychology, substitutions in course work or modest additions of course work may qualify graduates also for the licensing exam to become a Professional Counselor (L.P.C.) through the Texas State Board of Examiners of Professional Counselors. For example, many M.S. alumni have the L.P.A. and the L.P.C. The L.P.C. requires 3000 hours of supervised practice after the completion of the master's degree.

Students who complete the School Psychology Specialization can qualify as a Licensed Specialist in School Psychology (L.S.S.P.) from the Texas State Board of Examiners of Psychologists, after passing the licensing exam. The L.S.S.P. requires a 1200-hour supervised internship in an educational setting.

# Master of Science in Clinical Psychology Requirements

Total Semester Credit Hours = 60-66

A. All clinical psychology students are required to complete a foundation of 39 credit hours (30 credit hours for School Psychology majors) as follows:

Ionows:	
Foundation Courses	30-39
PSYC 5308: Advanced Psychopathology	3
PSYC 5312: Counseling Theories	3
PSYC 5328: Issues & Professional Ethics	3
PSYC 5340: Advanced Psych. Statistics and Design	3
PSYC 5354: Psychopharmacology**	3
PSYC 5361: Behavior Modification	3
PSYC 5366: Assessment of Individual Mental Ability I	3
PSYC 5368: Assessment of Personality	3
PSYC 5392: Applied Counseling Practice	3
PSYC 5393: Applied Therapy*	3
PSYC 5396: Supervised Practicum in Psychology	3
PSYC 5397: Supervised Practicum in Psychology*	3
PSYC 5398: Research Seminar*	3

\*Waived for students in School Psychology Specialization.

\*\*Students in School Psychology Specialization may substitute PSYC 5350 Clinical Neuropsychology.

- B. Students who wish to complete the general program of study in clinical psychology may choose their remaining hours from the graduate psychology and counseling courses listed in the course description section. They should consult their faculty advisor and specify the courses in their degree plans.
- C. Students who choose to complete a specialization must include the following courses, as appropriate, among their remaining hours.
   1. Neuropsychology Specialization 21

1. Iteuropsychology opecialization	21
PSYC 5350: Clinical Neuropsychology	3 3
PSYC 5352: Behavioral Neuroscience	3
PSYC 5356: Neuropsychological Assessment of Memory	3
PSYC 5358: Neuropsychological Assessment: Halstead-Reitan	3
PSYC 5359: Flexible Neuropsychological Battery	3
6 elective hours with advisor approval	6
2. School Psychology Specialization	36
PSYC 5320: Adv. Study of Human Growth and Dev.	3
PSYC 5325: School Psychology	3
PSYC 5326: Psychological Consultation	3 3 3
PSYC 5330: Counseling Children and Adolescents	3
PSYC 5345: Group Processes	3
PSYC 5369: Psych.Assessment of Children and Adolescents	3
PSYC 5388: Supervised Internship in School Psych.	3
PSYC 5389: Supervised Internship in School Psych.	3
COUN 5324: Cultural Diversity of Clients	3
EDLR 5333: Admin.of Special Programs in Schools	3
or EDSP 5350: Overview of Special Education	3
EDSP 5368: Educational Strategies for Special Educ.	3
or EDUC 5328: Instructional Leadership Training	3
or EDUC 5352: Curriculum Foundations	3
EDUC 5303: Applied Learning Theories	3
	<ul> <li>PSYC 5350: Clinical Neuropsychology</li> <li>PSYC 5352: Behavioral Neuropsychological Assessment of Memory</li> <li>PSYC 5356: Neuropsychological Assessment of Memory</li> <li>PSYC 5358: Neuropsychological Assessment: Halstead-Reitan</li> <li>PSYC 5359: Flexible Neuropsychological Battery</li> <li>6 elective hours with advisor approval</li> <li><b>2. School Psychology Specialization</b></li> <li>PSYC 5320: Adv. Study of Human Growth and Dev.</li> <li>PSYC 5320: Adv. Study of Human Growth and Dev.</li> <li>PSYC 5320: Adv. Study of Human Growth and Dev.</li> <li>PSYC 5326: Psychological Consultation</li> <li>PSYC 5330: Counseling Children and Adolescents</li> <li>PSYC 5369: Psych.Assessment of Children and Adolescents</li> <li>PSYC 5388: Supervised Internship in School Psych.</li> <li>PSYC 5389: Supervised Internship in School Psych.</li> <li>COUN 5324: Cultural Diversity of Clients</li> <li>EDLR 5333: Admin.of Special Programs in Schools</li> <li>or EDSP 5368: Educational Strategies for Special Educ.</li> <li>or EDUC 5328: Instructional Leadership Training</li> <li>or EDUC 5329: Curriculum Foundations</li> </ul>

Substitutions to meet individual needs and interests are possible with prior advisor approval.

# Sequence of Classes

The courses which should be taken first are comprised of basic general, clinical and counseling courses that provide, in conjunction with the undergraduate prerequisite courses, the basis and foundation for the later applied courses. These courses for clinical and school psychology students include PSYC 5312 Counseling Theories, PSYC 5308 Advanced Psychopathology, PSYC 5328 Issues and Professional Ethics, PSYC 5340 Advanced Psychological Statistics and Design, and PSYC 5361 Behavior Modification. Depending on their degree plan, students may take PSYC 5320 Advanced Study in Human Growth and Development, PSYC 5354 Group Processes, PSYC 5350 Clinical Neuropsychology, PSYC 5354 Psychopharmacology, PSYC 5366 Assessment of Mental Ability I, or other course is often helpful to make sure that students have had appropriate prerequisites.

The applied courses are more specialized clinical applications and should be taken after the basic courses are taken. A degree plan with the specific courses must be completed with their advisor early in their program. Students in clinical and school psychology must enroll in PSYC 5392 Applied Counseling Practice and PSYC 5393 Applied Therapy prior to enrollment in PSYC 5396/97 Supervised Practicum.

# Master of Arts in Counseling Psychology

The M.A. in Counseling Psychology is intended to prepare students to counsel persons experiencing distress, rather than severe psychological disturbances. Students receive instruction in group processes, human development, and guidance counseling, in addition to instruction in assessment and counseling techniques. Students who complete their degrees and meet state certification or licensing requirements may be employed in settings similar to those employing clinical psychology graduates and other mental health professionals.

Students may specialize in couple and family counseling. These students are instructed in systems theory and in assessment and counseling techniques that pertain to couples, divorce and family problems, including child sexual abuse and family violence.

Students seeking admission to the counseling psychology degree program should consult the psychology graduate advisor or should have completed the following undergraduate prerequisites: Introductory Psychology, Psychological Statistics and Laboratory, Experimental Psychology and Laboratory, Learning and Conditioning, Tests and Measurement, and Abnormal Psychology.

The Master of Arts in Counseling Psychology degree programs requires 60 credit hours of course work.

# Certification and Licensure

Graduates of the M.A. in Counseling Psychology are eligible to apply for licensure as a Licensed Professional Counselor (LPC) through the Texas State Board of Examiners of Professional Counselors. In addition to the degree, the LPC requires successful passage of the National Counselor Examination (NCE), followed by 3000 hours of supervised practice in a counseling role.

# Master of Arts in Counseling Psychology Requirements

Total Semester Credit Hours = 60

A. All counseling psychology students are required to complete a	
foundation of 45 hours as follows:	
PSYC 5308: Advanced Psychopathology	3
PSYC 5312: Counseling Theories	3
PSYC 5320: Advanced Study in Human Growth and	3
Development	
COUN 5324: Cultural Diversity of Clients	3
PSYC 5328: Issues & Professional Ethics	3
PSYC 5330: Counseling Children and Adolescents	3
COUN 5335: Career Counseling and Assessment	3
PSYC 5340: Advanced Psychological Statistics and Design	3

	PSYC 5345: Group Processes	3	
	PSYC 5361: Behavior Modification	3	
	PSYC 5368: Assessment of Personality	3	
	PSYC 5392: Applied Counseling Practice	3	
	PSYC 5393: Applied Therapy	3	
	PSYC 5396: Supervised Practicum in Psychology	3	
	PSYC 5398: Research Seminar	3	
3.	Students who wish to complete the general program of study in		

B. Students who wish to complete the general program of study in counseling psychology may choose their remaining 15 hours from the graduate counseling and psychology courses.

C. Students who choose the Couple and Family Specialization must	st
include the following courses among their remaining 15 hours.	
COUN 5313: Family Counseling	3
COUN 5315: Couples Counseling	3
COUN 5318: Sexuality and Sex Therapy	3
COUN 5321: Dynamics and Treatment of Family Violence	3
3 elective hours with advisor approval	3

# Sequence of Classes

The courses which should be taken first are comprised of basic general counseling courses that provide, in conjunction with the undergraduate prerequisite courses, the basis and foundation for the later applied courses. These courses for counseling psychology students include PSYC 5312 Counseling Theories, PSYC 5308 Advanced Psychopathology, PSYC 5328 Issues and Professional Ethics, PSYC 5340 Advanced Psychological Statistics and Design, and PSYC 5361 Behavior Modification, PSYC 5320 Advanced Study in Human Growth and Development, PSYC 5345 Group Processes, or other courses approved by their advisor. Consultation with the instructor of the course is often helpful to make sure that students have had appropriate prerequisites.

The applied courses are more specialized clinical applications and should be taken after the basic courses are taken. A degree plan with the specific courses must be completed with their advisor early in their program. Students in counseling psychology must enroll in PSYC 5392 Applied Counseling Practice and PSYC 5393 Applied Therapy prior to enrollment in PSYC 5396 Supervised Practicum.

# Master of Arts in School Counseling

The M.A. in School Counseling is intended for teachers who wish to become counselors in educational settings. This degree program does not prepare its graduates to counsel in social service or mental health agencies or in private practice. Students in the M.A. in School Counseling program receive instruction in developing appropriate comprehensive guidance plans to promote the educational, personal, social and career development appropriate to elementary and secondary students. They are instructed in assessment and counseling techniques, including legal and ethical standards, practices and issues. Students complete their practicum in a public or private school. Certification as a School Counselor in Texas requires successful completion of the required course sequence, the appropriate state certification exam (TExES), and two years of classroom teaching experience in a TEA-accredited school.

Students seeking admission to the School Counseling degree program should consult the school counseling graduate advisor or should have completed the following prerequisites: PSYC 4311: Abnormal Psychology, or equivalent. Applicants must have a current teaching certificate.

# Certification and Licensure

The M.A. in School Counseling can qualify students to meet the course requirements to become School Counselors certified by the Texas State Board for Educator Certification. The School Counseling program is intended to prepare students to pass the State certification exam for School Counselor. Students who also wish to receive the L.P.C. must complete additional coursework including an additional 100-hour supervised practicum in a clinical setting, and must pass the appropriate oral examination. Applicants must have two years of teaching experience to qualify for the School Counselor Certificate. Students matriculating in master's programs other than the M.A. in School Counseling program or students who already have master's degrees should contact the Graduate Advisor in School Counseling regarding the School Counselor Certificate. Students seeking only the School Counselor Certificate must meet the admission and other requirements for the M.A. in School Counseling degree programs.

# Master of Arts in School Counseling Requirements Total Semester Credit Hours = 42

COUN 5334: Foundations of School Counseling	3
COUN 5335: Career Counseling and Assessment	3
PSYC 5320: Advanced Study: Human Growth and Dev.	3
EDUC 5301: Research Methods for the Behavioral Sciences	3
PSYC 5312: Counseling Theories	3
PSYC 5330: Counseling Children and Adolescents	3
PSYC 5345: Group Processes	3
PSYC 5301: Tests and Measurements	3
PSYC 5361: Behavior Modification	3
COUN 5313: Family Therapy	3
COUN 5324: Cultural Diversity of Clients	3
COUN 5344: Advanced Principles of School Counseling	3
COUN 5386: Practicum in School Counseling	3
COUN 5314: Supervised Internship in School Counseling	3
Total	42

Required total for degree and certification is a minimum of 42 graduate semester hours. Substitutions to meet individual needs and interests are possible with prior advisor approval. Specifics of this program are subject to change by the SBEC or the degree-granting institution. New and currently enrolled students may be required to meet additional or different requirements.

# Master of Arts and Master of Science in Interdisciplinary Studies

Psychology may be chosen as one of the three required disciplines for the Master of Arts and Master of Science degrees in Interdisciplinary Studies. The Interdisciplinary Studies degree program is described in the graduate section of this catalog. The Psychology Department participates in interdisciplinary studies only to provide limited preparation in general psychology. Students majoring in psychology in interdisciplinary studies are not prepared to pursue certification or licensing in clinical psychology or professional counseling.

Students majoring in psychology in interdisciplinary studies are required to make a satisfactory score on the psychology subject test of the Graduate Record Examination (GRE) prior to the semester in which they take their comprehensive examinations.

# EDUCATION AND PSYCHOLOGY GRADUATE COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

## **Bilingual Education (EDBE)**

### EDBE 5338: Science, Math, and Social Studies in Bilingual Education

Study of methods and materials appropriate for teaching content areas in the language of the target population. Content includes development of vocabulary for instruction in Spanish, construction of lesson plans in the target language and implementation of appropriate strategies in field activities.

### EDBE 5376: Reading and Language Arts in Bilingual Education

Study of practical and theoretical approaches to providing effective reading and language arts programs to limited English proficient students, including dual language instruction.

### Counseling (COUN)

### COUN 5313: Family Therapy

Instruction in theoretical approaches and interventions in family therapy, grounded in human systems. Includes the process of conducting family therapy and special aspects of family therapy. **Prerequisite:** PSYC 5312 & CI.

### COUN 5314: Applied School Counseling

Counseling skills development through interactive classroom instruction, group/individual supervision of role-play, taped counseling sessions, on-site observation/consultation. Includes on-site school experience. **Prerequisite:** 24 required credits, CI.

### COUN 5315: Marriage Therapy

Different approaches to marital therapy. Examines common areas and patterns of marital dysfunction. Includes techniques for intervention. **Prerequisite:** Consent of instructor.

### COUN 5318: Sexuality and Sex Therapy

Examines normal functioning and the major problems of sexual dysfunction and psychological treatments from system and behavioral perspectives. **Prerequisite:** Consent of instructor.

### COUN 5319: Rehabilitation of the Substance Abuser

Examines the conceptualizations of both the causes and the treatment of drug abuse. Includes information regarding drug classification, the addictive process and the rationale for various types of rehabilitation programs. Special emphasis on the dynamics of the addict and their family and how these dynamics affect rehabilitation of the drug abuser.

### COUN 5321: Dynamics and Treatment of Family Violence

A survey of the symptoms and issues associated with family violence and provision of treatment techniques for the perpetrators and victims of such violence. **Prerequisites:** PSYC 5312 and 5345.

### COUN 5324: Cultural Diversity of Clients

Examines client diversity with respect to ethnographic, demographic, and status variables, and challenges culturally biased assumptions which influence the provision of mental health services.

### COUN 5334: School Guidance and Counseling

A foundation course for those planning to enter school counseling, this course covers organization, planning, management, and evaluation of comprehensive school guidance programs; appropriate roles and functions of school counselors at various school levels; coordination of professional services, as well as strategies for appropriate interventions for various student issues; consulting and collaboration with school and agency professionals; and professional concerns such as ethics and legal issues. Recommended for non-counselor educational professionals as well as counselors.

### COUN 5335: Career Counseling and Assessment

Interrelationships among lifestyle, workplace, and career planning are explored. Overview of principles and practices of guidance and counseling in schools as they relate to the curriculum, guidance services and the counseling process is taught. Techniques for assessment of career aptitudes, interests, values and personality provide an opportunity for in-depth self study. Attention is given to career theories and techniques for facilitating career development. **Recommended:** PSYC 5312.

### COUN 5344: Advanced Principles of School Counseling

Designed to prepare school counselors for effective program development, delivery and evaluation based on the national SACA/CACREP models. Topics: guidance curriculum, career programs, consultation, student services/advocacy, crisis planning, ethics, program evaluation. **Prerequisite:** COUN 5334

### COUN 5380: Seminar in Counseling

Courses with a variety of topics areas; each course to address content areas of current issues and needs important to the dynamic concerns of counselors. May be repeated for additional credit. **Prerequisite:** Consent of instructor.

### COUN 5386: Practicum in School Counseling

A minimum of 200 hours of supervised experience in performing the role of a school counselor in an accredited public or private school, with 100 hours of direct services. Supervision on-site and in-class. **CR/NC only. Prerequisite:** COUN 5314 with a grade of at least a "B."

#### COUN 5396 & 5397: Supervised Practicum in Counseling

A minimum 225-clock hours of supervised experiences in a setting in which counseling services are provided. **Prerequisite:** Consent of advisor.

### Early Childhood Education (EDEC)

### EDEC 5100, 5200, 5300: Inservice Workshop

This course is designed to provide the opportunity for groups of teachers to study specific educational problems in the early childhood area. Up to six semester hours of credit in inservice workshops may be used for degree requirements with the prior approval of the student's advisor.

### EDEC 5302: Research Project in Early Childhood Education

Continuation of EDUC 5301. The student will complete an approved project under the direction of the instructor and student's advisor. **Prerequisite:** EDUC 5301, advisor consent.

#### **EDEC 5310: Integrating Nutrition Concepts into the Curriculum** The selection and teaching of appropriate nutrition concepts to young children.

## EDEC 5327: Contemporary Issues in Early Childhood Programs and Practices

Investigation of current major issues related to young children. Emphasis will be on social, legal and criminal conditions which affect child rearing practices and educational programs for children.

### EDEC 5332: The Care of Infants and Toddlers

Observing and recording behavior and development during the first three years of life. Application of multidisciplinary theories of development to enhance age-appropriate experiences within home and institutional settings and analysis of current research are included. Field experience.

# EDEC 5335: Developmental Language Experiences for Young Children

A study of the developmental processes by which children attain language. Focus on the use of techniques and materials to promote communication skills from birth through eight years.

### EDEC 5337: Creative Activities for the Young Child

Use of art, dramatic play, music, and play media to develop the affective, cognitive, and psychomotor skills of children two through eight years of age.

### EDEC 5340: Seminar in Early Childhood Education

Techniques for encouraging the continuous growth and development of young children through the use of methods, materials, and activities. Students have the opportunity to study current problems and issues as well as to critically evaluate research in early childhood education.

### EDEC 5342: Development of the Young Child

Use of various methods of studying children with application of established principles to the solution of problems of behavior and learning. Field experience required.

### EDEC 5348: Curriculum Development in Early Childhood

In-depth study of basic principles underlying curriculum construction in early childhood. Emphasis will be on the selection and organization of activities and materials for use with young children.

# EDEC 5349: Instructional Improvement in Early Childhood Education

Innovative strategies and materials specifically related to meeting the individual learning needs of children three years of age through third grade in science, mathematics, and the social sciences.

### EDEC 5352: Practicum in the Kindergarten

Supervised teaching in the kindergarten. Includes observing, planning, conducting and evaluating learning experiences for young children. **Prerequisite:** Nine semester hours in Early Childhood Education and consent of advisor.

### EDEC 5395: Thesis

Selection of a research topic and development of a thesis plan. **CR/NC only. Prerequisite:** Fifteen graduate hours.

### EDEC 5396: Thesis

Completion and approval of thesis. **CR/NC only. Prerequisite:** EDEC 5396 or concurrent enrollment.

### EDEC 5630: Comparative International Early Childhood

Provides the student with opportunities to visit and compare early childhood educational programs in a variety of international settings. Pre-trip classroom experiences enhance the travel experience.

### EDEC 5199 - 5699: Independent Study

Independent study in specific areas of early childhood education not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

### Education (EDUC)

### EDUC 5115: Practicum in Classroom Teaching

Supervised practicum in classroom teaching. Application of foundational and pedagogical skills and knowledge in content area teaching. **CR/NC only. Prerequisite:** Advisor approval.

### EDUC 5100, 5200, & 5300: Inservice Workshop

This course is designed to provide instruction for groups of teachers who wish to study specific educational problems in the education area. Up to six semester hours of credit in inservice workshops may be used for degree requirements with the prior approval of the student's advisor.

### EDUC 5301: Research Methods for the Behavioral Sciences

Study of basic research techniques and methodologies in behavioral sciences.

### EDUC 5302: Research Project in Curriculum and Instruction

Continuation of EDUC 5301. The student will complete an approved project under the direction of the advisor. **Prerequisite:** Formal admission to graduate program, EDUC 5301, consent of advisor.

### EDUC 5303: Applied Learning Theories

Emphasis on understanding and analyzing contemporary learning theories and their application to educational situations. **Prerequisite:** At least three semester hours of undergraduate educational psychology.

### EDUC 5305: Secondary School Teaching

Basic concepts of goal-referenced instruction, diagnosis, evaluation, understanding learners, and applying psychological principles in classrooms. **Prerequisite:** EPSY 3340.

### EDUC 5306: Selected Topics in Education

This course can be taken up to three times for credit when content changes. Offered every Fall, Spring, and Summer.

### EDUC 5308: Current Issues in Education

Investigation of current issues which are facing the educational scene. Becoming aware of the new philosophical trends which are more obvious in both public schools and colleges, attitude and attitude change which affect the structure of the modern student and, of necessity, modify the curriculum and physical plant of the schools. Criticism, conflict, and change will relate to the social, political, legal, technical, and operational dimensions as they revolve about the educational community.

### EDUC 5309: Educational Applications of Microcomputers

Concentrates on classroom applications of microcomputer technology. Participants will be given the opportunity to have 'hands-on' experience on microcomputer in ways that relate directly to potential classroom use. Designed for teachers and administrators (K-12) with little or no computer background.

### EDUC 5312: Aerospace Education

This course is designed to provide teachers with the opportunity to learn how to make the subject of flight, both within and outside of the earth's atmosphere, relevant to the classroom at all grade levels. Emphasis is placed on the planning of classroom activities, and includes the acquisition of appropriate materials, films, and literature from both government and private sources.

### EDUC 5320: World Wide Web Applications

Using the resources of the World Wide Web to enhance classroom instruction and learning. **Prerequisite:** Proficiency in computer skills, off-campus access to a microcomputer and the Internet, and consent of Instructor.

### EDUC 5328: Instructional Leadership Training

An overview of the principles of learning, effective teaching practices, and developmental supervision process.

### EDUC 5335: Approaches to Classroom Management and Discipline

Study of managerial dimensions of teaching. Skill development in management, discipline and communication.

# EDUC 5340: Instructional Improvements in Secondary School English and Language Arts

Emphasis on updating instructional abilities in secondary English and language arts including diagnosis, alternative teaching strategies and evaluation. **Prerequisite:** Secondary teaching experience in language arts.

# EDUC 5341: Instructional Improvement in Secondary School Social Studies

Emphasis on updating instructional abilities in secondary social studies including diagnosis, alternative teaching strategies, and evaluation. **Prerequisite:** Secondary teaching experience in social studies.

# EDUC 5342: Instructional Improvement in Secondary School Mathematics

Emphasis of updating instructional abilities in secondary mathematics including diagnosis, alternative teaching strategies, and evaluation. **Prerequisite:** Secondary teaching experience in mathematics.

# EDUC 5347: Instructional Improvement in Elementary School Social Studies

Emphasis on updating instructional abilities in elementary social studies including diagnosis, alternative teaching strategies, and evaluation. **Prerequisite:** Elementary teaching experience.

# EDUC 5348: Instructional Improvement in Elementary School Mathematics

Emphasis on updating instructional abilities in elementary mathematics including diagnosis, alternative teaching strategies, and evaluation. **Prerequisite:** Elementary teaching experience.

# EDUC 5349: Instructional Improvement in Elementary School Science

Emphasis on updating instructional abilities in elementary science. Process teaching approaches will be emphasized. **Prerequisite:** Elementary teaching experience.

### EDUC 5350: Teaching in the Middle School

Survey of the role of the middle schools in current educational practice. Emphasis on the unique characteristics of the emerging adolescent.

### EDUC 5351: Assessment in Educational Settings

Analysis and application of elements of pre- and post-assessment in educational settings including learning products and processes, learning environments and instructional decisions.

### EDUC 5352: Curriculum Foundations

Theory and design of curriculum materials.

#### EDUC 5354: Curriculum Development for Secondary Teachers Foundations of curriculum design, teaching, and learning in the secondary

Foundations of curriculum design, teaching, and learning in the secondary school.

### EDUC 5356: Education That Is Multicultural

Application of the concepts of multicultural curriculum, instructional methodology and fundamental educational commitments in the total school setting. Includes a study of the development of ethnic studies, multicultural education and education that is multicultural. Students will develop a case study of an educational policy issue from a multicultural perspective and will perform an assessment of an educational program using an instrument designed to describe the status of education that is multicultural.

### EDUC 5358: Human Relations in the Classroom

Practical applications of human relations and interpersonal communications in the classroom. Includes consideration of how to deal with discipline problems, using groups more effectively in teaching, and effective decision-making in the classrooms.

### EDUC 5359: Educational Technology

Examines ways in which the newer electronic technologies: microcomputers, laser video discs, robotics, telecommunications, CD-ROM, multimedia, etc. can be used to enhance teaching and learning in educational settings.

# EDUC 5370: Historical and Philosophical Foundations of American Education

A survey of major historical and philosophical eras and themes which have influenced American education. Major educational contributions of other civilizations will be examined as they pertain to the development of American educational thought.

### EDUC 5199 - 5699: Independent Study

Independent study in specific areas of education not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of Director of School of Education.

### Educational Internship (EDIN)

### EDIN 5320-5321: Internship in Special Education

This one-year field-based experience provides candidates opportunities for development of competencies in implementing an individual program for exceptional learners in grades PK-12. The intern teaches under the supervision of a public school mentor and a university faculty member. This course may not be used to meet graduate degree requirements. **CR/NC only. Co-requisites:** EDUC 4057; Cardiopulmonary resuscitation (CPR) training, TB test, completion of all professional development courses and all EDSP courses with a minimum 2.5 GPA, a positive recommendation from the Phase III faculty, and an appropriate undergraduate degree.

# EDIN 5380 - 5381: Internship in Student Teaching in Elementary School

Provides the intern teacher with an opportunity to demonstrate identified competencies in an elementary classroom. The intern will be under the supervision of a mentor teacher and university faculty member with scheduled seminars. **CR/NC only. Co-requisite:** Cardiopulmonary resuscitation (CPR) training.

### EDIN 5385-5386: Internship in Grades 4-8

Provides intern teacher with an opportunity to demonstrate identified competencies in an intermediate grade (Grades 4-8) classroom. The intern serves under the supervision of a mentor teacher and a university faculty member with scheduled seminars. **CR/NC only. Prerequisite:** Cardiopulmonary resuscitation (CPR) training.

## EDIN 5390 - 5391: Internship in Student Teaching in Secondary School

Provides the intern teacher with an opportunity to demonstrate identified competencies in a secondary classroom. The intern will be under the supervision of a mentor teacher and university faculty member with scheduled seminars. **CR/NC only. Prerequisite:** Cardiopulmonary resuscitation (CPR) training.

# Educational Leadership and Policy Studies (EDLR)

### EDLR 5100, 5200, 5300: In-service Workshop

This course is designed to provide opportunities for groups of educators to study specific topics and problems in the area of educational administration. Up to six semester hours of credit in Inservice Workshop may be used for degree and certification requirements with prior approval of the student's advisor.

### EDLR 5310: Educational Leadership Theory and Practice

An overview of school administration, including economic, political, and societal influence. Must be taken concurrently with EDLR 5313.

### EDLR 5311: Developmental Supervision

An advanced course in school personnel supervision for building principals. This course specifically builds on the concepts of the state mandated Instructional Leadership Development model. Must be taken concurrently with EDLR 5370 and EDLR 5349.

### EDLR 5313: Critical Issues in Educational Leadership

An inquiry into critical issues in educational leadership. This course engages students in a systematic exploration of critical issues in educational leadership through a formal inquiry-based approach. Must be taken concurrently with EDLR 5310.

### EDLR 5315: Instructional Leadership Development

A study of the State Instructional Leadership Development program as it pertains to the principalship. Meets the State requirement as a prerequisite for the Professional Development Appraisal System (PDAS).

### EDLR 5320: School Law

An overview of school law for educators addressing legal issues that impact the operation of public schools. Must be taken concurrently with EDLR 5271 and EDLR 5333.

### EDLR 5330: The Principalship

An examination of the role and responsibilities of the principal as a leader in the elementary, middle, and/or secondary school. Must be taken concurrently with EDLR 5272 and EDLR 5337.

### EDLR 5333: Administration of Special Programs in Schools

An overview of various instructional and support programs examining federal, state and local implications for educational leaders. Must be taken concurrently with EDLR 5271 and EDLR 5320.

### EDLR 5337: School Building Operations

The skills of principals and assistant principals to effectively operate a school will be addressed. Skills will include the financial and personnel operations in the day-to-day functioning of a school. The associated laws and their practical application to these functions will be stressed. Emphasis will be on applied skills and practical applications. Must be taken concurrently with EDLR 5272 and EDLR 5330.

### EDLR 5340: The Administrator and Community Relations

An advanced course in educational leadership designed for optimizing a campus or school district's ability to further the objectives of the institution by creating partnerships with all stakeholders.

### EDLR 5349: Leadership in the Restructured School

An in-depth investigation into contemporary literature and case studies of advanced concepts in organizational leadership, learning and change. Students will create and design advanced learning organizations in order to facilitate the change necessary to restructure schools and learning. Must be taken concurrently with EDLR 5270 and EDLR 5311.

### EDLR 5350: Personnel Administration

Study of the administrator's role in recruiting, selecting, assigning, training, and evaluating staff. Such topics as personnel policy, salary schedules, fringe benefits, contractual practices and procedures, and academic freedom are considered.

### EDLR 5353: School Finance

A course designed to address the basic concepts of public school finance from a national and state perspective.

### EDLR 5358: School Facilities

A course designed for school administrators whose responsibilities include school plant planning and management. Topics include using and maintaining existing school facilities, and the planning, designing, constructing of new school facilities.

### EDLR 5360: The School Superintendent

This course focuses on an examination of the role of the school superintendent in the public schools. Special attention is given to the leadership responsibility of the school superintendent.

### EDLR 5270: Internship in the Principalship I

A minimum of 75 clock hours of practical experience as a school administrator in a school setting. Goals, assignments, and time commitments to be determined by each internship committee. Experience guided and supervised by university and school representatives. Must be taken concurrently with EDLR 5311 and EDLR 5349.

### EDLR 5271: Internship in the Principalship II

A minimum of 75 clock hours of practical experience as a school administrator in a school setting. Goals, assignments, and time commitments to be determined by each internship committee. Experience guided and supervised by university and school representatives. Must be taken concurrently with EDLR 5320 and EDLR 5333.

### EDLR 5272: Internship in Principalship III

A minimum of 75 clock hours of practical experience as a school administrator in a school setting. Goals, assignments, and time commitments to be determined by each internship committee. Experience guided and supervised by university and school representative. Must be taken concurrently with EDLR 5330 and EDLR 5337.

### EDLR 5375: Internship in the Superintendency

A field based course to provide superintendent candidates with on-the-job experiences. Requires assignment in a local school district and commitment of superintendent to supervise the internship. **Prerequisite:** Recommendation of faculty advisor.

### EDLR 5199 - 5399: Independent Study

This course provides an opportunity for the graduate student to conduct an indepth study in a specific area of educational leadership not covered by organized graduate courses. A maximum of six hours of independent study courses may be applied toward a graduate degree and certification in educational leadership. **Prerequisite:** Consent of department chair.

### Gifted and Talented Education (EDGT)

### EDGT 5354: Overview of Gifted Education

A study of education of gifted and talented students that includes historical overview of gifted education, definitions, terminology, theories, models, and characteristics. In addition, identification and assessment procedures, program prototypes, and teacher characteristics are addressed.

# EDGT 5355: Teaching the Gifted: Methods, Materials, and Curriculum

A study of methods, materials, and curriculum for gifted and talented students. Content consists of the scope and sequence in gifted programs, adaptations for individual differences, organization of thematic interdisciplinary content, and teaching higher level cognitive skills, creative thinking, problem solving, critical thinking, logical thinking, and decision making.

# EDGT 5360: Seminar: Counseling and Guidance of Gifted and Talented Students

A study of counseling and guidance of gifted students that includes differential affective characteristics of gifted and talented students, general counseling theories, guidance techniques, communications with parents and teachers of gifted, and school role in psycho-social development.

### EDGT 5362: Creativity: Theories, Models, and Applications

A study of creativity in relation to development of programs for gifted and talented students. Topics include instruments and techniques for identifying creativity, theories and models of creativity, instructional strategies for enhancing creativity, problems of creatively gifted, and evaluation of creative performance and product.

### EDGT 5370: Practicum in Gifted and Talented

Provides students with opportunities to experience educational programs with exceptional children and youth directly related to potential professional goals. Clinical experience provided. **Prerequisite:** EDGT 5354, 5355, 5360, 5362, and consent of instructor.

## Psychology (PSYC)

### PSYC 5301: Tests and Measurement

Reviews major issues in psychological and educational measurement with emphasis on test development and the evaluation of psychometric properties. A secondary emphasis is on the application of various psychological tests. **Prerequisites:** PSYC 1301 and PSYC 3354 or equivalent.

### PSYC 5308: Advanced Psychopathology

Examines psychopathologies. Attention given to the causes of abnormal behavioral patterns, the labeling process, psychiatric nomenclature, and treatment procedures. Rationales for viewing deviance will be presented: analytic, behavioral, phenomenological, and biological. **Prerequisite:** PSYC 4311 or equivalent.

### PSYC 5312: Counseling Theories

An overview of the current theoretical approaches to psychotherapy, including problems of assessment, therapeutic contracting, and intervention strategies/techniques. **Prerequisite:** Consent of instructor.

### PSYC 5320: Advanced Study in Human Growth and Development

An advanced study of the synthesis of knowledge concerning sensory-motor skills, communication skills, social-emotional skills, and cognitive functions of learners.

### PSYC 5325: School Psychology

Examination of the profession of school psychology; problems of psychological evaluation and remediation, referral and liaison with community mental health

agencies and other service centers; psychological reports and ethics of psychologists.

### PSYC 5326: Psychological Consultation

Designed to familiarize students with the theory and processes of psychological consultation using a combination of didactic instruction and laboratory skills training. Emphasis is on consulting in educational settings and, secondarily, in other settings (e.g., hospitals, industrial). **Prerequisite:** Consent of instructor.

### PSYC 5328: Issues and Professional Ethics

Survey of issues in the practice of psychology and counseling from an ethical and professional viewpoint. Consideration of such things as the rules of the psychology and counseling boards, ethical case studies and professional practices.

### PSYC 5330: Counseling Children and Adolescents

Examines the relevant counseling theories and techniques as they apply to children and adolescents. Includes interventions with emotionally disturbed or behaviorally disordered children. **Prerequisite:** Consent of instructor.

### PSYC 5340: Advanced Psychological Statistics and Design

Includes aspects of complex experimental designs, statistical hypothesis testing, decision theory, multiple regression analysis, ANOVA, distribution-free techniques, and factor analysis. **Prerequisite:** PSYC 3331 and PSYC 3354 or equivalents.

### PSYC 5345: Group Processes

An introduction to social and interpersonal influences on behavior, group dynamics, developmental stages of a group, and an overview of theoretical approaches to group counseling. Emphasis is on developing group leadership skills. **Prerequisite:** CI.

### PSYC 5350: Clinical Neuropsychology

Introduction to historical background of brain-behavior relationship. Focus upon brain pathologies and underlying brain structures: aphasia, alexia, agraphia, body schema disturbances, apraxia, agnosia, neglect syndromes, late and early onset dementias, frontal lobe syndrome, seizure disorders, and related brain syndromes.

### PSYC 5352: Behavioral Neuroscience

A survey of the basic anatomy and neurochemistry of the brain as it relates to both normal and abnormal behavior. Includes every major neurotransmitter of the brain and abnormalities of these systems as they relate to human behavior.

### PSYC 5354: Psychopharmacology

A survey of physiological and behavioral effects of the major classes of psychoactive drugs including therapeutic agents and drugs of abuse, mechanisms of action, side effects, and effects on the fetus. **Prerequisite:** PSYC 4318 or equivalent.

### PSYC 5356: Neuropsychological Assessment of Memory

The basic skills and theory of memory assessment in diverse patients including geriatric individuals. Emphasis will be on the administration, scoring and interpretation of The Wechsler Memory Scale and Memory Assessment Scales, and the Rey Auditory Verbal Learning Test (RAVLT). **Prerequisite:** Neuropsychology Specialization or consent of instructor. **Recommended:** PSYC 4318 or equivalent.

### PSYC 5358: Neuropsychological Assessment: Halstead-Reitan

Basic skills in neuropsychological assessment and brain functioning with emphasis on administration, scoring, and interpretation of the Halstead-Reitan Neuropsychological Testing Battery. **Prerequisite:** A previous assessment course or testing background and consent of instructor. **Recommended:** a physiological psychology course.

### PSYC 5359: Flexible Neuropsychological Battery

Intended to develop entry-level testing skills for specific cognitive domains, including attention and concentration, verbal and nonverbal memory, language, motor performance, abstract thinking, reasoning, visuospatial ability, and executive function.

### PSYC 5361: Behavior Modification

An exploration of behavioral learning principles and application of these learning principles for children and adults. Both research and effective intervention/treatment planning is emphasized. **Prerequisite:** PSYC 3225/3125 or equivalent and consent of instructor.

### PSYC 5366: Assessment of Individual Mental Ability I

Examines the historical background of selected individual scales of intellectual functioning. Special emphasis will be given to supervised practice in the administration, scoring, interpretation, and psychological report writing of the WISC, WAIS and WPPSI. **Prerequisite:** PSYC 4301, PSYC 5301, or equivalent; and consent of instructor.

### PSYC 5367: Assessment of Individual Mental Ability II

A course emphasizing the Stanford Binet IQ test and other appropriate school testing instruments. Special emphasis on supervised practice in the administration, scoring, interpretation, and psychological report writing. **Prerequisite:** PSYC 4301, PSYC 5301, or equivalent; and consent of instructor.

### PSYC 5368: Assessment of Personality

An examination of personality assessment instruments that are employed in a variety of settings; administration, scoring, interpretations and psychological report writing for selected instruments will be covered. **Prerequisite:** Major in psychology and consent of instructor.

### PSYC 5369: Psychological Assessment of Children and Adolescents

A survey course in the psychological assessment of children and adolescents. Includes a review of basic psychometrics and classification systems for child psychopathology. Focuses on different types of assessment procedures used with children and adolescents as well as the assessment/diagnostic process. Attention given to specific psychological disorders of children and adolescents. **Prerequisite:** Consent of instructor.

## PSYC 5370: Principles and Bioinstrumentation Theory in Biofeedback

Review of research and origin of biofeedback methods; feedback myography, feedback encephalography and feedback skin temperature; operation and use of equipment and principles of operant conditioning will also be covered. **Prerequisite:** PSYC 4318 and consent of instructor.

#### PSYC 5371: Seminar in Bio-Feedback and Affective Conditioning

Clinical applications of bio-feedback technology. Training in deep muscle relaxation, EEG shaping, desensitization, skin temperature conditioning. **Prerequisite:** PSYC 5370 or equivalent.

### PSYC 5373: Diagnosis and Treatment of Child Sexual Abuse

An intensive study of the appropriate procedures for the diagnosis, assessment and various treatment strategies of sexual abuse in children and adolescents.

### PSYC 5380: Seminar in Psychology

Seminars of topical interest in specialized areas of psychology. **Prerequisite:** Consent of instructor.

### PSYC 5384: Cognitive Therapy: Theory and Application

An in-depth exploration of the theoretical assumptions underlying cognitivebehavioral therapy and its application in treating depression, anxiety, anger, relationship problems, and personality disorders. Tier II. **Prerequisites:** PSYC 5361 and consent of instructor.

### PSYC 5388, 5389: Supervised Internship in School Psychology

A minimum of 600-clock hours of supervised experiences in an appropriate setting. Experiences include assessment, intervention, behavior management, and consultation for children representing a range of ages, populations, and needs. The internships must meet the criteria for a school psychology internship established by the Texas State Board of Examiners of Psychologists. Tier II. **CR/NC only. Prerequisite:** Consent of instructor.

### PSYC 5390: Psychology of Aging

Examines various aspects of aging, with a major focus on the psychosocial stresses and adaptive processes associated with changes in cognitive function, sensory processes, personality, social and work roles, and physiology in the aged.

### PSYC 5391: Social and Biological Gerontology

Examines various social and biological theories of aging, with a major focus on mental health issues. Includes diagnostic evaluation, adjustment efforts, and treatment processes. Recommended: PSYC 5390 or equivalent.

### PSYC 5392: Applied Counseling Practice

A clinical skills course emphasizing the acquisition of practical therapeutic techniques through role playing and modeling. Video and audio feedback as well as direct supervision given. Tier II. **Prerequisite:** Grade of "B" or better in PSYC 5308, 5312, and 5328.

### PSYC 5393: Applied Therapy

The application of practical therapeutic techniques with clients. Video feedback and direct supervision. Tier II and integration of clinical and counseling skills through closely supervised work with community clients at the departmental clinic. **Prerequisite:** "B" or better in COUN 5324 and PSYC 5392; and CI.

### PSYC 5394, 5395: Thesis

Selection of a research topic and development of a thesis plan. **CR/NC only. Prerequisite:** Consent of advisor.

### PSYC 5396, 5397: Supervised Practicum in Psychology

At least 300 clock hours of supervised experiences in a setting that provides psychological services. On-site supervision and on-campus small group supervision required. **CR/NC only. Prerequisite:** Grade of "B" or better in PSYC 5393; Good academic standing and consent of advisor.

### PSYC 5398: Research Seminar

This course is a capstone experience in which the student identifies a research topic, conducts comprehensive literature reviews, and then develops a substantial written Research Seminar Paper, which may be a critical literature review, an original small empirical research project, an original applied evaluation project, or an original grant proposal. The Research Seminar Paper will be in the form of a professional journal article manuscript.

### PSYC 5199 - 5399: Independent Study

Independent study in specific areas of psychology not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of advisor.

### Reading Education (READ)

### READ 5100, 5200 & 5300: In-service Workshop

Designed to provide opportunities for groups of teachers who wish to study specific educational problems in the reading area. Up to three semester hours of credit in inservice workshops may be used for degree requirements with the prior approval of the student's advisor.

### READ 5360: Advanced Developmental Reading Seminar

A study of the elementary reading program, including emergent literacy and the developmental reading areas, using literature-based and basal reading materials. Focus is on teacher/learner strategies that emphasize the reading/writing connection.

### READ 5362: Reading Diagnosis

A study of individual and group diagnostic reading procedures for grades one through college. Experience in testing and reporting of results included.

### READ 5363: Remedial and Corrective Reading: K-Adult

Provides the graduate student with experiences in process assessment, including theoretical foundations, purposes and procedures. Students will supervise instruction to struggling readers in a tutorial setting.

### READ 5364: Reading Research Seminar

A study of current research and relevant issues. The student will have the opportunity to design and complete a graduate research project under the direction of the instructor.

### READ 5365: Literacy and Cognitive Coaching Practicum

A study of the organization, maintenance, and evaluation of remedial reading programs. Practicum experiences in supervising preservice teachers within a cognitive coaching model.

### READ 5367: Reading and Writing Workshop II - Secondary

A study of techniques for implementing a reading/writing workshop in an elementary or secondary classroom. Students will be immersed in both reading and writing, and will experience first hand conferencing, mini lessons, read alouds, grouping, revising, editing, and publishing.

### READ 5368: Organization and Supervision of Reading Programs

Designed to investigate the role of the supervisor and to provide the student with the opportunity to develop, organize, and administer reading programs.

### READ 5369: Reading and Writing Workshop I - Elementary

A study of techniques for implementing a reading/writing workshop in an elementary classroom.

### READ 5380: Topics in Reading

Focuses on current topics related to literacy. Three hours credit may be applied to a degree plan with consent of advisor. This course may be repeated for credit as topics change.

### READ 5381: Reading Recovery I

An introduction to Reading Recovery techniques including theoretical foundation, purposes, and procedures. Classroom instruction is coordinated with an integrated field experience. **Prerequisite:** Consent of instructor.

### READ 5382: Reading Recovery II

A continuation of Reading Recovery techniques including theoretical foundations, purposes, and procedures. Classroom instruction is coordinated with an integrated field experience. **Prerequisite:** Consent of instructor and READ 5381.

### READ 5388: Content Literacy in the Secondary School

A study of the assessment of textbooks, content area reading-study skills, teacher/learner strategies via a content reading lesson, assessment procedures, and development of secondary reading programs.

### READ 5395: Thesis

Selection of a research topic and development of a thesis plan. **CR/NC only. Prerequisite:** Fifteen graduate hours.

### READ 5396: Thesis

Completion and approval of thesis. **CR/NC only. Prerequisite:** READ 5395 or concurrent enrollment.

### READ 5199 - 5399: Independent Study

Independent study in specific areas of reading not covered by organized graduate courses. A maximum of six credit hours of independent study course may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

### Special Education (EDSP)

### EDSP 5100, 5200 & 5300: In-service Workshop

Designed to provide the opportunity for groups to study specific educational problems related to exceptional learners. Credit in no more than six semester hours of in-service workshops may be used for degree requirements with the prior approval of the student's advisor.

### EDSP 5350: Overview of Special Education (Birth -21)

An advanced study of the history, philosophy, and structure of educational programs for learners with exceptionalities from birth through 21with emphasis on federal and state regulations affecting special education. Addresses educational, medical, psychological, and social factors specific to individuals with disabilities.

### EDSP 5352: Infants and Young Children

A study of characteristics and learning needs of infants and young children with disabilities. Includes early identification related to motor behavior, adaptive behavior, communication, and personal-social behavior, as well as interaction and management techniques.

#### EDSP 5357: Practicum in Special Education

Provides student with opportunities to experience educational programs with individuals with disabilities directly related to potential professional goals. Clinical experience provided. **Prerequisite:** EDSP 5364 and 5368 (general program), or EDSP 5364, 5366, 5368 and PSYC 5366 (diagnostician program), or CI.

### EDSP 5360: Seminar: Learning and Neurological Disabilities

A study of the behavioral, motor, and learning characteristics of individuals with learning and neurological disabilities.

### EDSP 5362: Adolescents and Adults with Disabilities

A study of the characteristics and learning needs of the adolescent and adult with disabilities including career and vocational alternatives, transition, and inter-agency cooperation.

### EDSP 5363: Behavioral Disorders

A study of the psychology of disruptive behavior, including definitions, characteristics, identification, and academic and social interventions for managing behavior. Consideration is given to functional behavioral assessments, behavioral intervention plans, Positive Behavioral Support, and other major approaches for changing behavior

### EDSP 5364: Seminar: Assessment in Special Education

Detailed study of test construction and test administration. Includes instruction and clinical experience in the administration and interpretation of individual standardized achievement tests.

### EDSP 5365: Developmental Testing

Examines approaches to assessing the academic readiness and aptitude of preschool, elementary and secondary children in terms of developmental level and intellectual functioning. Special emphasis will be given to supervised practice in the administration, scoring, and interpretation of results from selected assessment instruments. **Prerequisite:** Experience with or course work on standardized testing.

### EDSP 5366: Seminar: Full Individual Evaluation

A study of major standardized instruments utilized in the full individual evaluation of language, sociological, physical and behavioral/emotional areas, intellectual functioning and adaptive behavior, educational achievement, and learning competencies. Clinical and field experience in administration, scoring and interpretation, comparisons with intellectual functioning for determining the existence of a handicapping condition, report writing and educational prescriptions are included. **Prerequisite:** EDSP 5364 and PSYC 5366.

### EDSP 5367: Serious Emotional Disturbance and Autism

A study of the major social, educational, and behavioral interventions for individuals with serious emotional disturbance or autism including applied behavioral analysis, behavioral self-control, crisis intervention, management of violent behavior, medical management, parent training, interdisciplinary coordination, systematic instruction, curriculum development, sensory integration, and other aspects unique to this population. **Prerequisite:** EDSP 5363.

#### EDSP 5368: Seminar: Educational Strategies for Special Education

Presentation and application of major educational strategies for individuals with disabilities. Includes investigation of methodology, materials, state-mandated assessments, and augmentative/assistive technology; application of current teacher evaluation system with special educational programs. Clinical experience included. **Prerequisite:** EDSP 5364 and additional 12 semester hours in special education, or consent of instructor.

#### EDSP 5369: Severe/Profound and Multiple Disabilities

A study of the major characteristics and instructional concerns of students manifesting severe/profound or multiple disabilities. Course examines current principles and practices in the development and implementation of educational and vocational curricula and programming for children and youth with these disabilities. Field experience included.

## EDSP 5370: Learning Theory as Applied to Individuals with Disabilities

Investigation of major learning theories and consultation applied to programs for individuals with disabilities.

### EDSP 5375: Communication Disorders

A comprehensive study of communication disorders and major remediation techniques as related to individuals with special learning needs.

#### EDSP 5376: Contemporary Issues in Special Education

Discussion and investigation of current major issues in education of individuals with special learning needs. **Prerequisite:** Consent of instructor.

#### EDSP 5377: International Programs in Special Education

A detailed study of approaches to assessment and remediation of individuals with disabilities in selected foreign countries including investigation of current literature and governmental regulations. Course includes on campus seminars prior to travel in countries selected for study.

#### EDSP 5378: Administrative and Legal Issues in Special Education

An in-depth study of federal and state education laws, court cases, related legal issues affecting special education. Content includes legal/administrative responsibilities inherent in special education program planning and development, alternative program formats, funding sources, consultation, and communication techniques.

### EDSP 5199 - 5399: Independent Study

Independent study in specific areas of special education not covered by organized graduate courses. A maximum of six credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

# GRADUATE COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Dr. James Nelson, Dean

### Master of Science in Civil Engineering

### Dr. Ron Welch, Chair

The Department of Civil Engineering offers the Master of Science in Civil Engineering and the Master of Science in Industrial Safety. The M.S. in Civil Engineering has three options to earn the degree: (1) research option, (2) professional practice option, and (3) technical and management development option.

### Master of Science in Civil Engineering--30-36 Semester Credit Hours

### Admission Requirements

Students entering the Master of Science in Civil Engineering (MSCE) program are expected to have a background equivalent to that of students graduating from the Bachelor of Science in Civil Engineering (BSCE) program offered at The University of Texas at Tyler, or to obtain such background through specified prerequisite coursework.

In addition to the general requirements for admission to graduate study at The University of Texas at Tyler, to be admitted to the MSCE program a student must meet the following admission requirements.

- A. Satisfactory score on the General Test (verbal and quantitative) of the Graduate Record Examination (GRE)
- B. Satisfactory grade point average on the student's last four semesters of academic study and last 60 semester credit hours of upper division undergraduate or graduate courses
- C. A bachelor's degree in a Civil Engineering program accredited by the ABET Engineering Accreditation Commission. Students who have not earned such a degree will be required to complete prerequisite coursework before starting the MSCE program.
- D. A demonstrated proficiency in the use of the English language, both spoken and written
- E. Approval of the MSCE Program Administrator and the Chair, Department of Civil Engineering

Consideration for admission to the Master of Science in Civil Engineering program will also be given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

### Graduation Requirements

There are three options to earning the Master of Science in Civil Engineering (MSCE): (1) research option, (2) professional practice option, (3) technical and management development option.

Regardless of option selected, a student must complete a graduate course in advanced mathematics. At least 50 percent of the required total credit hours applied to the MSCE, excluding thesis or design project, must be Civil Engineering courses and at least two-thirds of the credit hours applied to the degree must be taught by a department in the College of Engineering and Computer Science. No more than three credit hours of independent study courses may be applied to the degree. The student must attain an average of 3.0 GPA on all course work applied to the MSCE. The program options and additional degree requirements are as follows:

**Option 1 – Research (30 SCH):** Students must successfully complete at least 24 semester credit hours of graduate coursework, including at least three

courses in a primary area of study within civil engineering and at least two courses in a secondary area of study within civil engineering, successfully complete at least six credit hours of graduate thesis research, successfully prepare a research thesis, and pass a final oral examination that is primarily focused on the research thesis but may also address coursework. The final examination will be administered by the student's graduate academic committee. This program option is intended primarily for students who wish to conduct research and expand civil engineering knowledge. (This is the only degree option for which graduate assistantships are available.)

- **Option 2 Professional Practice (30 SCH):** Students must successfully complete at least 27 semester credit hours of graduate coursework, including at least three courses in each of two areas of civil engineering, and at least three semester credit hours of graduate capstone design that culminates in the preparation of a design project report. Depending upon the student's previous background, a course in management may be required, because the focus of this degree option is professional practice. Further, each student must pass the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) examination and must pass a final oral examination that is focused on the graduate design project. The final examination will be administered by the student's graduate academic committee. This degree option is intended primarily for students who intend to practice civil engineering at the professional level.
- **Option 3 Technical and Management Development (36 SCH):** Students must successfully complete at least 36 semester credit hours of graduate coursework, including at least three courses in each of two areas of civil engineering and three courses developing business management and engineering management skills. At least two Civil Engineering courses used for the program must be graduate design courses. Further, students must pass a final comprehensive written and/or oral examination that addresses the student's undergraduate and graduate education. The final examination will be coordinated by the student's graduate academic advisor. This degree option is intended primarily for students in practice who want to enhance their technical skills and to develop management skills.

## Master of Science in Industrial Safety

Master of Science in Industrial Safety--36 Semester Credit Hours

The Master of Science in Industrial Safety is designed to prepare the individual in the field of risk management, the management of the environment, and implementing programs through safety principles, practice, and laws. The M.S. in Industrial Safety is recognized by the Institute for Safety and Health Management.

**Degree Requirements:** The Master of Science in Industrial Safety degree is a 36-hour program that includes the following requirements:

Professional Core:			6		
	TECH 5301:	History &	Philosophy of H	IRD/Technology	
	TECH 5303:	Research T	echniques in H	RD/Technology	
Industrial Safety Core:			18		
		17	0 5 1 .	· UDD/T 1	1

HRD 5307:	Measurement & Evaluation in HRD/Technology	
TECH 5320:	Total Quality Management	
TECH 5330:	Safety & Health Developments	
TECH 5341:	Safety Programs	
TECH 5346:	Environmental Management	
One of the following:		

### GRADUATE COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

TECH 5325:	Administration & Supervision of HRD	
TECH 5328:	Topics in Technical Programs	
TECH 5370:	Graduate Internship	
TECH 5371:	Graduate Internship	
Electives:		12
MANA 5320:	Human and Organizational Behavior	
MANA 5350:	Seminar in Human Resources Management	
HRD 5313: Management of Instructional Environment		
One of the following:		
TECH 5318:	Computer Applications in Technology	
TECH 5305:	Seminar: Technology Perspectives	
TECH 5331:	Project Management	
HRD 5342:	Trends in Training	
HRD 5350:	Organization Development	
HRD 5352:	Leadership & Ethics in HRD	
	Total	36

Leveling (foundation) work may be assigned to those students entering this major field of study who have had no prior related course work or experience. This leveling course work will consist of the following courses pending the evaluation of the student's academic transcript by his/her academic advisor:

Foundation	n Total	15
TECH 3344:	Industrial Safety	
TECH 4303:	Fire Safety Systems	
TECH 4330:	OSHA	
TECH 4332:	Industrial Environmental Problems	
TECH 4356:	Ergonomics in the Workplace	

### Master of Science in Electrical Engineering

#### Dr. Mukul Shrivaikar, Chair

The Department of Electrical Engineering offers the Master of Science in Electrical Engineering with two options to earn the degree: (1) research option and (2) non-thesis option.

### Master of Science in Electrical Engineering--Total Semester Credit Hours = 30-36

### Admission Requirements

Students entering the Master of Science in Electrical Engineering (MSEE) program are expected to have a background equivalent to that of students graduating from the Bachelor of Science in Electrical Engineering (BSEE) program offered at The University of Texas at Tyler, or to obtain such background through specified prerequisite coursework.

In addition to the general requirements for admission to graduate study at The University of Texas at Tyler, to be admitted to the MSEE program a student must meet the following admission requirements.

- A. Satisfactory score on the General Test (verbal and quantitative) of the Graduate Record Examination (GRE).
- B. Satisfactory grade point average on the student's last four semesters of academic study and last 60 semester credit hours of upper division undergraduate or graduate courses.
- C. A bachelor's degree in an Electrical Engineering program accredited by the ABET Engineering Accreditation Commission. Students who have not earned such a degree will be required to complete prerequisite (leveling) coursework before starting the MSEE program as determined by the MSEE Program Administrator.
- D. A demonstrated proficiency in the use of the English language, both spoken and written.
- E. Approval of the MSEE Program Administrator and the Chair, Department of Electrical Engineering.

Consideration for admission to the Master of Science in Electrical Engineering program will also be given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

### Graduation Requirements

There are two options to earning the Master of Science in Electrical Engineering (MSEE): (1) thesis option and (2) non-thesis option. Regardless of option selected, a student must complete a graduate course in advanced mathematics.

At least eighteen hours (including the thesis) must be in the major area; at least six hours must be in a supporting area and can include courses outside the department. The supporting courses may be in electrical engineering but must represent a specialty distinct from the major courses. At least two-thirds of the credit hours applied to the degree must be taught by a department in the College of Engineering and Computer Science. To graduate the student must earn at least a 3.0 grade point average on all course work used for the graduate degree. No more than three credit hours of independent study courses may be applied to the degree.

The program options and additional degree requirements are as follows:

- **Thesis Option (30 SCH):** Students must successfully complete at least 24 semester credit hours of graduate coursework, successfully complete at least six credit hours of graduate thesis research, successfully prepare a research thesis, and pass a final oral examination that is primarily focused on the research thesis but may also address coursework. The final examination will be administered by the student's graduate academic committee. This program option is intended primarily for students who wish to conduct research and expand electrical engineering knowledge. (This is the only degree option for which graduate assistantships are available.)
- **Non-Thesis option (36 SCH):** Students must successfully complete at least 36 semester credit hours of graduate coursework. Further, students must pass a final comprehensive written and/or oral examination that addresses the student's undergraduate and graduate education. The final examination will be coordinated by the student's graduate academic advisor. This degree option is intended primarily for students in practice who want to enhance their technical skills.

### Program Outcomes

The "Program Outcomes" of the MSEE program represent the knowledge, skills, and abilities that graduates are expected to have at the time of completion of their program.

- A. Graduates of the program will possess a breadth and depth of knowledge in electrical and computer engineering: Students will possess and be able to apply knowledge and principles at a graduate level in two or more of the following areas utilizing modern engineering tools: electronics, power systems, controls, advanced engineering mathematics, signal processing, communications, real-time systems, computer systems, electromagnectic and power electronics.
- B. Graduates of the program will possess and demonstrate oral and written communication skills: Students will be adequately prepared for entrance into advanced careers or into a doctoral program through reports, papers, publications or presentations.
- C. Graduates of the programs will demonstrate the capability to perform independent learning and investigation: Studetns will successfully address electrical or computer engineering problems through independent research activity in coursework or a thesis.

### Transfer of Credit

A student may transfer a maximum of 9 semester hours of graduate credit in which a grade of "B" or better has been earned from approved institutions. Transfer credit is subject to the approval of the student's advisor and departmental chair.

### Master of Science in Mechanical Engineering

Dr. Yueh-Jaw Lin, Chair

# Master of Science in Mechanical Engineering--Total Semester Credit Hours=30-36

The Master of Science in Mechanical Engineering gives students two options to earn the degree: (1) the research option and (2) the non-thesis option.

### Admission Requirements

Students entering the Master of Science in Mechanical Engineering (MSME) program are expected to have a background equivalent to that of students graduating from the Bachelor of Science in Mechanical Engineering (BSME) program offered at The University of Texas at Tyler, or to obtain such background through specified prerequisite coursework.

In addition to the general requirements for admission to graduate study at The University of Texas at Tyler, to be admitted to the MSME program a student must meet the following admission requirements.

- A. Satisfactory score on the General Test (verbal and quantitative) of the Graduate Record Examination (GRE).
- B. Satisfactory grade point average on the student's last four semesters of academic study and last 60 semester credit hours of upper division undergraduate or graduate courses.
- C. A bachelor's degree in a Mechanical Engineering program accredited by the ABET Engineering Accreditation Commission. Students who have not earned such a degree will be required to complete prerequisite (leveling) coursework before starting the MSME program as determined by the MSME Program Administrator.
- D. A demonstrated proficiency in the use of the English language, both spoken and written.
- E. Approval of the MSME Program Administrator and the Chair, Department of Mechanical Engineering.
- F. Consideration for admission to the Master of Science in Mechanical Engineering program will also be given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

### Graduation Requirements

There are two options to earning the Master of Science in Mechanical Engineering (MSME):

- 1. Thesis option. This degree option is intended primarily for students who wish to conduct research and expand mechanical engineering knowledge. A thesis is required. (This is the only degree option for which graduate assistantships are available.)
- 2. Non-thesis option. This degree option is intended primarily for the professional working engineer who wants advanced technical courses but would benefit more from completing an advanced engineering design project than a research program.

Regardless of the option selected, a student must complete a graduate course in advanced mathematics. At least eighteen hours (including the thesis or report) must be in the major area; at least six hours must be in a supporting area and can include courses outside the department. The supporting courses may be in mechanical engineering but must represent a specialty distinct from the major courses. At least two-thirds of the credit hours applied to the degree must be taught by a department in the College of Engineering and Computer Science.

To graduate, students must earn at least a 3.0 grade point average on all coursework used for the graduate degree. The program options and additional degree requirements are as follows:

**Thesis Option (30 SCH):** Students must successfully complete at least 30 semester hours of graduate credit coursework, including six hours of thesis credits. In addition to the required coursework and thesis,

students in the research option must successfully pass a final oral examination administered by the student's graduate academic committee.

Non-Thesis option (36 SCH): Students must successfully complete at least 36 semester credit hours of graduate coursework, including at least three hours in a project course that culminates in an engineering report on a significant design or analysis project performed by the student. In addition to completing all required coursework and the advanced engineering design project, students electing the non-thesis option will also be required to pass a final oral examination that is administered by the student's graduate academic committee.

### Master of Science in Computer Science

### Dr. Stephen Rainwater, Chair

The Master of Science in Computer Science offers individuals an opportunity to become more competent and productive in a variety of computing environments as computer science professionals and to prepare for further graduate study. The program is oriented toward the design, implementation and application of computer software. The program includes study in the various types of software such as compilers, operating systems, database systems and real-time systems.

The program is designed for graduates of computer science programs as well as baccalaureate graduates in other disciplines. Preparation in computer science will determine the point at which the student will enter this program.

### **Mission Statement**

The Department of Computer Science supports the mission of the College of Engineering and Computer Science through its teaching, research, and service activities. The department is committed to excellence in graduate computer science education and provides students with a strong theoretical foundation, proficiency in programming skills, experience in communications, insight into computer systems security, and training in ethics and professional conduct. In a broad sense, graduate studies provided by the department are intended to increase students' understanding and intellectual maturity in computer science. The curriculum is designed to be responsive to the dynamic requirements of the computer science field and to the needs of the variety of students.

### **Program Outcomes**

Computer science students at the time of graduation are expected to:

- possess an enhanced breadth of knowledge in computer science, combined with a depth of knowledge in critical core areas of computing;
- 2. possess the skills and knowledge for lifelong learning in computer science;
- 3. possess knowledge of the theoretical foundations of computing and have strong practical application experience;
- 4. possess and demonstrate oral and written communication skills;
- 5. understand and respect the professional standards of ethics expected of a computer scientist and be knowledgeable concerning the history of the computing field;
- 6. possess a knowledge of computer security and computer security management;
- 7. analyze and compare relative merits of alternative software design, algorithmic approaches, and computer system organization, with respect to a variety of criteria relevant to the task (e. g. efficiency, scalability, security);
- 8. implement algorithms in multiple programming languages, on multiple hardware platforms, and in multiple operating system environments.

Master of Science in Computer Science--Total Semester Credit Hours = 36

### Admission Requirements

- A satisfactory score on the General Test (verbal and quantitative) of A. the Graduate Record Examination (GRE)
- A satisfactory grade point average on all prior advanced-level (junior, Β. senior, and graduate) work taken
- A demonstrated proficiency in the use of the English language. If a С. student's verbal score on the General Test of the GRE is below an acceptable minimum, the student must pass an English proficiency test.
- D. An undergraduate major in computer science or course work in computer science including the content of COSC 2315 and COSC 2336 or equivalent
- A student may enroll in a maximum of nine graduate credit hours E. without a satisfactory score on the General Test of the Graduate Record Examination (GRE).
- F. No more than nine semester credit hours of graduate credit earned prior to acceptance into the program, including transfer credit, may be applied to the MS degree. Students seeking admission to the MS program who have not yet satisfied admission criteria will be considered provisional. Provisional students must earn a grade of "B" or better in all work attempted. A provisional student who earns a grade of "C" or lower will be denied admission to the program.
- G. Approval by the departmental chair

Consideration is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community service, and family responsibilities.

### Prerequisites

In order to take a COSC course numbered 5326 or higher, a student must have satisfactorily completed six hours of calculus, COSC 2315 and COSC 2336 or equivalent

### Transfer of Credit

A student may transfer a maximum of 9 semester hours of graduate credit in which a grade of "B" or better has been earned from approved institutions. Transfer credit is subject to the approval of the student's advisor and departmental chair.

### Degree Requirements

Candidates for the Master of Science in Computer Science must satisfactorily complete one of the following options:

- Option 1—Thesis (36 SCH): This option requires graduate level course work in computer science including 12 semester hours of core courses and 6 hours of thesis.
- Option 2- Non-thesis (36 SCH): This option requires 36 hours of graduatelevel course work in computer science including core courses and COSC 5380, Research Project (3 hours).

The 12-semester-hour core requirement for the Master of Science in Computer Science is as follows:

COSC 5330: Operating Systems

COSC 5340: Programming Languages

COSC 5350: Data Communication and Networks

COSC 5360: Database Design

All candidates for the computer science degree must also meet the following requirements:

- A minimum grade point average of 3.0 on all graduate level work taken at UT Tyler. No course with a grade below "C" may be applied toward this degree.
- Students must complete each core course (COSC 5330, 5340, 5350, B. and 5360) with a grade of "B" or better.

- Satisfactory performance on a comprehensive written examination. In C. order to take the comprehensive exam, students must have completed the graduate core (COSC 5330, 5340, 5350, and 5360) with a grade of "B" or better.
- D. Students must successfully complete COSC 5380 or COSC 5395/5396. Students must have completed all of the core courses (COSC 5330, 5340, 5350, and 5360) with a grade of "B" or better in order to register for COSC 5380 or COSC 5395/5396.
- All COSC 5380 and COSC 5395/5396 students will have a committee E. composed of their advisor plus two additional Computer Science faculty members.

# ENGINEERING AND COMPUTER SCIENCE GRADUATE COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

### Civil Engineering (CENG)

### CENG 5109: Civil Engineering Seminar

Current and historic topics in various areas of civil engineering. Speakers may include off-campus experts, faculty and graduate students. Presentation of at least one seminar lecture is required.

### CENG 5312: Advanced Concrete Design

A second course in the design of reinforced concrete structures; advanced concepts in analysis and design of beams, columns and slabs; and an introduction to pre-stressed concrete. **Prerequisite:** CENG 3325 and CENG 4311 or equivalent or department chair approval.

### CENG 5313: Prestressed Concrete Design

Introduction to prestressed concrete; advanced concepts in analysis and design of prestressed beams, columns and slabs. **Prerequisite:** CENG 4311 or CI.

### CENG 5314: Advanced Structural Analysis

This course builds upon the material covered in CENG 3325 to develop a better understanding of structural behavior. Matrix analysis methods, including an introduction to finite elements are developed as the basis for modern, computer-based structural analysis. These and other advanced analytical techniques are used to analyze and design trusses, beams, and frames. Course-work involves extensive use of the computer as an analytical tool. Co-listed with CENG 4314. The graduate student will complete and additional project. **Prerequisite:** CENG 3325.

### CENG 5316: Advanced Steel Design

Advanced design of structural steel buildings emphasizing the relationship between design and response of the structural system; theoretical basis of building codes provisions; limit state and plastics design; beam-columns; built up sections, and composite sections; and connections. **Prerequisite:** CENG 3325 and CENG 4317.

### CENG 5318: Design Timber Structures

Introduction to the design of structural elements for timber buildings including tension and compression members, timber trusses, plywood decking, beam-columns, bolted and nailed connections, diaphragms, shear walls, and columns; design of timber elements by allowable stress and strength design methods; introduction to construction techniques, materials and terminology used in timber design. Co-listed with CENG 4318. The graduate student will complete an additional project. **Prerequisite:** MENG 3306 and CENG 3325.

### CENG 5322: Structural Masonry Design

Design of structural elements for masonry buildings including lintels, walls, shear walls, columns, pilasters, and retaining walls; design of reinforced elements of concrete or clay masonry by allowable stress and strength design methods; introduction to construction techniques, materials and terminology used in masonry. Co-listed with CENG 4322. The graduate student will complete an additional project. **Prerequisite:** CENG 3325 or equivalent or department chair approval.

### CENG 5324: Advanced Mechanics of Materials

Advanced topics in mechanics of materials, emphasizing analysis and design of load carrying members. Topics covered include: theories of failure, torsion of open and closed sections, unsymmetrical bending, curved beams, beams on elastic foundations, plane elasticity, and energy methods of analysis. The course will highlight approximations necessary to generate 'strength of materials' type solutions and address the impact of these approximations on the reliability and robustness of member design. **Prerequisite**: CENG 3306 or equivalent or department chair approval.

### CENG 5326 Structural Dynamics and Seismic Design

Analysis of linear structural systems subjected to time dependent loads, including free and forced vibration. Classical and numerical methods of solution, including lumped mass techniques, energy methods and introduction of matrix-formulation for dynamic problems. Introduction to earthquake analysis and design. **Prerequisite:** CENG 3325, CENG 2302, MATH 3305 or equivalent or department chair approval.

### CENG 5328: Structural Fire Behavior

Course provides an overview of fire effects on building structures. Topics covered include: fire chemistry, behavior and development, heat transfer terminology and processes, fire modeling, heat transfer modeling, material properties at elevated temperatures, effects of insulation, and effects of fire on structures. The Eurocode approach to structural design for fire will be introduced. Co-listed with CENG 4328. The graduate student will complete an additional project. **Prerequisite**: and CENG 3325, CHEM 1311/1111, CENG 4317 or CENG 4311 or equivalent or department chair approval.

### CENG 5330: Water Resources Planning and Management

Course covers principles of analysis, decision-making, and problem solving required in managing water resources under pressure from development, pollution, and climate change. It focuses on local and global problems, integrated water resources management, the water industry, water law, water security, natural systems protection, water use efficiency, and management tools. Co-listed with CENG 4330. The graduate student will complete an additional project. **Prerequisite**: CENG 3361 or equivalent or department chair approval.

# CENG 5333: Water Resources and Environmental Engineering Modeling

The course will familiarize students with several computer-based models for analyzing and designing a variety of water resources and environmental engineering applications. In addition to using existing software programs common throughout industry, students will also create their own simulation and optimization models using Visual Basic for Applications (VBA). **Prerequisite**: CENG 3361 or equivalent or department chair approval.

### CENG 5334: Storm Water Pollution Control

This course provides students with the requirements of facilities that are covered under the General of Multi-sector General (GMG) permit for storm water discharges, as well as municipal facilities covered under a Municipal Separate Stormwater Sewer System (MS4) permit and construction erosion control. The course addresses prevention of storm water pollution by teaching the Best Management Practices (BMPs) of controlling and working with storm water. **Prerequisite:** CI.

### CENG 5336: Construction Project Delivery Systems

A comprehensive coverage of the standard contracts between various agencies involved in construction. Analysis of traditional and current project delivery methodologies. **Prerequisite:** CENG 4336 or CI.

### CENG 5337: GPS and GIS Applications in Water Resources and Environmental Engineering

This course provides students with an introduction to the general concepts and applications of Global Positioning Systems and Geographic Information Systems through several project-based water resources and environmental engineering applications. Through work on various real-world problems, students develop insight with regard to spatial-based applications and the diversity of each technology's potential applications. The course will emphasize the use of both technologies as part of an integrated planning and decision making process. **Prerequisite:** CENG 3310 and CENG 2336 or equivalent or department chair approval.

### CENG 5338: Advanced Construction Project Management

This course will build on the information that is normally provided to students in the undergraduate construction management courses on planning and control of construction projects. The focus of this course will be quantitative tools that can be used in planning and controlling construction projects. Topics to be covered will include cash flow forecasting, site planning, site administration, risk analysis, contract documents, and contracts administration. Advanced planning tools such as line of balance, velocity diagrams, time-cost trade off, resource planning with applications to construction projects will also be discussed. **Prerequisites:** CENG 4331, CENG 4336, CENG 4338, ENGR 3301 ENGR 4306 or CI.

### CENG 5342: Analysis of Urban Water Systems

The course examines the behavior and interaction between all phases of urban water management: water supply, stormwater management, water distribution, and wastewater collection. Students learn how conservation practices and water sensitive urban design can reduce the amount of water required by an urban area. **Prerequisite**: MENG 3310 or equivalent course in open channel flow.

### CENG 5344: Water Engineering for International Development

This course addresses the design of small-scale, low cost systems for drinking water supply and wastewater disposal. Topics include surface water intakes, wells, storage tanks, water distribution systems, water quality testing, septic tanks, leach fields, and oxidation ponds. The course emphasizes on-site data collection methods, practical issues of design, and project sustainability. **Prerequisite**: CENG 3310 or equivalent or department chair approval.

### CENG 5347: Irrigation Water Control and Management

The objective of this course is to familiarize students with the fundamentals of water control and its application in flow regulation and measurement in openchannel irrigation systems. Students will learn how water is controlled in irrigation systems in order to satisfy crop water requirements. **Prerequisite**: MENG 3310 or course in open channel flow.

### CENG 5352: Transportation Planning

Theoretical foundations of transportation planning, analysis, and evaluation methods. Theory and application of aggregate and disaggregate models of land use, trip generation, and destination, mode, and route choice. Travel demand modeling and transportation network analysis for evaluation of system alternatives. **Prerequisites:** CENG 3351, ENGR 3301, ENGR 4306 or CI.

### CENG 5353: Operations Research and Advanced Mathematics

Introduction to operations research techniques and advanced mathematics for the analysis of engineering systems. Principles of problem identification and model formulation, linear and nonlinear programming, integer programming, multi-objective programming, dynamic programming and network programming. Foundations of the risk analysis, statistical modeling, and computer simulation. Topics also include advanced linear algebra, partial differential equations, and fourier analysis. **Prerequisite**: MATH 3351 or equivalent or department chair approval.

### CENG 5354: Urban Transportation Planning

Overview of the four-step urban transportation planning process, estimation of the travel demand models of trip generation, trip distribution, mode choice, and traffic assignment, and forecasting of travel patterns using travel demand models, state-of-the-art approaches and transportation network analysis for evaluation of system alternatives. Co-listed with CENG 4354. The graduate student will complete an additional project. **Prerequisite:** CENG 3351 or equivalent or department chair approval.

### CENG 5355: Transportation Systems Management and Operations

Foundations of transportation system management and operations, including arterial street systems and freeway systems. Principles of simulation of urban streets operations and traffic signal control and optimization, and freeway operations analysis and simulation using commercially available packages such as HCS+, Corsim, Synchro, Transyt-7F and Passer-V. Co-listed with CENG

4355. The graduate student will complete an additional project. **Prerequisite**: CENG 4351 or equivalent or department chair approval.

### CENG 5357: Public Transportation Engineering

Introduction to public transportation systems, including planning, design, management, and operations of mass transit systems in urban and rural areas. Principles of transit demand forecasting, optimal transit route network design, and driver and vehicle scheduling. **Prerequisite:** CENG 3351 and CENG 5353 or equivalent or department chair approval.

### CENG 5361: Traffic Flow Theory

In-depth traffic flow theory at micro-, meso-, and macroscopic levels. Fundamentals of traffic flow, traffic flow characteristics, statistical distributions of traffic flow parameter, traffic stream models, car following models, continuum flow models, shock wave analysis, queuing analysis, traffic flow models for intersections, network flow models and control, traffic simulation. **Prerequisite:** CENG 43510r equivalent or department chair approval.

### CENG 5363: Transportation Network Analysis

Introduction to planning and optimization techniques for the analysis of transportation networks. Principles of precise algorithms for finding transport network equilibrium flows and applications that relate to these flows. Topics include routing algorithms, user equilibrium traffic assignments, system optimal, stochastic user equilibrium, traffic paradox, origin-destination matrix estimation, and transportation network design. **Prerequisite:** CENG 4351, CENG 5354 or equivalent or department chair approval.

### CENG 5365: Dynamic Transportation Network Modeling

Introduction to the optimization and modeling methodologies required for the analysis of dynamic and stochastic transportation networks. Principles of dynamic network equilibrium via simulation and mathematical programming approaches. Topics include time-dependent routing algorithms, analytical-, cell transmission- and simulation-based dynamic traffic assignment, network paradoxes, network reliability, dynamic network design, and some stochastic extensions. **Prerequisite:** CENG 5363 and CI.

### CENG 5370: Environmental Pollution Sources and Control

This course is designed to give students the skills to recognize pollution sources and methods of control for reducing adverse effects on the ambient environment. **Prerequisite**: CENG 3371 or equivalent or department chair approval.

### CENG 5373: Environmental Management

Federal and State environmental regulations; techniques for environmental control; risk assessment and management strategies; characterization of hazardous materials, spill control strategies and clean-up techniques. **Prerequisite**: CENG 3371 or equivalent or department chair approval.

### CENG 5376: Indoor Environmental Quality

Graduate level course in indoor air quality is designed to address the issues associated with maintaining a safe and healthy environment in occupied structures; handling a range of issues like health, comfort effects, physiological thresholds, and ventilation measurement. Students also learn the fundamentals of HVAC and its role in IEQ and occupant comfort. **Prerequisite**: department chair approval.

### CENG 5381: Foundation Design

Relationship of local geology to soil formations, groundwater, planning of site investigation, sampling procedures, and determination of soil parameters. Analysis and design of shallow foundations, deep foundations, and earth retaining structures. **Prerequisite:** CENG 3336

### CENG 5382: Geotechnical Earthquake Engineering

Introduction to geotechnical earthquake engineering. Topics include earthquake magnitude and intensity, liquefaction and ground failure, design ground motions, elementary dynamics of structures, response spectra, and building code provisions. **Prerequisites:** CENG 3336 and CENG 2302.

### CENG 5383: Soil Improvement and Stabilization

Introduction to soil improvement and stabilization. Topics include over excavation/replacement, light-weight fill, compaction, admixture stabilization, preloading, vertical drains, dynamic compaction, granular columns, deep soil mixing, grouting, ground anchor. **Prerequisites:** CENG 3336.

### CENG 5387: Air Pollution Control Design

The course covers the fundamentals and impact of air pollution on environmental quality and introduces the process of air monitoring and the design of air monitoring surveys. The course will also introduce the student to contaminant removal devices for specific contaminants, atmospheric dispersion of contaminants, and the process of air quality planning and modeling. **Prerequisite:** CENG 5370 and CENG 5373.

### CENG 5393: Advanced Design Project

Graduate capstone design project in an area of civil engineering under the direction of graduate civil engineering faculty. A professional quality design project report is required. **CR/NC Only. Prerequisite.** Consent of advisor.

### CENG 5395: Thesis

Selection of a research topic and development of a thesis plan. **CR/NC Only. Prerequisite:** Consent of advisor.

#### CENG 5396: Thesis

Completion and approval of thesis. **CR/NC Only. Co-requisite or Prerequisite:** CENG 5395.

### CENG 5150, 5250, 5350: Advanced Topics in Civil Engineering

Structured study of civil engineering topics not found in other courses. May be repeated for a maximum of six credits if different topics are covered. **Prerequisite:** CI.

### CENG 5199, 5299, 5399: Independent Study

Independent study in a specific area of civil engineering not covered by organized graduate courses. A maximum of three credit hours may be applied toward a graduate degree. **Prerequisite:** Consent of advisor and department chair.

### Computer Science (COSC)

### COSC 5325: Workshop in Computer Science

Designed to provide instruction for groups who wish to study current specific areas in computer science. This course may be repeated once for credit when content changes. MAY NOT BE USED FOR THE MS IN COSC DEGREE.

### COSC 5326: UNIX Programming Environment

This course will cover shell programming, filters, I/O programming, program development, and document preparation. Special attention will be given to UNIX systems programming. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5330: Operating Systems

Analysis of operating systems software for computing systems, and resource management procedures and techniques used in all types of computing environments. Topics include processes, synchronization, scheduling algorithms, memory management, security, device management, deadlocks, and file systems. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5336: Local Area Networks

LAN architectures and media. In addition, course will cover inter-networking, performance, and design issues. Special attention will be paid to IEEE 802 and all current systems. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5340: Programming Languages

Theoretical aspects of programming languages, design and implementation criteria, analysis and classification of programming languages. Topics include: language design principles; translation and the formalization of syntax; generalization of primitive and abstract data types; sequence, data, and subprogram control; and language paradigms such as imperative, object-oriented, functional, logic, concurrent, and visual. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5341: Computer Security

This course will cover cryptography, network protocols and their application, including an overview of symmetric and asymmetric cryptographic algorithms and their use for authentication, e-mail, and e-commerce. Network security protocols covered with include Kerberos, SET, and SMIME. Prerequisites: COSC 2315, 2336

### COSC 5342: Computer Security Management

This course will cover the techniques used to security and manage computers, computer networks, and enterprise computer systems. Topics covered will include security policies, computer network management, and disaster recovery. The course will cover all of the topics listed in CNSSI-4012. **Prerequisite**: COSC 4325

### COSC 5345: Computer Graphics

An introduction to computer graphics stressing interactive graphics. Basic theory and applications will be covered. GKS graphics and an introduction to 3-D graphics will be given. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5346: Expert Systems

Basic concepts for building expert systems, architecture of expert systems, the knowledge acquisition process, languages and tools for building expert systems, evaluation of expert systems, issues and case studies, and practices in the design and evaluation of expert systems. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5350: Data Communication and Networks

An introduction to data communications and networking. Covers the architecture, design and implementation of computer networks. Topics include data transmission, switching, protocols and security. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5351: Computer-Human Communications

Study of computer interfaces with a special emphasis on highly interactive interfaces. A complete study of the X Windows Architecture including hardware, communication protocols, and programming. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5352: Client/Server Architectures

Design and implementation of client/server systems. Topics include: network protocols, OLE DGE, CORBA, server design and implementation and tightly integrated message systems. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5354: Parallel and Supercomputing

Methods for creating and implementing parallel algorithms. Parallel programming, programming models, and architectures of vectorized supercomputers, shared memory, and distributed architectures. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5360: Database Design

An introduction to database systems and design. Covers relational, hierarchical, and logical database models. Topics include database modeling, design, security, management, implementation and integration. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5361: Digital Image Processing

Basic concepts in Digital Image Processing. Topics include two-dimensional transforms, filtering, enhancement, restoration, edge detection, segmentation, texture, matching, image representation, feature detection, and their application. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5362: Pattern Recognition

Various stages in a recognition system and their design will be discussed. Topics include: preprocessing, feature extraction, recognition, knowledge base, and associative storage. Algorithms and implementation of these stages will be discussed. Practical applications such as character recognition, satellite image analysis, MRI data analysis, and other biomedical applications will be discussed. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5365: Artificial Intelligence

Introduction to the basic concepts of artificial intelligence. Topics covered will include knowledge representation, A.I. programming, learning, and neural nets. **Prerequisites**: COSC 2315, COSC 2336.

### COSC 5370: Software Engineering

Program development techniques with structured methodologies. Top-down development, modeling tools, structured programming, programming style, program testing and debugging. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5371: Data Mining

Study of the concepts and techniques of data mining, or knowledge discovery in databases. The automated or convenient extraction of patterns representing knowledge implicitly stored in large databases, data warehouses, and other massive information repositories. **Prerequisite:** COSC 5360.

### COSC 5374: Software Architecture

Concepts and methodologies for the systematic analysis, development, evolution, and reuse of software architectures. Understanding the elements of software architectures including components, connectors, styles, patterns, and constraints. Developing software architectures from functional requirements. Evaluation and selection of alternative software architectures based on nonfunctional requirements. State of the practice and art. **Prerequisite:** COSC 2336 or equivalent.

### COSC 5375: Advanced Database Design

Database design issues including: query processing, interpretation, optimization, and methods for implementing and optimizing logic queries. Knowledge databases, distributed databases, and object-oriented databases. **Prerequisites:** COSC 5360.

### COSC 5376: Fundamentals of Data Warehouses

This course provides an overview of the fundamentals of data warehousing including planning, designing, building, populating, and maintaining a successful data warehouse. Specific topics covered include the logical design of a data warehouse, data warehousing architecture, extract-transform-load processing, a comparison of OLAP and OLTP and query processing utilizing multidimensional views of data. **Prerequisite:** COSC 5360.

# COSC 5377: Fundamentals of Modeling and Distributed Simulation of Complex Systems

This course aims to teach the fundamentals of modeling, simulation, distributed simulation, and large-scale asynchronous distributed simulation of real systems on parallel processors. Examples from the real world include CAD of digital systems, IVHS transportation, military command and control, medical networks, banking networks, and asynchronous transfer mode (ATM) networks. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5378: Applied Computer Graphics

This graduate level course will begin with the basic theory of computational graphics, describe important applications, especially in the fields of medicine and GIS, and require students to complete a substantial applied project utilizing graphical tools and packages that are widely used in industry and the computer graphics community. The basic theory will build on mathematical foundation and focus on geometric primitives, color models, coordinate systems, transformation of object views in 2D and 3D, projection, illumination, reflection, shading, and ray tracing. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5379: Advances in Remote Sensing and GIS Analysis

This course will bring together recent developments in remote sensing and GIS analysis with a particular emphasis on software development techniques. Topics will include GIS data models, software algorithms for data storage, and analysis. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5380: Research Project

Faculty directed independent study of a computer science problem, subject, or research topic relevant to the student's current or anticipated career field. A professional quality computer science project report and an oral presentation of the research project are required. A student may not begin work on the project before completing the graduate core. After starting the project, students must register for at least three credit hours of COSC 5380 each semester until the project is completed and approved. **CR/NC Only. Prerequisites:** COSC 5330, 5340, 5350, and 5360.

### COSC 5381: Advanced UNIX O/S Design

This advanced graduate course aims to expose students to practical challenges in operating systems design today, especially securing it from threats from viruses and worms, and intelligent attacks. The course will combine lectures with a significant project and feature extensive analysis of case studies. **Prerequisites:** COSC 5330 and (COSC 5326 or instructor permission).

### COSC 5382: Comprehensive Internet Security

This course will introduce the student to the topics of computer security, network security, and Web security, in a coherent manner. It will give detailed coverage of the theory, deployment and management of high security Web applications. Considerable attention will be paid to methods of Web site authentication, authorization, privacy and confidentiality. As a part of the course, students will build a highly secure Web site project. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5390: Topics in Computer Science

This course can be taken up to two times for credit when content changes. **Prerequisites:** COSC 2315, COSC 2336.

### COSC 5391: Topics in Distributed Systems

Selected topics in distributed systems, computer networks, and distributed databases. Design of local area networks and multiple network systems, database programming languages, and operating systems for distributed systems. **Prerequisite:** COSC 5350.

### COSC 5395: Thesis

Selection of a research topic and development of a thesis plan. **CR/NC Only. Prerequisites:** COSC 5330, 5340, 5350, and 5360.

### COSC 5396: Thesis

Completion and approval of thesis. **Prerequisite:** COSC 5395 or concurrent enrollment. **CR/NC Only.** 

### COSC 5199-5399: Independent Study

Independent study in specific areas of computer science not covered by organized graduate courses. A maximum of 6 credit hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

### Electrical Engineering (EENG)

### EENG 5301: Wireless Communications and Networks

Introduction to Wireless Communications and Networks: transmission fundamentals, LANs, MANs, WANs, switching, ATM, TCP/IP; Wireless Communications: antennas, propagation, signal encoding, spread spectrum, error control; Wireless Networking: satellite communications, cellular networks, analog, TDMA, CDMA, cordless systems, wireless local loop, mobile IP, WAP; Wireless LANS: infrared, spread spectrum, microwave, IEEE 802.11, Bluetooth. **Prerequisite:** EENG 4312 or CI. Extended

### EENG 5303: Computational Methods in Electromagnetics

Numerical methods for the solution of boundary value problems in electrical engineering applications: the finite difference method (FDM), the charge simulation method (CSM), the method of moments (MOM) and the boundary element method (BEM). Applications include the simulation and modeling of electrostatic, magnetostatic, electromagnetic problems, active shielding of power frequency magnetic fields, optimization of high voltage electrodes and heat transfer problems. Three hours of lecture per week. **Prerequisites:** EENG 3303, MATH 3203 and MATH 3305 or CI.

### EENG 5304: Computer-Aided Power Systems Analysis

Modeling of electric power systems. Fault Analysis, symmetrical components, sequence networks, load flow, stability studies. Application of computer methods to power system analysis. Machine dynamics and transients in power system analysis. Three hours of lecture per week. **Prerequisite:** EENG 4310 and MATH 3203 or MATH 3315 or CI.

### EENG 5307: Introduction to Random Processes

Review of probability, transformation of random variables, random processes, correlation function and power spectral density, system response to noise, optimal processing. Three hours of lecture per week. **Prerequisite:** EENG 4312 or CI.

### EENG 5308: Digital Signal Processing

Introduction to modern digital processing. Basic building blocks, the basic math (Z-Transforms, Fourier Transforms, Fast Fourier Transforms), deterministic processing, FIR and IIR filters, polyphase filtering, introduction

to statistical filtering, basic power spectral density. Three hours of lecture per week. **Prerequisite**: ENGR 5307 or CI.

### EENG 5309: Statistical Signal Processing

Review of digital signal processing concepts, wavelets, autoregressive modeling, Wiener filtering, adaptive filtering, power spectral estimation, introduction to advanced topics: higher order moments and spectra. Three hours of lecture per week. **Prerequisite:** ENGR 5308 or CI.

### EENG 5310: Solid State Devices

Charge transport in semiconductors; Standard approaches for diffusion of dopants and lithography; Development of I-V models for solar cells, diodes, bipolar junction and field effect transistors; independent computer project. **Prerequisites:** EENG 3303 and EENG 4309, or prior coursework in electromagnetic fields and electronics at the undergraduate level.

### EENG 5316: Optical Fiber Communication

An introduction to the analysis and design of fiber optic communication systems. Electromagnetic wave propagation treatment in optical fibers leading to single and multimode descriptions. Standard methods for measuring fiber parameters, overall communication system performance including sources and receivers. **Prerequisites:** EENG 3303 and EENG 4312 or prior coursework at the undergraduate level in electromagnetic fields and communications theory.

### EENG 5330: Communication Systems Engineering

Review of the principles of amplitude and frequency modulation. The main focus for the course will be the reliability issues for digital communication systems. This will include but is not limited to information theory and coding theory. Typical base-band and pass-band modulation schemes will be analyzed in terms of their Bit Error Rate performance. Examples taken from telephone line modems will be discussed. Link budget analysis appropriate for satellite and fiber-optics communication systems will also be covered. Three hours of lecture per week. **Prerequisite:** EENG 4312 or equivalent.

### EENG 5333: Power Systems Planning and Operation

Economic dispatch; unit commitment; power control; power system planning and supply costs; demand forecast; long-range distribution system planning; outage cost; shadow pricing and simulation of electricity markets. Three hours of lecture per week. **Prerequisite:** EENG 4319 or CI.

### EENG 5336: Real Time Systems

Basic Real-Time Concepts; Computer Hardware; Languages; Real-Time Kernels; Intertask Communication and Synchronization; Real-Time Memory Management; The Software Life Cycle; System Performance Analysis and Optimization; Reliability, Testing, and Fault Tolerance; Hardware/Software Integration; Integrated lab experiments with state-of-the-art real-time hardware and software tools. Graduate level term project or paper. **Prerequisites:** EENG 3307 or CI

### EENG 5337: Semiconductor Devices

This course is an extension of models and principles of semiconductors developed in a prior introductory level class. The instructor can select from a number of advanced topics. These can include but are not limited to concentrated coverage for device processing, electrical characterization for solar cells, four terminal devices and modeling organic semiconductor based diodes and transistors **Prerequisites:** EENG 4330 or CI.

### EENG 5140-5340: Advanced Topic in Electrical Engineering

Advanced studies in Electrical Engineering in topics not covered in regularly scheduled graduate courses. May be repeated as content changes. A maximum of nine (9) hours may be used for graduate credit on the degree plan if topics vary. **Prerequisite:** Consent of Instructor.

### EENG 5199-5399: Independent Study

Independent study in a specific advanced area of engineering not covered by organized graduate courses. May be repeated as content changes. A maximum of six credits of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of instructor and department chair.

### EENG 5395: Thesis I

Selection of a research topic and development of a thesis plan. CR/NC Only. **Prerequisite:** Consent of advisor.

### EENG 5396: Thesis II

Completion and approval of thesis. CR/NC Only. **Prerequisite or co-requisite:** EENG 5395.

### Mechanical Engineering (MENG)

### MENG 5306: Intermediate Solid Mechanics

Concepts from the theory of elasticity and topics from advanced mechanics of materials,

including exact solutions for bending and torsion, axisymmetrically loaded members, and

thin plates. Prerequisite: MENG 3306 or equivalent.

### MENG 5318: Manufacturing Systems

A study of modern production practices and manufacturing systems including operations and materials planning, inventory control methods, production scheduling, layout of manufacturing cells, machine monitoring, and automation. Three hours of lecture per week. **Prerequisite:** MENG 3319 or CI.

### MENG 5324: Engineering Project Management

Project planning; task definition; work breakdown structure; task sequencing, Gantt charts; cost analysis; resource allocation; project tracking; completion projections. Use of commercial project management computer codes. Three hours of lecture per week with integrated computer assignments. **Prerequisite:** Graduate standing in Engineering and CI.

### MENG 5325: Design of Turbomachinery

Application of the principles of thermodynamics and fluid mechanics to the performance analysis and design of pumps, blowers, centrifugal compressors, and turbines. Three hours of lecture per week. **Prerequisite:** MENG 3304 and MENG 4313 or CI.

#### MENG 5326: Vibration Analysis of Rotating Machinery

Instrumentation, measurement techniques, and analytical techniques used in monitoring, diagnosing and evaluating the vibration of rotating machines in industrial environments. Three hours of lecture per week with integrated laboratory. **Prerequisite:** MENG 4317 or CI.

### MENG 5327: Quality Control and Engineering Statistics

Statistical methods and theory applicable to problems of product and process development and process monitoring; control charts, feedback control; experimental techniques and analysis in robust product design and process improvement; sampling, elements of six-sigma methodology. **Prerequisite:** MATH 3351 or CI.

### MENG 5328: Finite Element Analysis

The mathematical principles of the finite element method applied to the solution of field problems in mechanical engineering. Solutions implemented using current commercial computer application codes. Three hours of lecture per week with integrated computer lab exercises. **Prerequisite:** CI.

### MENG 5329: Advanced Production Engineering

Analysis and computer simulation of advanced topics in manufacturing. Topics include servo positioning systems, dynamics of the metal cutting process, machine tool chatter, stress and forces in metal forming and heat transfer in welding. **Prerequisite:** MENG 3319 or CI.

### MENG 5331: Constraints Management

An introduction to the Theory of Constraints and its methodology for finding factors that block improvement in simple and complex systems, for identifying effective breakthrough solutions, and for developing improvements in manufacturing systems and engineering projects. Three hours of lecture per week. **Prerequisite:** CI.

### MENG 5332: New Product Development

The new product development process and the role of multidisciplinary teams in the product development cycle. The integration of business concepts with engineering methods such as quality function deployment, concept generation and selection, prototyping and FMEA. Three hours of lecture per week. **Prerequisite:** CI.

### MENG 5336: Intermediate Fluid Mechanics

Differential equations of fluid flow, mathematical modeling of Newtonian and non-Newtonian fluids, boundary layer theory, numerical modeling of turbulent flow, and an introduction to compressible flow. **Prerequisite**: MENG 3310 or equivalent undergraduate fluid mechanics course.

### MENG 5337: Viscous Flow

Fundamental laws of motion for a viscous fluid; classical solution of the Navier-Stokes equations; inviscid flow solutions; laminar boundary layers; stability criterion. **Prerequisite**: MENG 3310 or equivalent undergraduate fluid mechanics course.

### MENG 5338: Conduction Heat Transfer

Analytical methods in conduction; Bessel functions, separation of variables, Laplace transforms, superposition, oscillating solutions; computer methods; finite differences, finite elements. **Prerequisite**: MENG 3316 or equivalent undergraduate heat transfer course.

### MENG 5339: Convection Heat Transfer

Development of formulations governing forced, buoyancy induced, and phase change transport and convective motions with emphasis on the underlying conservation principles. **Prerequisite**: MENG 3316 and MENG 3310 or equivalent undergraduate heat transfer and fluid mechanics courses.

### MENG 5140-5340: Advanced Topics in Mechanical Engineering

Advanced studies in topics not covered in regularly scheduled graduate courses. May be repeated as content changes. A maximum of nine credit hours may be used for graduate credit on the degree plan. **Prerequisite**: CI.

### MENG 5344: System Dynamics

Mathematical modeling of dynamic mechanical engineering systems. Analytic and numerical simulation. Effects of physical characteristics of system elements on system design and dynamic behavior. **Prerequisites:** MENG 3306, 3310 and 3301.

### MENG 5395: Thesis

Completion and approval of thesis. Prerequisite: Advisor approval.

### MENG 5199-5399: Independent Study

Independent study in specific areas of Mechanical Engineering not covered by organized graduate courses. A maximum of six credit hours may be used for graduate credit on the MSME degree. One to three hours of course meeting per week. **Prerequisite**: CI.

### MENG 5350, 5650: Engineering Project

Faculty directed independent study that culminates in a professional quality Engineering Report on a significant design or analysis project. May be repeated once for credit. CR/NC only. **Prerequisite**: 12 hours of graduate coursework and CI.

# GRADUATE COLLEGE OF NURSING AND HEALTH SCIENCES

### Dr. Linda K. Klotz, Dean

The College of Nursing and Health Sciences offers the Master of Science in Nursing degree in nursing education or nurse practitioner, the coordinated dual Master of Science in Nursing and Master of Business Administration, Master of Education in Health and Kinesiology, Master of Science in Clinical Exercise Physiology, Master of Science in Health Sciences, and Master of Science in Kinesiology. Health studies is also an optional field in the Master of Science in Interdisciplinary Studies (M.S.I.S.) Degree Program.

### Department of Health and Kinesiology

### Dr. Scott Marzilli, Chair

The Department of Health and Kinesiology offers programs leading to four graduate degrees: Master of Education in Health and Kinesiology, Master of Science in Clinical Exercise Physiology, Master of Science in Health Studies, and Master of Science in Kinesiology. The mission of each of these degree programs and admission and curriculum requirements are described below. Health Studies is also an optional field in the Master of Science Degree Program in Interdisciplinary Studies (M.S.I.S.). The Graduate Policies and Programs section of this catalog presents information and University requirements related to graduate studies in general, and information specifically related to the M.S.I.S. Degree.

The Department of Health and Kinesiology is a member of a consortium consisting of six University of Texas institutions and the University of Texas TeleCampus, which provides courses via the Internet that may be used to earn a master's degree. The M.Ed. Degree in Health and Kinesiology may be earned entirely via this Internet-based delivery. Individual online courses may also be used to fulfill requirements of other degrees, with advisor approval. Additional information about the online courses is given below.

For additional information about any programs of the Department of Health and Kinesiology, contact the Department (903-566-7031; www.uttyler.edu/hkdept).

### Admission Requirements

In addition to the general graduate admission requirements of the University, students applying for admission to a specific degree program in the Department of Health and Kinesiology (the M.Ed. Degree in Health and Kinesiology, the M.S. Degree in Clinical Exercise Physiology, the M.S. Degree in Kinesiology or the M.S. Degree in Health Sciences) or to the M.S.I.S. Degree with health studies as the first field of study, must meet the following Departmental requirements for:

#### Full Graduate Admission

- A. Submit a letter of intent with accompanying Statement of Goals to the Graduate Coordinator of the Department of Health and Kinesiology;
- B. Submit three (3) Department of Health and Kinesiology Reference Forms, completed by individuals in professional positions who can validly comment on the applicant's suitability for graduate studies in general and study in the intended field in particular to the Graduate Coordinator of the Department of Health and Kinesiology;
- C. Submit scores from the General Test of the Graduate Records Exam (GRE) to the Graduate Coordinator of the Department of Health and Kinesiology;
- D. Meet at least one of the following two criteria:
  - 1. Have earned a minimum grade point average of 3.0 on a 4 point scale on the last 60 hours of upper division coursework leading to the baccalaureate degree from an accredited institution;
  - 2. Have earned a graduate degree from an accredited institution

E. Consideration for admission is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study; socioeconomic background; and involvement and level of responsibility related to other factors, including extracurricular activities, employment, community service, first generation of family to graduate from an undergraduate program, family responsibility for raising children, multilingual proficiency, or geographic region of residence.

### Conditional Graduate Admission

This status is granted to applicants who have not satisfied, at the time of enrollment, the Department of Health and Kinesiology requirements for Full Graduate Admission. Consideration for Conditional Graduate Admission will be based on the following Departmental criteria:

- A. Graduate Record Examination (GRE) scores. Successful applicants usually have a combined score on the verbal and quantitative portions of the GRE of at least 1000;
- B. The applicant's demonstrated commitment to his or her chosen field of study as evidenced in the applicant's letter of intent and statement of goals;
- C. The applicant's ability to succeed in the chosen Graduate Program as evidenced by the applicant's three (3) Department of Health and Kinesiology Reference Forms and accompanying letters of recommendation;
- D. Consideration is also given to one or more of the following: the applicant's socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in the matters including extracurricular activities, employment, community service and family responsibilities.

Conditionally admitted students must maintain a grade point average of at least 3.0 during their first nine (9) hours of graduate coursework taught by full-time Departmental Faculty and meet any other conditions set by the Department before being granted Full Graduate Admission. According to University policy, a student seeking a graduate degree may take no more than nine hours of graduate courses before being fully admitted to a graduate degree program. An exception to this nine (9) hour limit may be granted to a conditionally admitted student pursuing the M.S. Degree in Clinical Exercise Physiology, to allow the student to enroll in the twelve (12) hours of credit normally required in the first semester of the Clinical Exercise Physiology Program. Students Conditionally Admitted that do not achieve the requirements of their admission must discontinue the specific degree program.

#### **Provisional Admission**

This status is granted to those whose application file lacks required items such as transcripts, official reports of tests scores, letter of intent, reference forms, etc. An applicant who has been admitted provisionally must contact the Department Chair to review specific Departmental entrance requirements before being allowed to enroll. Provisional Admission status allows the applicant to enroll for only one semester with a maximum of nine (9) graduate hours (with the same exception of admission to the M.S. Degree in Clinical Exercise Physiology noted above). When the reason for a student's provisional admission status has been removed, the student's status will be changed to full or conditional admission. Provisional Admission will not be continued beyond one semester.

With the exception related to the Clinical Exercise Physiology Program noted above, if a student completes more than nine (9) hours before being admitted to a graduate degree program in the Department of Health and Kinesiology, no more than nine (9) of those hours may be counted toward degree requirements.

#### Departmental Application Packet

It is highly recommended that all application materials be sent to the Department of Health and Kinesiology within one application packet. This process will expedite the Graduate Admission decision by ensuring all required materials are received at one time. The following items are required within the applicant's Departmental Application Packet:

- Letter of intent
- Statement of goals
- Three sealed reference forms and/or accompanying letters of reference

Although official copies of GRE scores and transcripts must be sent directly to The University of Texas at Tyler's Office of Graduate Admissions, it is recommended to also include copies of GRE scores and transcripts within the Departmental Application Packet.

Once the Departmental Application Packet is received, a confirmation letter will be sent to the applicant confirming receipt of all materials. The review of the graduate application will not start until the Department receives all required application materials.

#### Contact Information

Inquires about the application or admission process should be submitted to: Graduate Coordinator, Department of Health and Kinesiology, The University of Texas at Tyler, 3900 University Blvd., Tyler, TX 75799; phone: 903-566-7031.

To ensure high quality student engagement and active learning within our graduate program, The Department of Health and Kinesiology accepts only a limited number of students each academic year. Therefore, some applicants who exceed minimum requirements for admission may not be accepted.

For details about any of the above, see the Department's website (www.uttyler.edu/hkdept) or contact the Department. In addition to the items that must be submitted, an applicant may submit other evidence related to potential for success in the requested graduate degree program. To be guaranteed consideration, all application materials must be received in the Department of Health and Kinesiology at least three weeks before the first day of the semester of intended enrollment.

### Master of Education in Health and Kinesiology Total Semester Credit Hours = 36

The mission of the program leading to the Master of Education (M.Ed.) Degree in Health and Kinesiology is to prepare for career advancement in teaching in areas related to health, kinesiology or sport. Specific objectives of the program are:

- A. To critically read and discuss published research related to health and kinesiology.
- B. To discuss in writing issues related to health and kinesiology, identifying, analyzing and defending different viewpoints.
- C. To apply theoretical concepts from the health and kinesiology research literature to professional practice.
- D. To use computer technology to manage data, access information, and communicate effectively.

The program requires satisfactory completion of 36 semester hours of courses and a comprehensive examination. The curriculum consists of 18 hours of foundation courses and 18 hours of elective courses consistent with career objectives and selected with advisor approval. The M.Ed. Degree in Health and Kinesiology may be earned entirely via courses offered on the Internet, as described further below.

### Curriculum

- 1. Foundation Courses (18 semester hours)
  - HECC 5303: Research Design or EDUC 5301 Research Methods for the Behavioral Sciences or KINO 6372: Research Methods
  - HECC 5317: Biometric Methods or KINO 6370 Intro to Statistics HECC 5370: Ethics
  - HECC 5391: Practicum in Health and Kinesiology

- PYED 5352: Topics in Instructional Styles or EDUC 5303: Applied Learning Theories
- or KINO 6352: Analysis of Teaching and Coaching Behavior PYED 5354: Topics in Curriculum or EDUC 5352: Curriculum Foundations
  - or KINO 6350: Curricular Innovations
- (Note: "KINO" is a generic prefix for online courses offered via the University of Texas TeleCampus as part of the collaborative Kinesiology Online Program, which is described further below.)
- 2. Electives (18 semester hours)

With advisor approval the student elects 18 semester hours of courses consistent with educational and career objectives. These should normally be from the areas of kinesiology, health and/or education.

### Comprehensive Examination

The comprehensive exam must be written during the semester prior to the semester of planned graduation, as indicated on the student's graduation application form. This exam will focus on the general objectives of the M.Ed. Degree in Health and Kinesiology (stated above). A requirement for graduation and awarding of the degree is satisfactory performance on the comprehensive exam, as evaluated by faculty in the Department. If performance is evaluated as unsatisfactory, remedial activities may be assigned by the student's academic advisor (possibly including repetition of one or more courses) and a second attempt to write the comprehensive exam may be given. The student is advised to discuss the comprehensive exam with the academic advisor and other faculty early in the degree program, as well as periodically throughout the program.

### Online Master's Degree

The UT Tyler Department of Health and Kinesiology collaborates with the University of Texas TeleCampus and five other University of Texas institutions (Arlington-UTA; El Paso-UTEP; Pan American-UTPA; Permian Basin-UTPB; and San Antonio-UTSA) to provide Internet-based courses that enable students to earn a master's degree entirely via online distance learning. This collaborative program is known as the Kinesiology Online (KINO) Master's Degree Program. An individual may earn UT Tyler's M.Ed. Degree in Health and Kinesiology entirely via online courses offered as part of this program. Application and admission to the M.Ed. Program and degree requirements are the same regardless of whether the curriculum is completed entirely online, entirely on campus, or with a combination of online and on-campus classes. The process of registration for online courses may be different from registration for other courses, and fees for online courses may be more than for on-campus courses. To earn the M.Ed. Degree in Health and Kinesiology via the Kinesiology Online Program, a student must complete at least 12 hours of courses taught by UT Tyler faculty.

Following is a list of courses that are periodically available online. Some are UT Tyler courses and some are offered by other University of Texas institutions that are part of the Kinesiology Online Master's Degree Program. These courses may be used to fulfill requirements of UT Tyler's M.Ed. Degree in Health and Kinesiology, or requirements of other degree programs with consent of the student's advisor. Descriptions of these online courses are listed under Kinesiology Online Program in the Course Description Section of this catalog.

- KINO 6310: Exercise Physiology KINO 6312: Training and Conditioning Methods KINO 6312: Training and Conditioning Methods KINO 6312: Applied Biomechanics KINO 6320: Sport Psychology KINO 6322: Applied Sport Psychology KINO 6323: Exercise Psychology KINO 6326: Motor Learning and Control KINO 6330: Sport and Society KINO 6340: History and Philosophy KINO 6340: History and Philosophy KINO 6342: Ethics KINO 6342: Ethics KINO 6348: The U.S. Health System's Origins and Functions KINO 6350: Curricular Innovations KINO 6352: Analysis of Teaching and Coaching Behavior KINO 6354: Early Childhood Physical Activity
- KINO 6360: Administration of Physical Education and Athletic Programs

### GRADUATE COLLEGE OF NURSING AND HEALTH SCIENCES

KINO 6370: Introduction to Statistics KINO 6372: Research Methods KINO 6380: Nutrition, Health and Disease KINO 6382: Sports Nutrition

One may obtain more information about the Kinesiology Online Program or individual online classes from the UT TeleCampus (1-888-TEXAS16; www.telecampus.utsystem.edu) or the Department of Health and Kinesiology (903-566-7031; www.uttyler.edu/hkdept). The Handbook of Operating Procedures for the Kinesiology Online Program may be found at

www.TeleCampus.utsystem.edu/index.cfm/4,623,c,html/KINO%20HOOP,%20rev.%208-04.doc.

### Master of Science in Clinical Exercise Physiology Total Semester Credit Hours = 43

The mission of the M.S. Degree Program in Clinical Exercise Physiology (CEP) is to prepare students to successfully complete the Clinical Exercise Physiology Registry (RCEP) Exam of the American College of Sports Medicine (ACSM). The program provides a thorough theoretical base and extensive applied and clinical experience for the person who intends to pursue a career related to exercise in a clinical setting. The program is designed to develop competencies in a broad range of areas, including exercise testing and evaluation, exercise prescription, implementation and administration of preventive and rehabilitative exercise programs, and education and health promotion. The curriculum includes activities in various clinical facilities to provide experiences with individuals with a wide range of diseases and disorders.

Because they interact with patients and others in clinical settings, CEP students are subject to policies related to criminal background checks, current immunizations, TB screening, liability insurance, dress codes and uniforms, current CPR certification, and having means of transportation. Students will be responsible for costs that may be associated with these policies. An up-to-date list of these policies and costs may be obtained from the Department or the Department's Web site.

In addition to meeting academic requirements assessed by traditional methods (e.g., exams, written reports), the successful CEP student will be assessed and must meet minimal criteria in the following areas, as applied to effective performance in the clinical setting: (a) Critical thinking, (b) interpersonal skills, (c) communication skills, (d) physical mobility, (e) motor skills, and (f) hearing, vision and tactile acuity. More details about these criteria may be obtained from the Department or the Department's Web site. Students must begin the M.S.-CEP Program in the fall semester.

Awarding of the M.S.-CEP Degree is contingent upon taking the ACSM RCEP Exam, ordinarily in the latter part of the student's last semester of the Program. The student will be responsible for costs associated with taking this exam. Awarding of the Degree is also contingent upon satisfactory completion of a portfolio related to the student's clinical experiences in the CEP Program.

### Curriculum

The regular curriculum of the Clinical Exercise Physiology Degree consists of the following courses, listed according to the typical schedule.

#### Fall 1

CEPH 5213/5214: Diagnostic Tests & Exercise Prescription/Laboratory CEPH 5223/5224: Cardiorespiratory Exercise Physiology/Laboratory KINE 5216/5217: Exercise Metabolism/Laboratory

#### Spring 1

ALHS 5104: Exercise-Drug Interactions KINE 5304: Exercise Psychology KINE 5219/5220: Exercise for Special Populations I/Lab CEPH 5221/5222: Neuromuscular Exercise Physiology/Laboratory

#### Summer 1

ALHS 5354: Program Management HECC 5303: Research Design

#### Fall 2

HECC 5391: Practicum in Health and Kinesiology

HECC 5392: Practicum in Health and Kinesiology KINE 5221/5222: Exercise for Special Populations II/Lab

#### Spring 2

HECC 5397: Internship

### Master of Science in Kinesiology Total Semester Credit Hours = 36

Kinesiology is the study of movement or exercise. The Master of Science Degree Program in Kinesiology will provide advanced research-oriented study of kinesiology. The program prepares for a broad range of careers in exercise, physical education, coaching- or sport-related settings, or provides foundation for subsequent doctoral study in exercise science, physical education and/or kinesiology. This degree is also appropriate for clinicians, such as physical therapists and athletic trainers, who want to further their understanding of the science related to their areas of practice. Strong background in the basic sciences is excellent preparation for the M.S. Kinesiology Degree Program.

Curriculum (36 semester hours)

HECC 5303: Research Design HECC 5317: Biometric Methods KINE 5315: Exercise Physiology II KINE 5335: Biomechanics KINE 5307: Motor Learning HECC 5395: Thesis I HECC 5396: Thesis II or HECC 5397: Internship I HECC 5398: Internship II

Electives (15 semester hours) chosen with advisor

### Master of Science in Health Sciences Total Semester Credit Hours = 36

The Master of Science in Health Sciences program is designed to prepare graduates to be effective leaders in the fields of health promotion and disease prevention. The Master of Science in Health Sciences extends upon the curriculum within the Department's undergraduate program in health studies, thus providing both a strong foundation for professional leadership roles as well as future advanced degrees in the field of Health.

Graduates of this program will be prepared to assume leadership roles in: a) assessing, planning, implementing and evaluation individual and group needs for interventions aimed at promoting health and preventing disease; b) administering and/or coordinating specialized activities and programs aimed at promoting health and preventing disease; c) communicating health needs and concerns and resource availability for programs aimed at promoting health and preventing disease; e) critiquing, conducting and contributing to research related to health promotion and disease prevention; f) and serving as advocates for improvements in the fields of health promotion and disease prevention through effective education of individuals, groups and communities.

#### Objectives:

At the completion of the Master's program, the graduate should be able

### to:

1. Content

Critique, conduct and contribute to health promotion and disease prevention research.

Plan and implement health promotion and disease prevention interventions.

Compare and contrast existing health programs and theories, and evaluate their relevance for personal and group health.

Coordinate specialized health promotion and disease prevention activities.

2. Critical Thinking

### GRADUATE COLLEGE OF NURSING AND HEALTH SCIENCES

Assess personal interests and abilities in preparation for selecting an area of specialization in the health field.

Demonstrate an ability and use analogy, model, and metaphor to organize information in the health sciences

Apply statistical, social/political, historical/futurist, and ethical modes of thinking as it pertains to health.

Evaluate and critique the underlying assumptions of the dominant health science discourses.

Analyze and critically assess local, regional, national, and global health issues.

### 3. Communication

Communicate health needs, concerns, and resource availability for health promotion and disease prevention purposes in research format.

Demonstrate an ability and use analogy, model, and metaphor to communicate meaning in the health sciences

Communicate health information to diverse groups, for health promoting and disease prevention purposes.

Communicate health needs and concerns to government and nongovernmental entities involved in establishing or changing health policy.

Serve as a resource professional for health promotion and disease prevention activities.

Present ideas clearly and effectively in written oral communications

Develop and apply networking skills to create and maintain consultative relationships

### 4. Leadership

Demonstrate knowledge of cutting edge health policies or models.

Advocate health to peers and family by practicing model health behaviors.

Function as leaders in supporting health education of individuals, groups and communities.

Advocate for improvements in the field of health promotion and disease prevention.

Plan, implement and evaluate individual and group needs for health promotion and disease prevention interventions

#### 5. Ethics/Values

Evaluate moral and ethical conduct using multiple value systems and perspectives.

Identify ethical issues involved in research, practice, and governance and understand how ethical principles are used to guide professional activities.

Weigh judgments of detrimental behavior in respect to health outcomes against surrounding determinants of health.

### 6. Technology

Demonstrate an ability to use statistical computing software to analyze data and display information.

Demonstrate an ability to use a broad range of technology in health sciences.

Evaluate the efficiency and effectiveness of various intervention technology in health science and promotion.

#### 7. Diversity

Explain the cultural, social, economic, and environmental determinants of health and of health disparities.

Evaluate the relative merits of embracing either a diversity or homogeneity social agenda, and make inferences about likely health implications for our region and world health.

Describe recent trends in health sciences that reveal an association between socioeconomic status and disease or wellness.

**Curriculum** (36 semester hours) Core Requirements (24 semester hours

HECC 5303:	Research Design
HECC 5317:	Biometric Methods
ALHS 5347:	Epidemiology
ALHS 5365:	Theories and Models of Health Behavior
ALHS 5303:	Topics in Allied Health Sciences
ALHS 5305:	Analysis of Needs, Processes and Outcomes

HECC 5395:	Thesis I
HECC 5396:	Thesis II
OR	
HECC 5397:	Internship I
HECC 5398:	Internship II

Prescribed Electives (12 semester hours) chosen with advisor

### Master of Science in Interdisciplinary Studies Total Semester Credit Hours = 36

The Master of Science degree program in interdisciplinary studies (M.S.I.S.) is described in the Graduate Policies and Programs section of this catalog. Health Studies may be either the first field of emphasis (minimum of 12 semester hours) or one of the secondary fields (minimum of six hours) in this degree program. To fulfill requirements of the M.S.I.S. Degree with health studies as the first or a secondary field, the student will select health studies courses and related electives with approval of an advisor in the Department of Health and Kinesiology.

### Graduate Nursing Programs

#### Dr. Susan Yarbrough, Associate Dean for Graduate Nursing Programs

The College of Nursing and Health Sciences offers course work leading to the completion of the Master of Science in Nursing degree. The program description and curriculum schema are as follows:

### Master of Science in Nursing

The Master of Science in Nursing program is designed to prepare individuals for careers in service, education, primary care and research. Emphasis is given to developing the advanced practice skills necessary to provide expert nursing care to clients either directly through clinical practice, or indirectly through the avenues of administration, research or education. Utilizing advanced knowledge and critical thinking skills along with a foundational caring philosophy and health promotion, the program prepares individuals to meet new challenges and the provision of holistic health care. Essential leadership and management skills are integrated with current theory and research in these areas.

The Master of Science in Nursing program builds on UT Tyler's undergraduate program in nursing and provides a firm basis for doctoral level education. There are several options within the MSN degree: administration, nurse practitioner, and education. There is also a Nursing Education Certificate program, a UTSW Women's Health Care Nurse Practitioner Completion option, a RN-MSN option, and a coordinated MSN/MBA degree plan.

The MSN-Administration degree option prepares the graduate to apply leadership and management skills to become the essential link between the vision and mission of the larger health care organization and the unit-based system of patient care. Students develop expertise in resource allocation through using professional skills in assessing and analyzing health care needs in the practice setting.

The MSN-Education degree option prepares the graduate to apply teaching-leaning theory, principles of curriculum development, evaluation methodology and role socialization as a nurse educator in various settings including health care organizations and institutions of higher learning. The graduate develops expertise as an educator of nursing students, patients, consumers and other individuals and groups.

The MSN-Nurse Practitioner degree option prepares the graduate for advanced clinical practice roles with specific population groups in various settings. The graduate develops expertise as a primary care provider with advanced practice skills in the assessment and management of health needs as well as in patient education, consultant and researcher roles.

The RN-MSN degree option is for RNs with an associate degree or diploma who may be eligible for early admission into the nursing graduate program. Combined credit toward the BSN and MSN degrees is earned and the student is awarded the BSN and MSN degrees simultaneously on completion of the program. The coordinated MSN-MBA degree prepares the nurse executive to ensure excellence in client care services and also to impact the business environment in which nurses practice. This degree plan incorporates content in management, leadership, economics, finance, and marketing into a framework for nursing service and health care administration. Students enrolling for this coordinated degree option must meet the admission requirements for both Nursing and Business Administration.

The UT Southwestern Women's Health Care Nurse Practitioner (UTSW-WHCNP) MSN Completion Program allows the UTSW-WHCNP graduate to complete the degree requirements for the Master of Science in Nursing. WHCNP graduates who earned a baccalaureate degree in nursing prior to entering the UTSW program and who are nationally certified as a WHCNP are eligible for admission.

The Nursing Education Certificate program prepares the nurse to apply teaching-learning theory, principles of curriculum development, evaluation methodology, and role socialization as a nurse educator in a variety of settings. The program is designed to provide essential knowledge and skills required by nurse educators and facilitate the transition of the nurse from the clinical setting into the role of nurse educator.

### Objectives

At the completion of the Master's program, the graduate should be able to: 1) extrapolate and evaluate the influence of social, political, educational and economic trends on health care delivery and health policy; 2) analyze the ethical and legal obligations of professional service to humans, and synthesize these concepts into a professional role; 3) critique principles of leadership/management for application within professional nursing practice; 4) appraise and extend the body of nursing knowledge through scientific inquiry; 5) initiate and evaluate responsive and responsible actions to influence the impact of nursing on health care delivery; 6) synthesize strategies for the provision of compassionate and comprehensive health care through a variety of modalities and in multiple settings; and 7) pursue additional advanced educational opportunities and certifications.

### Admission Requirements

In addition to the general graduate admission requirements of the university, students applying for admission to the MSN program are expected to submit a portfolio for evaluation consisting of the following:

- A. Submit references with the completed application (2 professional, 2 academic);
- B. Submit transcripts verifying a minimum grade-point average of 3.0 for the last 60 semester credit hours of undergraduate work;
- C. Hold a Bachelor of Science in Nursing (BSN) degree from a nationally accredited College; RN-MSN applicants must hold either an Associate Degree in Nursing or Diploma in Nursing.
- D. Show proof of current licensure as a Registered Nurse in the state(s) where clinical practicum will occur;
- E. Complete an undergraduate statistics course with a grade of "C" or better;
- F. Submit one-page essay describing career goals.
- G. A satisfactory score on the verbal/quantitative portions of the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). The entrance exam requirement is waived for MSN applicants with a grade point average of 3.2 or above for the last 60 semester credit hours of undergraduate course work. RN-MSN applicants are required to take the entrance exam.
- H. Applicants from countries other than the United States must also meet the admission requirements for international students seeking a graduate degree as listed in the University catalog.
- I. Consideration for admission is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study; socioeconomic background; and involvement and level of responsibility related to other factors, including extracurricular activities, employment, community service, first generation of family to graduate from an undergraduate program, family responsibility for raising children, multilingual proficiency, or geographic region of residence.

J. Students must demonstrate proficiency in the use of the English language. If a student's verbal score on the admission examination is below an acceptable minimum, the student must pass an English proficiency test during the first semester in the program. A foreign student must score a minimum of 550 on the Test of English as a Foreign Language (TOEFL) and have a minimum raw score of 50 on each of the three sections of the examination. Only the TOEFL examination given by the Educational Testing Service is acceptable. The student will be notified by the MBA advisor whether he/she has or has not been accepted in the MBA program.

### Criminal Background Check

All applicants who are admitted to the MSN program in the College of Nursing and Health Sciences are required to complete a criminal background check. No student will be allowed entry to a nursing course without a clear report or a letter from the Texas Board of Nursing certifying that any criminal history is not a danger to the public.

### Semester Credit Hour Limitations

A student may not register for graduate nursing courses unless they have the permission of the Associate Dean or are fully or conditionally admitted into the graduate nursing program.

### Transfer of Credit

A student may transfer a maximum of nine semester hours of graduate credit in which a grade of "B" or better has been earned from approved institutions. Transfer credit is subject to the approval of the Associate Dean. All coursework applied to the degree must be taken within a six-year period of time.

### Degree Requirements for the MSN Degree

The following courses are core courses that must be taken by students in the MSN, MSN-MBA, RN-MSN, and the MSN-NP options.

Total:	18-21 Sem. Credit	Hours
NURS 5395: Thesis*		6
or		
NURS 5334: Professional Schol	larship*	3
HECC 5317: Biometric Metho	· 1 /	3
NURS 5356: Health Promotior	1	3
NURS 5320: Research Design		3
NURS 5312: Nursing Theory		3
NURS 5308: Contemporary He	ealthcare Ethics	3

+NURS 5324 Health Care Informatics is taken by NP students

The following courses are taken according to the role the student selects within the MSN option. Clinical courses are followed by a ratio which indicates the number of didactic hours per week in the classroom followed by credit hours earned in an advanced practice setting.

### Education

The role area of education consists of four required courses (two theoretical nursing education courses, one practicum course consisting of 112.5 practicum hours, and one cognate course). The student may also select electives of interest (2 electives if non-thesis option chosen) to complete the 36 SCH required for the degree.

NURS 5327: Nursing Educ Curriculum Dev.	3
NURS 5328: Evaluation in Nursing Education	3
NURS 5329: Nurse Educ Role Strategies and Practicum (0-	3
3)	
Plus one of the following EDUC courses:	3
EDUC 5303: Applied Learning Theories	
EDUC 5309: Educational Technology	
EDUC 5320: World Wide Web Applications	
EDUC 5352: Curriculum Foundations	
12 Sem. Credit H	lours
3-6 free elective hours*	

3-6 free elective hours*	
Total:	36 Sem. Credit Hours

### Administration

The role area of administration requires four courses (three theoretical/practicum courses consisting of 37.5 practicum hours each and one cognate course). The student may also select electives of interest (2 electives if non-thesis option chosen) to complete the 36 SCH required for the degree.

and addition	
NURS 5315: Assessment of Nursing Management	
NURS 5326: Implementation of Nursing Management	3
NURS 5330: Evaluation of Nursing Management	3
Plus one of the following MANA courses:	
MANA 5320: Human and Organizational Behavior or	3
MANA 5350: Human Resource Management	3
12 Sem. Credit	Hours
3-6 free elective hours*	
Total: 36 Sem. Credit 1	Hours
Practice/Nurse Practitioner	
NURS 5350: Advanced Pathophysiology	3
NURS 5352: Advanced Health Assessment	3
NURS 5354: Advanced Nursing Pharmacotherapeutics	3
+ NP degree plan (NP)	
Total: 48 Sem. Credit	Hours

\*The number of elective hours varies based on the student's choice of thesis or non-thesis track.

+ specific for each program partnership (see program for Nurse Practitioners for additional information)

### RN-MSN

Students complete 22 SCH at the undergraduate level and then are admitted to the selected master's option. Twenty-one SCH of graduate core courses are completed by all RN-MSN students. Advanced Pathophysiology and Advanced Health Assessment are considered as core courses for the RN-MSN student. Course work for the role of nursing administration or nursing education is then taken as described above. NP-track options are also available. The student has the option of writing a thesis or conducting a scholarly project. A total of 36-39 SCH of graduate course work is required depending upon whether thesis or non-thesis option is taken.

Courses taken to complete BSN level	of degree first year:
NURS 3415: Professional Transitions*	4
NURS 4501: Community Health**(+)	5
NURS 4333: Nursing Research	3
NURS 4631: Professional Synthesis (+)	6
Elective (upper division)	4
Upper Division BSN Credits	22 Sem. Credit Hours

\*Advanced placement credit = 30 SCH

\*\*Offered for RNs only during Summer Session

#### (+)Clinical component

At this point, a student may choose to pursue BSN only. Remaining courses for BSN include the following 3 courses:

NURS 3303: Pathophysiology of Care NURS 3312: Health Assessment for Licensed Nurses NURS 4234: Issues in Professional Nursing

Graduate Core Courses that must be completed by all RN-MSN students:

Total	24-27 Sem. Credit Hours	
NURS 5395: Thesis	6	
or		
NURS 5334: Professional Scholarshi	p 3	
NURS 5320: Research Design	3	
HECC 5317: Biometric Methods (or	r equivalent) 3	
NURS 5312: Nursing Theory	3	
NURS 5352: Advanced Health Asses	ssment 3	
NURS 5308: Contemporary Healtho	care Ethics 3	
NURS 5356: Health Promotion	3	
NURS 5350: Advanced Pathophysio	logy 3	

The remaining courses are taken according to the role the student selects within the RN-MSN option. MSN-Administration and MSN-Education options will total 36-39 SCH. The MSN-NP track will total 48 SCH.

# The Coordinated Master of Science in Nursing and Master of Business Administration

Students enrolling for this coordinated degree option must meet the admission requirements listed elsewhere in this catalog for both Business Administration and Nursing. Students complete a total of 57-60 SCH depending upon whether the thesis or non-thesis option is selected. Both the MSN and MBA degrees are awarded simultaneously at graduation.

### Degree Requirements (MSN-MBA)

	Total: 57-60 Sem. Credit Ho	urs
	MARK 5370: Health Care Marketing in Contemporary Society	3
	MANA 5395: Strategy and Policy Formation	3
	MANA 5390: Designing Effective Organizations	3
	or	
	MANA 5320: Leading and Managing People	3
	MANA 5350: Human Resource Management	3
	HECC 5317: Biometric Methods	3
	or	
	MANA 5315: Quantitative Analysis	3
	MANA 5305: Decision Making in Operations Mgt.	3
	FINA 5320: Advanced Financial Management	3
	ECON 5340: Economics of Public Policy	3
	ECON 5300: Economic Concepts and Processes	3
	ACCT 5320: Accounting for Management Control	3
	ACCT 5300: Accounting Concepts and Procedures	3
	NURS 5395: Thesis	6
	or	
	NURS 5334: Professional Scholarship	3
	NURS 5330: Evaluation of Nursing Management	3
	NURS 5326: Implementation of Nursing Management	3
	NURS 5315: Assessment of Nursing Management	3
	NURS 5356: Health Promotion	3
	NURS 5320: Research Design	3
	NURS 5308: Contemporary Healthcare Ethics	3
	NURS 5312: Nursing Theory	3
_	· · · · · · · · · · · · · · · · · · ·	

NOTE: See COLLEGE OF BUSINESS ADMINISTRATION AND TECHNOLOGY catalog section for further information.

### Graduation Requirements

All candidates for the Master of Science in Nursing degree at The University of Texas at Tyler must meet the following requirements:

- A. A minimum grade-point of 3.0 on all graduate level work taken at UT Tyler. No course with a grade below "B" may be applied toward this degree.
- B. Nursing courses within the MSN curriculum may be repeated only once. Only two courses may be repeated.
- C. Satisfactory completion of all degree requirements including either NURS 5334 Professional Scholarship or NURS 5395 Thesis.

### Nursing Education Certificate Program

The Nursing Education Certificate Program is designed to provide nurses with knowledge and skills of adult education designed to address the education issues unique to the nursing profession including client safety, clinical competencies, and requirements of the state board and other accreditation agencies.

The Nursing Education Certificate Program prepares the nurse to apply teaching-learning theory, principles of curriculum development, evaluation methodology, and role socialization as a nurse educator in a variety of settings.

### Objectives

At the completion of the Nursing Education Certificate program, the graduate will be able to: 1) utilize essential knowledge and skills required in the role of the nurse educator; and 2) successfully transition from the clinical setting into the role of nurse educator.

### Admission Requirements

- A. In addition to the general graduate admission requirements of The University of Texas at Tyler, students applying for admission to the certificate program are expected to submit a portfolio for evaluation consisting of the following:
- B. A Bachelor of Science in Nursing degree from a nationally accredited college
- C. Minimum grade point average (GPA) of 3.0 for the last 60 semester credit hours of undergraduate work or other graduate work.
- D. Current licensure as a Registered Nurse in the state where practicum will occur.
- E. Completion of application.
- F. Submission of official transcripts and references (2 academic and 2 professional).
- G. Consideration for admission is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study; socioeconomic background; and involvement and level of responsibility related to other factors, including extracurricular activities, employment, community service, first generation of family to graduate from an undergraduate program, family responsibility for raising children, multilingual proficiency, or geographic region of residence.

### Certificate Requirements

The following courses must be taken by students in the Nursing Education Certificate Program.

NURS 5327: Nursing Education Curriculum Development	3
NURS 5328: Evaluation in Nursing Education	3
NURS 5329: Nurse Educator Role Strategies & Practicum	3
AND one of the following courses*	3
EDUC 5303: Applied Learning Theories	
EDUC 5309: Educational Technology	
EDUC 5320: Worldwide Web Applications	
EDUC 5352: Curriculum Foundations	

NURS 5324: Health Care Informatics

Total

\* Course approved by Associate Dean

### Completion of the Certificate

The successful completion of 12 semester credit hours is required to complete the certificate program (see courses listed above). Individuals receive college credit for each course completed. These courses will be listed on an official university transcript and a certificate of completion will be awarded.

12 sem. credit hours

### Academic Standing

Students must maintain a cumulative grade point average of 3.0 or greater. Credits earned in fulfillment of the Nursing Education Certificate Program may be applied to the Master of Science in Nursing degree program. All other graduate degree regulations and policies are applicable to the certificate program.

# Master of Science in Nursing Completion Requirements

For Graduates of UT Southwestern Women's Health Care Nurse Practitioner Program

### Eligibility

To be eligible for this option, the following admission requirements must be met:

Be a graduate of UT Southwestern Women's Health Care Nurse Practitioner Program

Have a Baccalaureate degree in nursing earned prior to entrance to the UT Southwestern Women's Health Care Nurse Practitioner Program

Be nationally certified as a Women's Health Care Nurse Practitioner

In addition to the general graduate admission requirements of the University, students applying for admission to the MSN program are expected to fulfill the following requirements:

- 1. Submit references with the completed admission application (2 professional, 2 academic);
- 2. Submit transcripts verifying a minimum grade point average of 3.0 for the last 60 semester credit hours of undergraduate work;
- 3. Hold a Bachelor of Science in Nursing (BSN) degree from an accredited College;
- 4. Show proof of current licensure as a Registered Nurse in the state(s) where clinical practicum will occur;
- 5. Complete an undergraduate statistics course with a grade of "B" or better;
- 6. A satisfactory score on the combination of the verbal/quantitative portions of the GRE or a normative score on the Miller Analogies Test (MAT ).
- 7. Consideration for admission is also given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, multilingual proficiency, geographic region of residence, first generation of family to graduate from an undergraduate program, and involvement and level of responsibility in other matters including extracurricular activities, employment, community service, or family responsibility of raising children.

### Degree Plan

The semester hours that eligible students will receive credit for include the following:

#### UT Tyler - Credit for the following Courses:

NURS 5354: Advanced Pharmacotherapeutics (if less than	3
5 years old)	
NURS 5352: Advanced Health Assessment	3
NURS 5318: Women's Health Issues	3
NURS 5380: Professional Seminar-Women's Health II	3
Total 12 Sen	n. Credit Hours
	(TT)

The courses that eligible students will need to complete at The University of Texas at Tyler to meet requirements for the Master of Science in Nursing (MSN) include:

### UT Tyler - Courses needed to complete:

3
3
3
3
3
6
3
3
3
. credit hours
Credit Hours

### Master of Science in Nursing for Nurse Practitioners

### Dr. Gayle Varnell, Assistant Dean for Advanced Practice

The MSN-NP offered by The University of Texas at Tyler includes the following nurse practitioner roles: Family Nurse Practitioner (FNP), Acute Care Nurse Practitioner (ACNP), Pediatric Nurse Practitioner (PNP), and Geriatric Nurse Practitioner (GNP). The acute care and family tracks are offered every year. The pediatric track is offered in odd years and the geriatric track in even years depending on demand. The MSN-NP option may also be pursued as a Post-Master's certification track.

### Admission Requirements

Students applying to this degree option must meet the admission requirements for the MSN degree of the College of Nursing and Health Sciences. Applicants must have current CPR certification in ACLS or PALS before beginning clinical courses.

### **MS-NP** Degree Requirements

The MS-NP degree requires 30 hours of Cognate and Foundation courses and 18 hours of Clinical Courses for a total of 48 hours.

Total	30 sem. credit hours
NURS 5395: Thesis	3
OR	
Elective	3
NURS 5334: Professional Scholarship	3
AND	Ĩ
NURS 5354: Advanced Nursing Pharmacor	therapeutics 3
NURS 5352: Advanced Health Assessment	(2:1) 3
NURS 5350: Advanced Pathophysiology	3
NURS 5324: Health Care Informatics	3
NURS 5308: Contemporary Healthcare Eth	hics 3
NURS 5312: Nursing Theory	3
NURS 5320: Research Design	3
HECC 5317: Biometric Measures	3

**Clinical Courses:** Student must select one of the following 18-hour tracks (Family Nurse, Pediatric Nurse, Geriatric Nurse, or Acute Care Nurse) for a total of 48 semester credit hours for the degree:

Clinical Courses: Family Nurse Practitioner (18 hrs.)		
NURS 5111: The Advanced Practice Role	1	
NURS 5222: Diagnostic Methods and Procedures	2	
NURS 5356: Health Promotion	3	
NURS 5364: Family Nurse Practitioner Primary Care I	3	
NURS 5366: Family Nurse Practitioner Primary Care II	3	
NURS 5660: Family Nurse Practitioner Practicum	6	
Clinical Courses: Pediatric Nurse Practitioner (18 hrs.)		
NURS 5111: The Advanced Practice Role	1	
NURS 5222: Diagnostic Methods and Procedures	2	
NURS 5356: Health Promotion	3	
NURS 5374: Pediatric Nurse Practitioner Primary Care II	3	
NURS 5664: Pediatric Nurse Practitioner Practicum	6	
Clinical Courses: Geriatric Nurse Practitioner (18 hrs.)		
NURS 5111: The Advance Practice Role	1	
NURS 5222: Diagnostic Methods and Procedures	2	
NURS 5356: Health Promotion	3	
NURS 5376: Geriatric Nurse Practitioner Primary Care I	3	
NURS 5378: Geriatric Nurse Practitioner Primary Care II	3	
NURS 5666: Geriatric Nurse Practitioner Practicum	6	
Clinical Courses: Acute Care Nurse Practitioner (18 hrs.)		
NURS 5111: The Advance Practice Role	1	
NURS 5222: Diagnostic Methods and Procedures	2	
NURS 5442: Acute Care Nurse Practitioner Adult Care I	4	
NURS 5542: Acute Care Nurse Practitioner Adult Care II	5	
NURS 5662: Acute Care Nurse Practitioner Practicum	6	

### Post-Master's Nurse Practitioner Certificates

For students who already hold a Master of Science in Nursing, the following Post-Master's Nurse Practitioner Certificates are available. Post-Master's Nurse Practitioner Certificates require completion of 24-27 semester credit hours.

### Post-Master's Family Nurse Practitioner Certificate Total Semester Credit Hours=24

### **Required Courses:**

NURS 5350, NURS 5352, & NURS 5354 (9 hours)

### Clinical Courses: Family Nurse Practitioner

NURS 5111: The Advanced Practice Role NURS 5222: Diagnostic Methods and Procedures for Advanced Practice	1 2
NURS 5364: Family Nurse Practitioner Primary Care I	3
NURS 5366: Family Nurse Practitioner Primary Care II	3
NURS 5660: Family Nurse Practitioner Practicum	6
Total	15 Sem. Credit
Hrs.	

### Post-Master's Pediatric Nurse Practitioner Certificate Total Semester Credit Hours=24

### Required Courses:

NURS 5350, NURS 5352, & NURS 5354 (9 hours)

### Clinical Courses: Pediatric Nurse Practitioner

NURS 5111: The Advanced Practice Role		1
NURS 5222: Diagnostic Methods and Proc	edures	2
NURS 5372: Pediatric Nurse Practitioner P	rimary Care I	3
NURS 5374: Pediatric Nurse Practitioner P	rimary Care	3
II		
NURS 5664: Pediatric Nurse Practitioner P	racticum	6
Total	15 Sem. Credit H	rs.

### Post-Master's Geriatric Nurse Practitioner Certificate Total Semester Credit Hours=24

### Required Courses:

NURS 5350, NURS 5352, & NURS 5354 (9 hours)

### Clinical Courses: Geriatric Nurse Practitioner

NURS 5111: The Advance Practice Role	1
NURS 5222: Diagnostic Methods and Procedures	2
NURS 5376: Geriatric Nurse Practitioner Primary Care I	3
NURS 5378: Geriatric Nurse Practitioner Primary Care	3
II	
NURS 5666: Geriatric Nurse Practitioner Practicum	6
Total 15 Sem. Credit Hrs.	

### Post-Master's Acute Care Nurse Practitioner Certificate Total Semester Credit Hours=27

### Required Courses:

NURS 5350, NURS 5352, & NURS 5354 (9 hours)

### Clinical Courses: Acute Care Nurse Practitioner

NURS 5111: The Advance Practice Role	1
NURS 5222: Diagnostic Methods and Procedures	2
NURS 5442: Acute Care Nurse Practitioner Adult Care I	4

NURS 5542: Acute Care Nurse Practitione	r Adult Care	5
II NURS 5662: Acute Care Nurse Practitione	r Practicum	6
Total 18 Sem. Credit Hrs.		

### Doctor of Philosophy Degree (Ph.D.) in Nursing

### Dr. Barbara Haas, Doctoral Program Director

The College of Nursing and Health Sciences offers a unique doctorate that focuses on health care in communities within the context of culture. The program, which is built on a strengths model, is offered in an online format and provides advanced education to prepare nurse researchers and educators for the future.

### Objectives

The Ph.D. in Nursing prepares nurse leaders to: 1) design, conduct, and disseminate research that contributes to the advancement of nursing science and global health; 2) conduct culturally competent research to guide nursing practice; 3) incorporate research outcomes to formulate policies pertinent to nursing and global health; and 4) construct and implement creative and innovative strategies related to education for nursing and health.

### Admission Requirements

In addition to the general requirements for admission to doctoral study at The University of Texas at Tyler, the following criteria must be met for entry into the program:

- 1. A baccalaureate degree in nursing from a college or university approved by a recognized national accrediting body.
- 2. A master's degree from a college or university approved by a recognized national accrediting body.
- 3. A minimum GPA of 3.0 on 4.0 scale on previous academic coursework.
- 4. Submission of Graduate Record Examination (GRE) scores.
- 5. A current license to practice professional nursing.
- 6. International applicants will be evaluated for equivalency on criteria 1 5.
- International students must score a minimum of 550 (paper), 213 (computer), or 78 (internet-based) on the Test of English as a Foreign Language (TOEFL). For more information on International applications, please see the general graduate section of this catalog.
- 8. A 3-5 page paper linking professional goals and research interests to health issues emphasized in this program.
- 9. Three academic and/or professional letters of reference.

Consideration for admission to the PhD in Nursing program will also be given to one or more of the following: the applicant's demonstrated commitment to his or her chosen field of study, socioeconomic background, first generation college graduate, multilingual proficiency, geographic region of residence, and level of responsibility in other matters including extracurricular activities, employment, community, service, and family responsibilities.

### **Degree Requirements**

This degree program will be delivered online through the UT System's UT TeleCampus. Students will be required to attend an orientation on the UT Tyler campus prior to beginning coursework. Students may be required to be present for other special activities throughout their program of study (e.g. dissertation defense).

### 1. Minimum Credit Hours

Category	Semester Credit Hours
Required courses	36
Cognates	6
Electives	6
Dissertation	12
TOTAL	60

2. Special degree requirements (for details on university doctoral requirements, see the general graduate section of this catalog and the Handbook for the Nursing Ph.D. available on the College of Nursing and Health Sciences Graduate Studies website)

- a. Students will enroll in a 3-hour research practicum as the fourth course focusing on health care within the context of culture. The practicum will provide supervised research experience facilitating the student's application of knowledge accrued in previous coursework.
- b. The Preliminary Examination may be taken after the student has completed 30 hours of coursework. Students may not advance to candidacy or register for dissertation hours until all coursework is completed and all portions of the Preliminary Examination have been passed satisfactorily.
- c. Students have a maximum of six years to complete the program. Students will have four years to complete the program after entering candidacy. Students unable to complete the program within the designated time limits must file for an extension.
- d. A dissertation of original research contributing to the body of knowledge in nursing will be required. Students must enroll for six credit hours during each long semester while in the dissertation process. A minimum of 12 hours of dissertation credit is required.
- e. Students must meet all doctoral degree requirements of the University.
- **3. Transfer work:** Students may transfer up to twelve hours of coursework with the approval of their advisor and the Director of the Doctoral Program. Students will be responsible for providing necessary documentation of course equivalency.

Below is a typical outline of program progression for a full-time student

### YEAR 1

Fall NURS 6310: Philosophy of Science NURS 6342: Scholarship in Nursing NURS 6320: Data Management		3 3 3
Spring NURS 6312: Theory Construction and Evaluation NURS 6322: Advanced Statistics NURS 6333: Qualitative Research Designs & Methods		3 3 3
Summer NURS 6350: Research in Transcultural Health Elective / Cognate YEAR 2		3 3
Fall	3	
NURS 6330: Quantitative Research Design & Methods		
NURS 6354: The Nurse as Educator		
Elective / Cognate	3	
Spring NURS 6352: Healthcare Policy Development NURS 6337: Advanced Research Design & Methods Elective / Cognate		
Summer NURS 6356: Research Practicum Elective / Cognate <b>YEAR 3</b>		
Fall NURS 6660: Dissertation	6	
Spring NURS 6660: Dissertation Total: 60 sem. credit how	6 urs	

# NURSING AND HEALTH SCIENCES GRADUATE COURSE DESCRIPTIONS

PLEASE NOTE: Most courses have fees attached, and those fees are subject to change. Please consult the UT Tyler web page for current fees.

Prefix and number in parentheses following the U.T. Tyler course title is the Texas Common Course Number designation.

### Allied Health Science (ALHS)

### ALHS 5104: Drug-Exercise Interactions

Study of the major classes of drugs used with patients in selected categories of diseases or disorders. Emphasis is on drugs used with cardiovascular, pulmonary and metabolic diseases and disorders, drug actions, and drug effects on responses to exercise.

### ALHS 5303: Advanced Topics in Allied Health Science

Study of selected topics of interest to allied health professionals. May be repeated once for credit when content changes.

### ALHS 5305: Analysis of Needs, Processes, and Outcomes in Health

Study of the quantitative and qualitative methods applied to determining needs, processes, and outcomes for a broad range of health entities with a focus on the interactions among financial exigencies, processes of product or service delivery and quality as core elements in decision-making.

### ALHS 5314: Aging and Health

Study of changes in functional capacities and responses to acute and chronic exercise with aging, and effects of chronic exercise on factors associated with aging.

### ALHS 5320: The U.S. Health System's Origins and Functions

Study of the development and functioning of the unique United States health system, including structural, political and economic factors that dictate access, quality and costs of health services. (Available online.)

### ALHS 5322: Nutrition, Health, and Disease

Reinforcement and application of nutritional facts and concepts through study of research, analysis of diets, and critiquing of nutritional information from a variety of sources. (Available online.)

### ALHS 5324: Drugs and Health

Study of legal and illegal use, misuse, and abuse of chemical substances that alter structure or function in living organisms. Current trends of drug use in modern society and ways to decrease demand for illegal substances are examined.

### ALHS 5326: Sexual Health

Study of the biological, psychological, sociocultural, and ethical aspects of human sexual behavior as they relate to health. Emphasis on developing conceptual and practical skills for identifying, analyzing and addressing health issues as they relate to sexual behavior.

### ALHS 5333: Stress Management

Study of the situations and underlying processes that result in emotional and physiological arousal, including life assessments and behavioral interventions for altering arousal levels.

### ALHS 5343: Community Health Assessment

Study of the health of communities and patterns of disease occurrence through community assessment and epidemiologic methods.

### ALHS 5347: Epidemiology

Study of the application of epidemiologic findings to the planning of health services, with emphasis on constructing a rational basis for setting priorities and allocating health resources.

### ALHS 5350: Public Health Administration

Study of the science and art of preventing disease, prolonging life, and promoting health through organized community efforts. Emphasis is on the relationship between the political or governmental function and the service or regulatory function of health delivery.

### ALHS 5354: Program Management

Study of the day-to-day supervision and administration of exercise and health promotion programs.

### ALHS 5362: Community Education

Study of educational interventions for promoting health of communities.

### ALHS 5365: Theories and Models in Health Behavior

Study of theories and models as they may be applied to health-related community and individual behavior-change programs.

### ALHS 5366: Health Communications

Study of the process of developing health-related messages.

### ALHS 5367: Educational Interventions for Life-Style Changes

Study of educational interventions related to promotion of health of individuals: theoretical aspects of program development, materials, and presentation.

### Clinical Exercise Physiology Program (CEPH)

### CEPH 5121: Neuromuscular Exercise Physiology Laboratory

Study and practice of laboratory techniques used in evaluating neuromuscular responses to exercise. **Co-requisite:** CEPH 5221.

### CEPH 5123: Cardiorespiratory Exercise Physiology Laboratory

Study and practice of laboratory techniques used in evaluating cardiorespiratory responses to exercise. **Co-requisite:** CEPH 5223.

### CEPH 5213: Diagnostic Tests and Exercise Prescription

Study of (1) techniques used in diagnosis and evaluation of functional capacity, with particular reference to cardiopulmonary status (major emphasis is given to graded exercise testing and electrocardiography), and (2) principles and procedures of exercise prescription. Guidelines of American College of Sports Medicine are studied. **Co-requisite:** CEPH 5214.

### CEPH 5214: Diagnostic Tests and Exercise Prescription Laboratory

Practice in conducting diagnostic tests and application of principles of exercise prescription related to wellness and rehabilitation programs. **Co-requisite:** CEPH 5213.

### CEPH 5221: Neuromuscular Exercise Physiology

In-depth study of neuromuscular function with specific reference to acute and chronic exercise. **Co-requisite:** CEPH 5121 or 5222.

### CEPH 5222: Neuromuscular Exercise Physiology Laboratory

Study and practice of laboratory techniques and clinical procedures used in evaluating neuromuscular responses to exercise. **Co-requisite:** CEPH 5221.

### CEPH 5223: Cardiorespiratory Exercise Physiology

In-depth study of cardiorespiratory function with specific reference to acute and chronic exercise. **Co-requisite:** CEPH 5123 or 5224.

### CEPH 5224: Cardiorespiratory Exercise Physiology Laboratory

Study and practice of laboratory techniques and clinical procedures used in evaluating cardiorespiratory responses to exercise. **Co-requisite:** CEPH 5223.

## Health and Exercise Core Courses (HECC)

### HECC 5303: Research Design

Study of designs commonly employed in research in health and exercise sciences.

### HECC 5315: Reduction, Analysis and Interpretation of Data

Study of principles and techniques of reducing, summarizing, and statistically treating data. Computer-assisted techniques are included.

### HECC 5317: Biometric Methods

Study of statistical analysis of basic and clinical research data.

### HECC 5370: Ethics

Study of ethics and its application in health and kinesiology. Emphasis is on development and evaluation of ethical viewpoints based on theory and fundamental principles. (Available online.)

### HECC 5376: Seminar

Seminar on research literature related to specific topics in the study of movement and health professions.

### HECC 5391, 5392: Practicum in Health and Kinesiology

A minimum of 140 clock hours of supervised experience in a health profession or exercise science setting. **CR/NC only. Prerequisite:** Consent of advisor.

### HECC 5393: Contemporary Issues in Health and Kinesiology

Analysis of selected contemporary controversial problems in the areas of health and human movement, with emphasis on rational development and evaluation of viewpoints. (Available online.)

### HECC 5395: Thesis I

Selection of research topic and development of a thesis plan. **CR/NC only. Prerequisite:** At least 15 graduate hours, HECC 5303 or equivalent, and consent of advisor.

### HECC 5396: Thesis II

Completion and approval of thesis. **CR/NC only. Prerequisite:** HECC 5395 or consent of advisor.

### HECC 5397, 5398: Internship

A minimum of 200 hours of applied activities in clinical or field-based settings. Intended to provide the educational link between more closely supervised university faculty- or campus-related instruction and the independence of the real-world setting. **Prerequisite:** Consent of advisor and Department Internship Coordinator.

### HECC 5199 - 5699: Independent Study

Independent study in specific areas of health and exercise science not covered by organized graduate courses. A maximum of six hours of independent study courses may be applied toward a graduate degree. **Prerequisite:** Consent of department chair.

### Kinesiology (KINE)

### KINE 5116: Exercise Metabolism Laboratory

Study and practice of laboratory techniques used in evaluating metabolic responses to exercise. **Co-requisite:** KINE 5216.

### KINE 5216: Exercise Metabolism

In-depth study of metabolic responses to acute and chronic exercise. **Co-requisite:** KINE 5116 or 5217.

### KINE 5217: Exercise Metabolism Laboratory

Study and practice of laboratory techniques and clinical procedures used in evaluating metabolic responses to exercise. **Co-requisite:** KINE 5216.

### KINE 5219: Exercise for Special Populations I

Study of principles of prescribing exercise for individuals with selected cardiovascular, pulmonary and metabolic diseases, with overview of pathophysiology, medical and surgical management, and physical assessment related to these diseases. **Co-requisite:** KINE 5220. **Prerequisite:** CEPH 5213/5214.

### KINE 5220: Exercise for Special Populations I Laboratory

Practice in writing exercise prescriptions and observing and assisting with exercise sessions for individuals with selected cardiovascular, pulmonary and metabolic diseases. **Co-requisite:** KINE 5219. **Prerequisite:** CEPH 5213/5214.

### KINE 5221: Exercise for Special Populations II

Study of principles of prescribing exercise for individuals with selected orthopedic/musculoskeletal, neuromuscular and immunologic diseases and disabilities, with overview of pathophysiology, medical and surgical management, and physical assessment related to these diseases and disabilities. **Co-requisite:** KINE 5222. **Prerequisite:** CEPH 5213/5214.

### KINE 5222: Exercise for Special Populations II Laboratory

Practice in writing exercise prescriptions and observing and assisting with exercise sessions for individuals with selected orthopedic/musculoskeletal, neuromuscular and immunologic diseases and disabilities. **Co-requisite:** KINE 5221. **Prerequisite:** CEPH 5213/5214.

### KINE 5304: Exercise Psychology

Study of how exercise affects and is affected by psychological and sociological variables related to health and fitness.

### KINE 5305: Motor Development

An overview of the life changes that occur in physical fitness, physical skills, and perceptual motor skills. Individual variations due to genetic factors and environmental interventions are examined.

### KINE 5306: Topics in Motor Performance

In-depth study of selected topics related to motor performance, including the areas of biomechanics, exercise physiology, motor control, motor development, and motor learning. May be repeated once for credit when content changes.

### KINE 5307: Motor Learning

Study of the individual processes of skill acquisition, including the involvement of transfer, timing, feedback, practice, retention and motivation.

### KINE 5308: Adapted Physical Education for Children and Adults

An in-depth study of selected disabilities and adaptations needed to permit participation in leisure and sports activities. Emphasis is given to recreational activities and training techniques appropriate for competitive athletics.

### KINE 5309: Advanced Motor Control

An in-depth study of central and peripheral neural mechanisms involved in implementing physical and perceptual skills.

### KINE 5310: Sport Psychology

Study of cognitive, social and emotional factors in sport performance. (Available online.)

### KINE 5313: Exercise Physiology I

A survey of exercise physiology, examining muscular, metabolic, and cardiorespiratory adaptations to acute and chronic exercise. (Available online.)

### KINE 5315: Exercise Physiology II

Advanced study of physiological adaptations to acute and chronic exercise. **Prerequisite:** CEPH 5221, CEPH 5223 and KINE 5216, or consent of instructor.

### KINE 5317: Training Methods

Study of training methods used to improve performance. (Available online.)

### KINE 5318: Strength Development

Study of muscular strength: physiology, factors that affect strength, and training methods.

### KINE 5333: Topics in Biomechanics

In-depth study of selected topics related to mechanical components of human motion. May be repeated once for credit when content changes.

### KINE 5335: Biomechanics

Study of kinematic and kinetic analysis of human motion.

### KINE 5338: Issues in Athletic Training and Sports Medicine

Study of current issues related to athletic training and sports medicine, with specific application to competitive athletics. **Prerequisite:** Undergraduate course on athletic injuries and training, or consent of instructor.

### KINE 5341: Sports Nutrition

Study of nutrition as it relates to optimal training and performance of sports activities. **Prerequisite**: ALHS 5322 Nutrition, Health and Disease or equivalent graduate or upper-division undergraduate general nutrition course.

### Kinesiology Online Program (KINO)

The following courses are offered as part of the collaborative Kinesiology Online Master's Degree Program. The KINO prefix is an unofficial, generic prefix given to all courses in this collaborative curriculum offered via the UT TeleCampus. The university initials listed with each course indicate the university affiliation of the faculty involved in developing the course, as well as the institution(s) that offer(s) the course. The official course prefix and name depends on the institution offering the course in a given semester.

### KINO 6310: Exercise Physiology (UT Tyler/UTPB):

This course provides a comprehensive survey of exercise physiology, examining muscular, metabolic, and cardio-respiratory adaptations to acute and chronic exercise. Emphasis is on the major concepts in terms of normal responses to exercise. **Prerequisite**: Course(s) in anatomy and physiology, or consent of advisor.

### KINO 6312: Training and Conditioning Methods (UT Tyler/UTA/UTPB)

This course involves the study of training and conditioning methods used to improve and sustain athletic performance. Students will study methods and programs used with athletes to develop aerobic endurance, muscular strength, and anaerobic power, as well as the underlying physiological bases of the training effects. **Prerequisite:** KINO 6310, Exercise Physiology or the equivalent.

### KINO 6316: Applied Biomechanics (UTEP)

Students will investigate the application of biomechanical principles to human motor skill performance in sport and exercise settings. Emphasis will be placed on the teaching and learning of motor skills, characteristics of skilled performance, and safety-related considerations.

### KINO 6320: Sport Psychology (UT Tyler/UTPB/UTSA)

Students will investigate psychological and social-psychological theories and current research pertaining to the study of sport and physical activity. Topics covered will include personality, anxiety, arousal, causal attribution, motivation, attention, self-confidence and exercise psychology. This course is a prerequisite for KINO 6322, Applied Psychology.

### KINO 6322: Applied Sport Psychology (UTPB/UTSA)

Students will develop an array of mental training techniques that have been used successfully by athletes and coaches to improve sport performance. How to use each technique as an athlete and teach it as a coach will be the primary objectives. This course takes an educational approach toward performance enhancement, not a clinical one. The mental training techniques include imagery, arousal regulation, somatic and cognitive stress management, concentration and attention control, positive self-talk, and goal setting. **Prerequisite:** KINO 6320 - Sport Psychology or equivalent.

### KINO 6323: Exercise Psychology (UTPB)

Students will study the theoretical models and research related to the determinates of exercise adoption and adherence. Research related to the effects of exercise on mental health is also reviewed. Students are encouraged to apply their study of theory and research to the design of wellness, fitness, and health promotion programs in various settings of professional interest – educational, corporate, and commercial.

### KINO 6326: Motor Learning and Control (UTEP)

Current theories and concepts involved in the processes of motor skill acquisition and performance from a behavioral perspective. Major topics include the methodology of studying motor performance, information processing, sensory and central contributions to motor control, coordination, individual differences, conditions of practice, feedback, retention and transfer and the learning process. Practical application of principles is emphasized.

### KINO 6330: Sport and Society (UTPB)

In this course, a critical examination of sport will be made. Students will examine opposing points of view related to the role of sport in various American institutions (political, economic, educational, religious) and by diverse sociocultural groups within these institutions. The impact of sport upon individuals and society will also be scrutinized (racism, sexism, elitism).

### KINO 6340: History and Philosophy (UTPA)

Students will examine the historical development of kinesiology, physical education and sport from primitive to modern day times. Emphasis is placed on the role sport and physical education plays as part of the total educational system and how educational philosophy influences modern sport and physical education. Major philosophies will be investigated and applied to assist the student in developing her or his individual philosophy.

### KINO 6342: Ethics (UT Tyler)

Study of ethics and its application in health and kinesiology. Emphasis is on development and evaluation of ethical viewpoints based on theory and fundamental principles.

# KINO 6346: Contemporary Issues in Health and Kinesiology (UT Tyler)

Analysis of selected contemporary controversial problems in the areas of health and human movement, with emphasis on rational development and evaluation of viewpoints.

# KINO 6348: The U.S. Health System's Origins and Functions (UT Tyler)

Study of the development and functioning of the unique United States health system, including structural, political and economic factors that dictate access, quality and costs of health services.

### KINO 6350: Curricular Innovations (UTA/UTPB)

Students will examine current trends and issues in physical education curriculum development. The course content includes examples of program innovations, as well as current international, national (e.g., NASPE national standards), and local (e.g., TEKS in Texas) curriculum initiatives. Individually or as members of a small group, students will design physical education curricula to be implemented in their own schools.

### KINO 6352: Analysis of Teaching and Coaching Behavior (UTPB)

Students will survey a variety of instructional models available to teachers and coaches. They will learn to match the variety of behavioral assessment tools to the instructional model and the task at hand. They will apply behavioral assessment tools in learning to observe, describe, code, and analyze the behaviors that they are observing in physical education students, teachers, student athletes, coaches, spectators, or officials of an activity.

### KINO 6354: Early Childhood Physical Activity (UTEP)

A study of physical activity in early childhood and its influence on child development to include types of physical activity and its relationship to emotions, health, social and physical growth and development.

### KINO 6356: Issues in Adapted Physical Activity (UTA/UTPA)

This course is specifically designed to expand the roles and responsibilities of the teacher/coach in the current and the future inclusion settings. Students will analyze and evaluate issues, trends and research findings pertinent to adapted physical activity for students with disabilities.

#### KINO 6360: Administration of Physical Education and Athletic Programs (UTPB)

Students will investigate and apply administrative theories related to the administration of sport and physical education programs. Additionally, students will establish their program philosophy, perform budgeting and expenditure of funds, assignments, and examine legal issues associated with the administration of sport and physical education programs.

### KINO 6370: Introduction to Statistics (UTPB)

This course is designed for graduate students who require a basic understanding of statistics but have not previously had a statistics course. The course covers

basic descriptive statistics, elementary probability, one- and two-population mean and variance comparisons, and an introduction to ANOVA, simple linear regression, and correlation. Graduate standing and an undergraduate course in mathematics at the level of college algebra or higher are assumed.

### KINO 6372: Research Methods (UT Tyler/UTPA/UTPB/UTSA)

The students will explore various types of research used in Kinesiology. The students will then develop a research question, formulate methodology and related statistical and measurement concepts, and write a research report. **Prerequisites:** None; a statistics course (e.g., KINO 6370) is highly recommended.

### KINO 6380: Nutrition, Health and Disease (UT Tyler/UTSA)

Reinforcement and application of nutritional facts and concepts through study of research, analysis of diets and critiquing of nutritional information from a variety of sources. This course or an equivalent is a prerequisite for KINO 6382: Sports Nutrition.

### KINO 6382: Sports Nutrition (UT Tyler)

Study of nutrition as it relates to optimal training and performance of sports activities. **Prerequisite:** KINO 6380: Nutrition, Health and Disease or equivalent graduate or upper-division undergraduate general nutrition course.

### Nursing (NURS)

### NURS 5111: The Advanced Practice Role

Study of the Advanced Practice Nurse (APN) role. The evolution of the role, current and continuing issues relevant to advanced practice nursing, and clinical practice issues related to health promotion and disease prevention.

## NURS 5222: Diagnostic Methods and Procedures for Advanced Practice

This course is for APN students to learn clinical decision making for selecting appropriate tests, procedures, and interpretation of diagnostic test results. Students will use evidence based research to appropriately gather, interpret and manage diagnostic data. (2:1:3)

### NURS 5308: Contemporary Healthcare Ethics

Provides a thorough grounding in ethical theories and principles as reflected in current health care issues and policies. Students are introduced to a variety of frameworks for ethical decision making and policy analysis. Current trends in the political, economic, and legal spheres in the contemporary health care arena are analyzed through the use of case studies.

### NURS 5309: Congregational Nursing

Prepares nurses to deliver holistic, primary care in all types of congregations and organizations. Based on the Parish Nursing concept, the congregational nurse's practice responds to the unique health care needs and priorities of an individual congregation. Congregational nurse functions include educator, counselor, referral agent, care coordinator and advocate. **Prerequisite:** Baccalaureate degree in nursing.

### NURS 5318: Women's Health Issues

Covers a wide variety of issues relating to women's health and is available to all majors. A holistic approach is used to investigate issues impacting the health of women. The course projects include a research proposal for an issue relating to women's health.

### NURS 5312: Nursing Theory

Provides an introduction to the nature of scientific explanation and inquiry. Origins of and strategies for theory development in nursing are examined for their importance in guiding the development of the profession. Nursing theory is analyzed as a foundation for nursing practice and research. **Prerequisite:** Admission to the MSN program.

### NURS 5313: Emergency Nursing

Designed as an exploration of advanced theories and practice of emergency nursing specifically dealing with patients experiencing medical, trauma, pediatric, obstetric, or psychiatric emergency situations. Course projects include practicum experience. **Prerequisite:** Baccalaureate degree in nursing.

### NURS 5314: Nursing Care of the Perioperative Client

Explores the advanced theories and practice of perioperative nursing. Course projects include a nursing research proposal related to the perioperative area. **Prerequisite:** Baccalaureate degree in nursing. (Credit: 2-1)

### NURS 5315: Assessment of Nursing Management

Utilizes assessment and planning strategies to effect change. The purpose of the course is to enable the professional nurse to make sound clinical and administrative decisions based on a theoretical framework. Theories of management, leadership, change, and behavior modification are utilized to facilitate the identification of needed change. The student will apply didactic content in a variety of practice settings and with a selected clinical population. **Prerequisite:** NURS 5308, NURS 5312, NURS 5320, NURS 5356, or consent of instructor. (Credit: 2:1)

### NURS 5320: Research Design

Builds on content presented in undergraduate research. Research is evaluated for its usefulness in contributing to nursing's scientific knowledge base. The conduct of nursing research, application, and utilization are discussed and analyzed. Elements of a grant proposal will be discussed. The course culminates in the development of a research proposal. **Prerequisite:** Admission to the MSN program; HECC 5317 or equivalent.

# NURS 5323: Holistic Health: The Art and Science of Caring and Healing

Explores the application of holistic philosophy and theory into practice. Included will be seminar discussion, demonstration, and experiential sessions on holistic health assessment and alternative treatment modes to promote health and healing in practice and daily living. Course projects include analysis of current and projected trends in the provision of health care, the role of the informed consumer of health care, comparative studies of traditional versus alternative medicine, and research based holistic health care. Open to all majors; graduate status required.

### NURS 5324: Health Care Informatics

Prepares the student to apply computer technology to the management of individuals, groups or organizations in the roles of healthcare practitioner, administrator, educator and researcher. Emphasis is on becoming knowledgeable and competent with available resources useful in patient care and educational settings. The student also develops additional skills in using a variety of software applications through completion of assignments. **Prerequisite:** Proficiency in computer skills, graduate status required, or CI.

### NURS 5326: Implementation of Nursing Management

Focuses on implementation of strategies for change while analyzing the probable consequences of alternative plans and actions. Building on the content in NURS 5315, the purpose of this course is to facilitate the integration of specific goals and activity plans with effective strategies and resources to effect desired outcomes within the specified settings and with identified clinical populations. Content emphasizes leadership/management theories, functions, skills and strategies necessary to the change process, the nursing process, and the human caring process. Content includes: preparing the environment for change, professional and organizational communications, policy development, information systems, obtaining and utilizing human/fiscal resources, participating in job re-engineering, contingency contracting, negotiating and delegating. **Prerequisite:** NURS 5315 or CI. (Credit: 2:1).

### NURS 5327: Nursing Education Curriculum Development

Theories and procedures of educational program and course development applied to nursing education. Includes philosophical values, educational concepts, and theories of learning used to link nursing education to standards of nursing practice. Guides students to develop curriculum plans and propose related teaching and evaluation strategies. **Prerequisite:** NURS 5308, NURS 5312, NURS 5320, NURS 5356 or CI.

### NURS 5328: Evaluation in Nursing Education

Assessment of theories and strategies of measurement and evaluation as they apply to nursing education. Combines theories of measurement and evaluation with outcomes based approaches to promote safe effective professional nursing practice. Experiential exercises in the development, use, and critique of measurement and evaluation methods to classroom and clinical learning situations as well as to nursing education program evaluation. **Prerequisite or Co-requisite:** NURS 5327.

### NURS 5329: Nurse Educator Role Strategies and Practicum

An exploration of the nurse educator role in structuring teaching strategies that assure effective undergraduate student outcomes in regard to individual and group learning, safe clinical practice, and a commitment to lifelong learning. Nurse educator practicum placements are arranged within pre-licensure nursing education programs. **Prerequisites:** NURS 5327 and NURS 5328. (Credit 0:3).

### NURS 5330: Evaluation of Nursing Management

Focuses on the utilization of evaluation strategies to determine the achievement of stated goals. The purpose of this course is to facilitate the analysis of multiple methods of measurement, appraise the outcomes of change (including the application of human caring theory into practice), and apply and predict the consequences of change to current and future trends in health care. **Prerequisite:** NURS 5326 or consent of instructor. (Credit: 2:1).

### NURS 5334: Professional Scholarship

Facilitates synthesis of previous knowledge of theory, research and professional role into a framework for advanced evidence-based practice. The contracted project may include but is not limited to the following: the development of a scholarly paper, development of a special project, or grant proposal in collaboration with a role mentor. All project reports will be disseminated into the public domain. **Prerequisites:** NURS 5308, NURS 5312, NURS 5320, NURS 5356 or CI.

### NURS 5336: Pediatric Environmental Health

An introduction to environmental health and how chemical and physical agents may affect children's health. Included are the health effects of specific agents and environments with an emphasis on the special susceptibility of children. A term paper is required. **Prerequisite:** CI or consent of graduate advisor.

### NURS 5338: Family Theory for Nurses

Examination of theories of family and the dynamics influencing family life, role behavior, coping, change, and response to crisis. Emphasis is on assessment and analysis of family dynamics as applied to the nursing role. **Prerequisite:** graduate standing.

### NURS 5340: Advanced Perinatal Clinical Practice

Expands on the concepts of undergraduate perinatal coursework with development of advanced knowledge and skills in perinatal clinical areas. Emphasis is on the use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** CI.

### NURS 5141-5641: Special Topics in Nursing

The study of a variety of current topics in nursing practice. May be repeated for credit when content changes. **Prerequisite**: Consent of associate dean.

### NURS 5342: Advanced Maternal Infant Clinical Practice

Expands on the concepts of maternal infant coursework with development of advanced knowledge and skills in maternal infant clinical areas. Emphasis is on the use of multi-dimensional assessment and care planning focusing on highlevel clinical judgment and decision-making abilities. **Prerequisite:** CI.

### NURS 5344: Advanced Neonatal Clinical Practice

Expands on the concepts of neonatal coursework with development of advanced knowledge and skills in neonatal clinical areas. Emphasis is on the comprehensive use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** CI.

### NURS 5345: The Older Adult: Dimensions of Care

Provides an opportunity for synthesis of selected issues related to health care of the older adult in a societal context. The focus is on health status and quality of life. Participants will review issues of aging and health care in both local and national society through the professional literature, recent research, and interaction with guest faculty of older adults. Course projects lead to synthesis and application of research and leadership information related to health care of the older adult in a societal context.

### NURS 5346: Advanced Medical-Surgical Clinical Practice

Expands on the concepts of undergraduate medical-surgical coursework with development of advanced knowledge and skills in medical-surgical clinical areas. Emphasis is on the comprehensive use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** CI.

### NURS 5348: Advanced Critical Care Clinical Practice

Expands on the concepts of advanced medical-surgical coursework with development of advanced knowledge and skills in critical-care clinical areas. Emphasis is on the comprehensive use of multi-dimensional assessment and care planning focusing on high-level clinical judgment and decision-making abilities. **Prerequisite:** NURS 5346.

### NURS 5350: Advanced Pathophysiology

Focus is on pathological conditions encountered in clinical practice across the life span of clients. Emphasis is placed on regulatory and compensatory mechanisms as they relate to commonly occurring diseases.

### NURS 5352: Advanced Health Assessment

Application of advanced health assessment principles and skills for comprehensive examination of clients. Focus will be on common deviations from normal. Populations across the life span will be included. **Prerequisite:** Basic health assessment course. (Credit: 1:2)

### NURS 5354: Advanced Nursing Pharmacotherapeutics

Knowledge and application of advanced pharmacotherapeutic principles related to the health needs of clients. Focus will be on pharmacotherapeutic modalities utilized by advanced practice nurses.

### NURS 5356: Health Promotion in Individuals and Communities

Focuses on the health care provider's role in promoting health across the lifespan and at multiple levels. Explores various models of health promotion with emphasis on application of health promotion strategies. Considers challenges to creating a healthy society. Provides the opportunity to apply concepts of health promotion in a clinical/practice setting. **Prerequisite:** Admission to the MSN program. (Credit 2:1).

### NURS 5358: Online Learning Practicum

Focus is on the development and implementation of online learning experiences for nursing students. Involves application of learning theories, appropriate learning strategies, and development and management of online courses. The lab/practicum includes skills laboratory sessions and in-program practicum placements. **Prerequisite**: NURS 5327, NURS 5328. (Credit 1:2)

### NURS 5364: Family Nurse Practitioner Primary Care I

Study of major concepts and therapies required in the development, implementation and evaluation of primary healthcare. Clinicals focus on application of nursing theory, pathophysiology and epidemiological concepts and nursing therapies and skills to provide primary health care. (1:2)

### NURS 5366: Family Nurse Practitioner Primary Care II

Study of nursing role components critical to primary healthcare. Identification of facilitators for and barriers to the implementation of primary healthcare. Clinical practice involves collaboration and implementation of primary healthcare role in selected healthcare settings. (1:2)

### NURS 5372: Pediatric Nurse Practitioner Primary Care I

Designed to develop theoretical and research-based knowledge of child health issues in the context of family and cultures. The course develops advanced practice skills in comprehensive assessment, as well as, management strategies reflecting evidence-based practice. (1:2)

### NURS 5374: Pediatric Nurse Practitioner Primary Care II

Designed to further develop knowledge of diagnosis, treatment, and evaluation of pediatric patients with acute and chronic health problems. The course develops advanced practice skills in comprehensive assessment, as well as management strategies reflecting evidence-based practice. (1:2)

### NURS 5376: Geriatric Nurse Practitioner Primary Care I

Study of the major concepts essential to the development, implementation and evaluation of quality geriatric care. Clinicals focus on application of nursing theory, pathophysiological concepts, and exploration of nursing the rapies, skills and techniques.  $\left(1{:}2\right)$ 

### NURS 5378: Geriatric Nurse Practitioner Primary Care II

Study of the nursing role components basic to collaboration and provision of geriatric care, including family dynamics related to the extended family and identification of families at risk. Clinical practice focuses on provision of care in a variety of settings. (1:2)

### NURS 5380: Professional Seminar

Courses with a variety of topic areas: each course will address content areas of current issues important to professional nurses. May be repeated once for credit when content changes.

### NURS 5395: Thesis

The research project is designed and implemented and presented for defense. **Prerequisites:** NURS 5308, NURS 5312, NURS 5320, NURS 5356 or permission of course instructor.

### NURS 5442: Acute Care Nurse Practitioner Adult Care I

This course is designed to develop a beginning theoretical and research based knowledge of diagnosis, treatment, and evaluation of adults with acute/chronic health problems. Emphasis will be placed on applying this knowledge to the management of patients with disorders of selected body systems. (1:3)

### NURS 5542: Acute Care Nurse Practitioner Adult Care II

This course is designed to build on major components critical to the knowledge of diagnosis, treatment, and evaluation of adults with acute and chronic health problems. Clinical practice focuses on research-based decision-making process in close collaboration with preceptors. (1:4)

### NURS 5660: Family Nursing Practitioner Practicum

A clinically focused practicum for individuals pursuing expectations beyond basic graduate degree requirements. (0:6)

### NURS 5662: Acute Care Nurse Practitioner Practicum

Acute Care Nurse Practitioner IV: Role and Practicum (6:1). This course emphasizes clinical practice. Clinical activities allow for immersion in advanced role. Function and responsibility of selected topics of the advanced practice role are addressed. (0:6)

### NURS 5664: Pediatric Nurse Practitioner Practicum

A clinically-focused practicum for individuals pursuing expectations beyond basic graduate degree requirements. Variable credit of 3 to 6 hours. (0:6)

### NURS 5666: Geriatric Nurse Practitioner Practicum

A clinically-focused practicum for individuals pursuing expectations beyond basic graduate degree requirements. Variable credit of 3 to 6 hours. (0:6)

### **Nursing Doctoral**

### NURS 6310: Philosophy of Science

The origins and development of philosophy and science are explored. Includes analysis of current state of the science, ways of knowing, models of knowledge generation, criteria for causation, and argumentation. **Prerequisite:** Acceptance into the doctoral program.

### NURS 6312: Theory Construction and Evaluation

In-depth analyses of theories applicable to nursing science and transcultural health are conducted. Concept analysis and development and critique of conceptual models will lay the foundation to guide programs of nursing research. **Prerequisite:** NURS 6310.

### NURS 6320: Data Management

Strategies for management of quantitative and qualitative data are analyzed. Data management software packages are utilized for the creation and analysis of data files. Primary and secondary data sets for research are managed. **Prerequisite:** Basic graduate level statistics. **Prerequisite:** CI.

### NURS 6322: Advanced Statistics

Multivariate techniques in health care research are studied. Aspects of complex research designs, including model testing, decision theory, and advanced statistical techniques are applied. **Prerequisite**: NURS 6320.

### NURS 6330: Quantitative Research Designs & Methods

Advanced quantitative research that integrates methodology, design, measurement, analysis, and interpretation. **Prerequisites:** NURS 6312; NURS 6322 or concurrent enrollment.

### NURS 6333: Qualitative Research Designs & Methods

Advanced qualitative research that integrates classical and developing philosophical traditions, methodology, design, analysis, and interpretation is studied. **Prerequisite:** NURS 6310

### NURS 6337: Advanced Research Design & Methods

Theoretical, methodological, and procedural aspects of data generation and measurement are presented. Measurement theory, concept operationalization, and instrument development and testing for both qualitative and quantitative methods are explored. **Prerequisites:** NURS 6322, NURS 6330, NURS 6333.

### NURS 6342: Scholarship in Nursing

Elements of professional presentation, writing for publication, and grant writing are examined, including exploration of priorities for funding and publication. Scientific integrity in grantsmanship and dissemination of knowledge is emphasized. **Prerequisite:** CI.

### NURS 6350: Research in Transcultural Health

Research issues within a cultural milieu are explored. Emphasis on culturally relevant scholarship, knowledge, and technology to improve health status of diverse communities. **Prerequisite:** acceptance into the doctoral program

### NURS 6352: Health Care Policy Development

The role of nurse leaders in research to shape health care policy is explored. Impact of economic, socio-political, and other forces on policy formulation and access to care are considered. **Prerequisite:** acceptance to the doctoral program.

### NURS 6354: The Nurse as Educator

Educational principles, learning theories, and pedagogical approaches are utilized to develop culturally sensitive teaching strategies for diverse student and community-based populations. Solutions to educational access and nursing workforce situations will be explored and studied. **Prerequisite:** acceptance to the doctoral program.

### NURS 6356: Research Practicum

Application of health concepts through immersion in a selected setting provides guided experience in research under supervision of faculty mentor. **Prerequisites:** NURS 6337, NURS 6350, NURS 6352, NURS 6354.

### NURS 6660: Dissertation

Original research contributing to the body of knowledge in nursing is conducted under the direction of a major professor. **Prerequisite**: Advancement to candidacy.

### NURS 6382: Special Topics

The study of a variety of current topics, emerging issues, related subjects or specialized content not represented in the main curriculum. May be repeated for credit when content changes. **Prerequisite:** Enrollment in doctoral program or with permission of Director of Doctoral Program.

### NURS 6380: Professional Seminar

Courses will cover a variety of current issues relevant to nursing research and conducted in seminar format. May be repeated for credit when content changes. **Prerequisite:** Enrollment in doctoral program or with permission of Director of Doctoral Program.

### Physical Education (PYED)

### PYED 5352: Topics in Instructional Styles

In-depth study of selected topics related to styles of teaching in health or physical education (e.g., theoretical limits, cognition, individual instruction, and decision-making). May be repeated once for credit when content changes.

### PYED 5354: Topics in Curriculum

In-depth study of selected topics related to curriculum in health or physical education. May be repeated once for credit when content changes.

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