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Message from the President

At Texas A&M University-Corpus Christi, everyone is committed to your success. We understand that your college experience extends beyond the classroom, and we are dedicated to ensuring you have everything you need to focus on your studies, gain valuable experiences and knowledge, and participate in a vibrant and active campus life.

We offer opportunities for students to work directly with faculty on important research that has a positive impact in our communities. Our renowned faculty work on innovative solutions to regional, national and international issues through the Harte Research Institute for Gulf of Mexico Studies, the Conrad Blucher Institute, and the Lonestar UAS Center of Excellence and Innovation. We also offer opportunities to develop leadership skills in every academic discipline.

We are committed to providing an excellent educational environment that embraces diversity, offers a wide variety of student organizations and activities including NCAA Division I athletics, and encourages involvement in our community. We believe in making an impact in your life and look forward to the impact you will make after you become part of our Islander family.

Sincerely,

Kelly M. Miller
President/CEO
Texas A&M University-Corpus Christi
GENERAL INFORMATION

- Campus Facilities (p. 4)
- Directory of Campus Offices and Services (p. 5)
- The University (p. 6)

Campus Facilities

Located on its own 240-acre island, the University features modern classroom buildings, support facilities, and student apartments and residence halls. Surrounded by the waters of Corpus Christi and Oso Bays, the campus is approximately ten miles from downtown Corpus Christi. Plazas, landscaping, and sculptures enhance the island campus. The University is also developing an additional 137 acres located off of Ennis Joslin Road.

Mary and Jeff Bell Library

The Mary and Jeff Bell Library is the University’s major resource for research and study. The Library provides access to over 970,000 books, e-books, microforms, and government publications, and maintains subscriptions to more than 63,000 journals and periodicals. The Library also has a strong media collection, with access to approximately 44,500 streaming videos, 3,200 DVDs, and 2.5 million streaming audio tracks. Over 275 online databases provide additional support for general and discipline-specific research and learning.

The Special Collections and Archives Department provides significant, unique resources for scholars. The department houses rare books and archives dealing primarily with the life, history and culture of Corpus Christi and South Texas, as well as other books and manuscripts that require special housing and handling. These materials are available to individual students, university classes, and researchers under special and appropriate conditions within the department.

The Library is also an authorized depository for federal publications. As a depository the library provides the university and general public with access to government information in many formats.

The Library actively participates in national, state, and regional networks, commercial information services, area library agreements and interlibrary loan arrangements that provide access to materials not available on the Texas A&M University-Corpus Christi campus. Through the statewide TexShare cooperative library program, students and faculty have borrowing privileges at many other academic and public libraries in Texas.

Librarians assist individuals in locating, using, and evaluating information resources that support and enhance curriculum and research. Librarians also instruct classes in the use of information resources in specific subject areas. Librarians review resources and services regularly to ensure that both collections and services meet changing curricular needs and support the development of new academic programs.

Computing Resources

Student computing facilities at Texas A&M University-Corpus Christi are part of the campus network. Computer laboratories available for student use are located in the library and several other buildings. Various types of personal computers, such as Macintosh, RISC, and PC type; full-page scanners; laser printers; and graphic stations make up the laboratory machinery. Most computer laboratories are open over 85 hours per week, and are staffed with student lab assistants who provide support in various programs. The laboratories are equipped with a wide range of software applications, such as word processors, spreadsheets, graphics programs, programming languages, and specialized software applications that support individual classes. Internet access and e-mail are available for university students either on or off campus. Wireless access is available. Remote access to the network is provided. Students receive assistance via computer help sheets, online tutorials and a helpdesk.

Student Services Center

In the round building near the center of campus, students can find the Offices of Recruitment and Admissions, Registrar, Financial Assistance and Veterans Affairs, as well as the Business Office, Academic Testing Center, and other units serving students.

Classroom Facilities

Classroom facilities are located in the Center for Instruction, Center for the Sciences, Science and Technology Building, Center for the Arts, Bay Hall, Tidal Hall, Island Hall, and the Michael and Karen O’Connor Building. Many teaching areas include state-of-the art audio-video and computer equipment.

Visual and Performing Arts Facilities

The Performing Arts Center features a 1500-seat concert hall where local, national, and international artists perform. The Center for the Arts houses the Warren Theatre (a 275 seat, continental-style auditorium), the Wilson Studio Theatre (an experimental theatre), and the Weil Gallery. Also affiliated with the University is the Art Museum of South Texas, located in downtown Corpus Christi.

University Center

The University Center provides facilities and services for students, faculty, staff, and guests of the University. The center contains student services offices, space for student organizations and student activities, food services, the bookstore and other shops, the campus post office, a branch bank and study lounges, meeting rooms, and entertainment areas.

Conrad Blucher Institute for Surveying and Science

The Conrad Blucher Institute for Surveying and Science houses research laboratories and provides research and professional development for surveyors, science education and surveying related research.

Carlos F. Truan Natural Resources Center

University programs and state agencies focusing on natural resources are housed in the Carlos F. Truan Natural Resources Center.

Dugan Wellness Center

The Dr. Jack and Susie Dugan Wellness Center includes a gymnasium, free weights, weight machines, cardiovascular exercise equipment (treadmills, elliptical trainers, steppers and bikes), multi-purpose group exercise rooms, and offices for the Recreational Sports Department and Intercollegiate Athletics Department.
Harte Research Institute

This research facility houses the endowed Harte Research Institute for Gulf of Mexico Studies, whose mission is to support and advance the long-term sustainable use and conservation of the Gulf of Mexico.

Blanche Davis Moore Early Childhood Development Center and Math and Science Resource Center

The Blanche Davis Moore Early Childhood Development Center serves as a public school for area children and as a university teaching laboratory and research center. Children attending the school are selected from a stratified random sample. Housed adjacent to the Blanche Davis Moore Early Childhood Development Center is the Math and Science Resource Center which addresses the nation-wide shortage of math and science teachers through programs for teachers and students.

Directory of Campus Offices and Services

Admissions

Office
Office of Recruitment and Admissions
Student Service Center (SSC 100)
(361) 825-7024
email: admiss@tamucc.edu

Financial Assistance

Office
Office of Financial Assistance
Student Services Center (SSC) 115
(361) 825-2338

Library Services

Office
Mary and Jeff Bell Library
(361) 825-2643

Tuition and Fees

Office
Business Office
Student Services Center (SSC) - 1st floor
(361) 825-2600

Testing

Office
Office of Academic Testing
Student Services Center (SSC) 210
(361) 825-2334

Veterans Educational Benefits

Office
Veterans Affairs Office
Student Services Center (SSC) 101
(361) 825-2331

Police

Office
University Police
Physical Plant
(361) 825-4444
Non-Emergency
(361) 825-4242

Recreational Sports

Dugan Wellness Center
(361) 825-2454

University Center and Student Activities

University Center (UC) 216
(361) 825-2707

University Counseling Center

Driftwood Hall 106
(361) 825-2703

University Health Center

Sandpiper Hall 105
(361) 825-2601

Transcripts; Class Schedules

Office
Registrar’s Office
Student Services Center (SSC) 100
(361) 825-2624

To be continued...
The University

Texas A&M University-Corpus Christi is committed to becoming one of the leading centers of higher education in the Gulf of Mexico region while serving the intellectual, cultural, social, environmental, and economic needs of South Texas. As a result, Texas A&M University-Corpus Christi will invigorate and strengthen the region and state through its educational programs, research initiatives, and outreach efforts.

Institutional Vision and Mission

Vision

Texas A&M University-Corpus Christi is committed to becoming one of the leading centers of higher education in the Gulf of Mexico region while serving the intellectual, cultural, social, environmental, and economic needs of South Texas. As a result, Texas A&M University-Corpus Christi will invigorate and strengthen the region and state through its educational programs, research initiatives, and outreach efforts.

Mission

Texas A&M University-Corpus Christi is committed to becoming one of the leading centers of higher education in the Gulf of Mexico region while serving the intellectual, cultural, social, environmental, and economic needs of South Texas. As a result, Texas A&M University-Corpus Christi will invigorate and strengthen the region and state through its educational programs, research initiatives, and outreach efforts.

Institutional History

The island campus of Texas A&M University-Corpus Christi has been a setting for higher education since 1947. That year, Ward Island became the home of the University of Corpus Christi (UCC), an institution affiliated with the Baptist General Convention of Texas. The UCC campus was developed on land previously used by the U.S. Navy as a radar training facility.

In 1970, Hurricane Celia severely damaged the college campus. The following year, UCC and the Baptist General Convention took steps to end their affiliation. Concerned about higher education in Corpus Christi, a coalition of civic leaders sought local support as well as state legislation to convert the campus of UCC to a state-supported institution with an expanded curriculum.

In 1971, the 62nd session of the Texas Legislature authorized the creation of a state-supported institution of higher education in Corpus Christi. The Board of Directors of the Texas A&I University System was authorized to establish an upper-level university and to prescribe courses for the new institution at the junior, senior, and graduate levels leading to both bachelor’s and master’s degrees.

Funding was approved by the legislature to initiate planning for the university. The citizens of Corpus Christi approved a bond issue to purchase the campus of the University of Corpus Christi on Ward Island. Subsequently, the campus was given to the State of Texas as a site for the new state-supported university. Civic leaders in Corpus Christi also launched a successful public fund raising campaign to provide local financial support for the fledgling university. On September 4, 1973, several months after UCC completed its final classes, Texas A&I University at Corpus Christi opened its doors with an initial enrollment of 969 students.

In 1977, the legislature changed the name of the institution to Corpus Christi State University. The name of the University System, which also included Laredo State University and Texas A&I University, was changed the same year to the University System of South Texas (USST).

In 1989, the Texas Legislature abolished the University System of South Texas and merged Corpus Christi State University and the other two USST universities into The Texas A&M University System. In the same year, the legislature approved the expansion of Corpus Christi State University to a four-year comprehensive university, with enrollment of freshmen and sophomores to begin in fall 1994. In 1992, the role of the institution was expanded further when the Texas Higher Education Coordinating Board authorized the University to offer its first doctoral degree program. Another milestone occurred in 1993 when The Texas A&M University System Board of Regents renamed the institution Texas A&M University-Corpus Christi.

The arrival of freshman and sophomore students in 1994 marked the transformation of the institution to a four-year university. Since then, student enrollment, facilities, and program offerings for both undergraduate and graduate students have continued to expand. In 2008, the City of Corpus Christi donated approximately 137 acres of land near the island campus to ensure adequate space for future growth.
The student is held responsible for knowing and abiding by University degree requirements and other University policies when necessary. The student must seek advice about degree programs and for taking courses in the proper sequence to ensure orderly progression of work. The student must seek advice aboutdegree requirements, for enrolling in courses that fit into the degree that they are seeking. However, the final and ultimate responsibility for understanding and following the degree requirements rests with the students themselves. Each student is held responsible for knowing degree requirements, for enrolling in courses that fit into degree programs and for taking courses in the proper sequence to ensure orderly progression of work. The student must seek advice about degree requirements and other University policies when necessary. The student is held responsible for knowing and abiding by University regulations regarding the standard of work required to continue in the University, as well as those dealing with academic integrity, scholastic probation, suspension, and dismissal. Additionally, the student is expected to comply with the rules in the Student Code of Conduct, as well as the processes in the latter, which are administered by the Office of Student Affairs. The Student Code of Conduct are accessible at http://www.tamucc.edu/~students/.

The University reserves the right to require a student to withdraw at any time, as well as the right to impose probation on any student whose conduct is unsatisfactory. An admission on the basis of false statements or documents is void upon discovery of the fraud, and the student is not entitled to any credit for work that the student may have done at the University. Upon dismissal or suspension from the University for cause, there will be no refund of tuition and fees. The balance due the University will be considered receivable and will be collected.

Equal Educational/Employment Opportunity

With respect to the admission and education of students; the availability of student loans, grants, scholarships and job opportunities; the employment and promotion of teaching and non-teaching personnel; and the student and faculty activities conducted on premises owned or occupied by the University, Texas A&M University-Corpus Christi shall not discriminate either in favor of or against any U.S. citizen on the basis of race, creed, color, sex, age, national origin or disability.

Catalog Subject To Change

The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student, or faculty or staff member of Texas A&M University-Corpus Christi or The Texas A&M University System. This catalog is for informational purposes only. The University reserves the right to change or alter any statement herein without prior notice. This catalog should not be interpreted to allow a student that begins his or her education under the catalog to continue the program under the provisions in the catalog.

Admissions

Students may apply for admission to graduate study under one of the following classifications:

1. Degree Seeking
   a. Regular Status
   b. Conditional Status
2. Graduate Certificate Seeking
3. Transient
4. Non-Degree Seeking

See "Graduate Student Admission Classifications" below for an explanation of these classifications.

Note: A student holding a baccalaureate or higher degree who intends to seek an additional bachelor’s degree or an additional undergraduate major or minor, or who intends to take undergraduate course work required for Texas public school teacher certification, should seek admission as a postbaccalaureate student. Postbaccalaureate students are exempt from graduate admission requirements and may enroll in undergraduate-level courses (numbered below 5000) only. For
information on postbaccalaureate admission requirements, see the “Admissions” section of the Undergraduate Catalog.

Minimum Required Documents

Students seeking admission to the University for graduate study must forward all relevant application materials to:

Office of Recruitment and Admissions
Texas A&M University-Corpus Christi
6300 Ocean Drive Unit 5774
Corpus Christi, TX 78412-5774
Telephone: 361-825-7024 or 1-800-4-TAMUCC (1.800.482.6822)

The following documents are required as part of the application process:

1. A completed application for admission. (The application must be completed online through the following web site: http://gradschool.tamucc.edu.) The completed application must include the applicant’s statement of educational and professional goals.
2. A $50, nonrefundable, application fee. (For international applicants, the nonrefundable application fee is $70, paid in U.S. currency.)
3. Official transcripts documenting all undergraduate and graduate course work taken at any accredited college or university attended. Official transcripts must be sent directly to Texas A&M University-Corpus Christi from the granting institutions.
4. Additional materials as required by the degree program to which the student is applying. Consult the section of the catalog pertaining to the specific degree program for a listing of additional requirements. Specific programs may require letters of recommendation, writing samples, portfolios, official test scores for the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT), or other materials. If GRE or GMAT scores are required, they generally must be from a test date within five years of the date on which the application form was received by the College of Graduate Studies. This recency requirement may be waived, e.g., if GRE records are on file from an earlier application, with the approval of the Graduate Dean.

Additional Documents for International Students

In addition to the documents listed above, international students must also submit the following as part of their applications:

1. Official test scores (see below for minimum scores) on the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS), unless the student has earned a baccalaureate degree from an accredited institution of higher education in the United States, an institution in a country where English is the only official language, or has successfully completed a TAMUCC affiliated English as a Second Language International (ESLI) program.
   - TOEFL: A minimum paper-based score of 550, the equivalent computer-based score of 213, or the equivalent internet-based score of 79, is required. The institution code for Texas A&M University – Corpus Christi is 6849.
   - IELTS: The minimum score is an overall band score of 6.5 on the Academic Examination. IELTS General Training results are not acceptable. There is no institution code for the IELTS examination. In addition, applicants native to one of the following countries whose official language is English will be exempt from the TOEFL or IELTS requirements:
     • American Samoa
     • Antigua and Barbuda
     • Australia
     • Bahamas
     • Barbados
     • Belize
     • Canada (all provinces except Quebec)
     • Dominica
     • Grand Cayman
     • Grenada
     • Guyana
     • Ireland
     • Jamaica
     • Liberia
     • New Zealand
     • Nigeria
     • Saint Kitts and Nevis
     • Saint Lucia
     • Saint Vincent and the Grenadines
     • Solomon Islands
     • Trinidad and Tabago
     • Turks and Caicos
     • United Kingdom

Test takers should provide the following address to have their official score sent to Texas A&M University – Corpus Christi: College of Graduate Studies
Texas A&M University – Corpus Christi
6300 Ocean Dr., Unit 5843
Corpus Christi, TX 78412-5843

2. Notarized Affidavit of Support (or I-34 form) certifying ability to finance study in the U.S. The Affidavit of Support must be completed with U.S. currency figures only.

3. Copy of current visa. (For international applicants residing in the U. S.)

4. Official transcripts and diplomas/degree certificates from international colleges and universities with either an original signature of a school official or an original school seal. If these are not provided in English by the institutions, official translations must be provided.

5. All official foreign transcripts are evaluated by the College of Graduate Studies and, in some cases, may require an external evaluation.

In addition, all international students are required to be covered by The Texas A&M University System’s Student Health Insurance Plan or to have equivalent insurance coverage. Students without insurance will not be permitted to register for classes. For information, contact the Coordinator, International Student Admissions in the Office of International Education.

International students are required prior to the first day of classes or move-in to campus housing, whichever occurs first, to provide documentation from a U.S. health care provider of a negative TB skin test (Mantoux tuberculin test) or negative chest X-ray. The report should be submitted directly to the University Health Center. In accordance with the guidelines from the Center for Disease Control, USA, a skin test is required even if the student has had a BCG (Bacille Calmette-Guerin)
University Graduate Admission Criteria

The following guidelines apply to degree seeking and certificate seeking applicants to graduate study.

To be admitted to graduate studies, an applicant must hold a bachelor’s degree from an accredited institution of higher education in the United States (or an equivalent foreign institution). The applicant must show promise of success in graduate studies. Decisions regarding admission to graduate study will be based on a review of all application materials. Factors that may be considered include the student’s grade point average (GPA), the relevancy of previous course work, the applicant’s demonstrated commitment to the field of study, and other criteria identified by the degree program. The overall strength of the record will be used to accept or deny an individual.

The requirement to hold a bachelor’s degree does not apply to students enrolled in the RN-MSN option in Nursing.

In order to be considered for a graduate program, a minimum last 60 hour GPA of 2.5 is required. Some programs may have higher GPA requirements; review specific program information elsewhere in this catalog for additional GPA requirements. The GPA calculation is normally based on the last 60 semester credit hours (or equivalent) of undergraduate work and any previous work in a graduate or professional school. The GPA is calculated for the most recent 60 semester hours completed at the time of application. Grades for the entire semester within which the 60th hour appears on the transcript will also be included in the calculation, even if the hours total more than 60. Some programs may also consider the overall undergraduate or graduate degree GPA. For more information, see the catalog section for the specific program.

Students who are near the completion of the initial graduate degree may apply to begin a subsequent graduate degree. However, students may not be concurrently admitted to or enrolled in more than one graduate degree program at a time.

Right to an Academic Fresh Start Legislation

The “Right to an Academic Fresh Start” legislation (Section 51.931 of the Texas Education Code) entitles residents of this state to seek admission to public institutions of higher education as undergraduate students without consideration of courses undertaken ten or more years prior to enrollment. If an individual has earned a baccalaureate degree under the “academic fresh start” law and applies for admission to a postgraduate or professional program, the University, in evaluating the applicant for admission to a graduate program, will consider only the applicant’s grade point average established by the course work completed under this law, along with other standard admissions criteria discussed in this catalog.

(For information on the Right to an Academic Fresh Start, as it applies to undergraduates, see the “Admissions (http://catalog.tamucc.edu/undergraduate/admissions/)” section of the Undergraduate Catalog or contact the Office of Recruitment and Admissions.)

Degree Program Admission Criteria

In addition to the University requirements described above, individual graduate degree programs may have higher or alternate requirements. See the graduate program section of the catalog for descriptions of the specific entrance requirements. Admission decisions to the various graduate programs are made by the college offering the program.

Graduate Student Admission Classifications

Graduate students are admitted in one of the following graduate classifications:

1. Degree Seeking.
   a. Regular Status (admitted without conditions)
      This classification includes students who have met all University and degree-specific admission requirements and have been unconditionally admitted to a graduate degree program by the program offering the degree.
   b. Conditional Status
      This classification includes students who have been admitted into a particular degree program but only conditionally since they have not yet met all admission requirements. Reasons for conditional status may include:
      i. application not complete.
      ii. preparatory or foundational coursework not yet taken.
      iii. other program criteria not yet satisfied.
      A student in a conditional status normally can take no more than nine graduate hours in the program. The time that the student has to complete unmet admissions requirements is set by individual programs not to exceed 2 continuous long semesters. The student in a conditional status will be notified of the specific conditions by the graduate program advisor at the time of admission.

2. Graduate Certificate Seeking. A certificate student may enroll in certain graduate courses that lead to licensing or certification. Students admitted under this classification may register for only those graduate courses specified by the certificate program or licensing body. A minimum of 9 credit hours at the graduate level is required for a graduate certificate.

3. Transient. A student who provides proof of enrollment in good standing in a graduate degree program at another university may enroll at Texas A&M University-Corpus Christi for graduate course work to be transferred to the student’s home university. The student is not required to submit GRE or GMAT scores. (International students cannot be admitted in Transient status.) Permission from the appropriate college is required.

4. Non-Degree Seeking. Non-degree status is designed for the student who wants to enroll in graduate course work to meet personal or career goals that do not lead to a graduate degree or certification. The applicant must hold a bachelor’s degree from an accredited institution (or equivalent degree from another country). The applicant is not required to submit GRE scores. Some individual graduate degree programs do not have a non-degree seeking admission classification. Consult the section of the catalog pertaining to the specific degree program for additional information.

A student may petition to apply credits earned while in non-degree status, certificate seeking status, or previous master’s seeking status toward a graduate degree if the student applies to and is admitted to a graduate degree program at a later date and subsequent to meeting all of the usual admissions requirements, (see program-specific admissions requirements.) However, no more than twelve semester hours of courses taken in non-degree seeking, certificate seeking, or previous master’s seeking status may be applied to any master’s degree and no more than one-fourth of the credit hours required may
**Immunization and Related Requirements**

**Recommended Vaccinations**

Students are encouraged to submit immunization records voluntarily in order to assure the availability of a more complete medical record while a student at Texas A&M-Corpus Christi. Student Health Services strongly recommends that every student, and their family members, review our updated list of immunizations most appropriate for university students. This list of recommended vaccines was compiled by the American College Health Association (ACHA) with assistance from the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC). See Recommended Immunizations (https://www.acha.org/documents/resources/guidelines/ACHA_Immunization_Recommendations_Feb2021.pdf).

**Tuberculosis Screening Procedure**

Tuberculosis (TB) is a potentially life-threatening disease that has the ability to spread quickly in the close confines of classrooms and student residences on a university campus. Nearly one-third of the world's population has the disease. Students from countries with a high incidence of tuberculosis (https://www.who.int/health-topics/tuberculosis/#tab=tab_1) (as designated by the World Health Organization) and other students who have had extended visits to those countries (https://www.who.int/health-topics/tuberculosis/#tab=tab_1) are at a greater risk for carrying the disease. Of those with the disease, most have the latent form. Even so, on a college campus it is important to take precautionary measures.

**TB Testing Procedure for Newly Admitted International Students**

Texas A&M University-Corpus Christi (TAMU-CC), in consideration of the recommendations from the American College Health Association (April 2016), has developed a procedure for mandatory TB screening of newly admitted international students from countries where there is a high incidence of tuberculosis (https://www.who.int/health-topics/tuberculosis/#tab=tab_1) (as designated by the World Health Organization).

All international students who apply to TAMU-CC will be asked screening questions during the application process. If a student is identified as someone who is at high risk for exposure to TB, a hold will be placed on their account and they will be contacted via email by the TAMU-CC Health Center so that they may begin a TB testing process, as outlined below. The student may enroll in the first semester of classes while being tested for TB but must comply with the procedure below in order to enroll in a second semester of classes.

- A newly admitted international student who is identified as in need of a PPD skin test will be required to provide proof of a skin test and reading to TAMU-CC Health Center (located in Sandpiper building) by the 8th day of class.
- Students can take the PPD test at the TAMU-CC Health Center for a cost of $10 or at the Nueces County Health Department for $15. The test can also be taken at many pharmacies and physicians’ offices at the student’s expense.
- The PPD skin test must be taken in the United States no more than six months prior to the start of the semester but after the visit or residency in the high-incidence country.
- If the skin test is negative, the student is cleared and the TB Hold is removed from the student’s account.
- If the PPD skin test is positive, the student must have a chest X-ray and provide proof of the X-ray to the TAMU-CC Health Center by the 12th day of class.
- In Corpus Christi, X-rays can be done as a walk-in patient at Radiology Associates, 5742 Spohn Drive (begins with Route 37 on the RTA bus from campus; involves transfers), or Radiology & Imaging of South Texas, 3226 S. Alameda Street (Route 5 on the RTA bus from campus; no transfers). Students can pay in cash for the X-rays (around $30 at RA and $65 at R&I) or present their insurance cards.
- If the X-ray is negative, the student is cleared and the TB Hold is removed from the student’s account.
- If the X-ray is positive, the student must make immediate contact with the Nueces County Health Department at 361-826-7247 for further testing. The Health Department is located at 1702 Horne Road (begins with Route 5 on the RTA bus from campus; involves transfers).

**Non-compliance with the above TB Testing Procedure can:**

- Cause serious illness and death.
- Result in disenrollment from the university.
- Affect a student's ability to stay in the US on an F-1 or J-1 visa.
- Require intervention by a university official.

**TB Testing Recommendations for Continuing Students and Faculty**

It is recommended that students and faculty who travel to countries with high incidence of tuberculosis (https://www.who.int/health-topics/tuberculosis/#tab=tab_1) discuss their specific travel circumstances before the trip with a health care provider who can determine the appropriate evaluation. If a month or more is spent in the country, it is recommended that a TB skin test be conducted 4-6 weeks after returning to the US.

**For More Information about TB**

- Center for Disease Control (https://www.cdc.gov/tb/)
- The World Health Organization (https://www.who.int/health-topics/tuberculosis/#tab=tab_1)
- TAMU-CC Health Center (http://healthcenter.tamucc.edu/)

**Appeals**

Appeals can be made to the associate vice president for Academic Affairs by calling 361-825-3060.

**Campus Contact**

For additional information on this procedure, please contact the TAMU-CC Health Center by calling 361-825-2601.

1 Prices are subject to change.

**Bacterial Meningitis Vaccination Policy**

In accordance with Texas Senate Bill 1107 (amended by SB 62, effective October 1, 2013), Texas A&M University-Corpus Christi will require all new students under the age of 22 to provide certified proof from a health practitioner that they have received a valid bacterial meningitis vaccination or booster within the last five years. Students must submit their proof of vaccination or a booster at least 10 days prior to the first day of class for the intended term of enrollment.

A new entering student includes a first-time student of an institution of higher education or private or independent institution of higher education and includes a transfer student, or a student who previously attended...
an institution of higher education before January 1, 2012, and who is enrolling in the same or another institution of higher education following a break in enrollment of at least one fall or spring semester.

Students are strongly encouraged to obtain the bacterial meningitis vaccination before entering the United States or moving to the Corpus Christi area. A list of U.S. approved meningococcal vaccines is available in English (http://admissions.tamucc.edu/assets/CDC_Handout_vismening.pdf), Español (http://admissions.tamucc.edu/assets/CDC_Handout_sp_men05.pdf)

Important Facts about Bacterial Meningitis (https://www.cdc.gov/meningitis/)

Students who fail to submit certified proof of vaccination or a valid booster within the required time frame will be unable to register for their intended term. Please note, vaccinations older than 5 years will require a booster and all bacterial meningitis vaccinations and boosters must be administered by a health practitioner authorized by law to administer an immunization.

Valid Proof of Vaccination
1. A complete Evidence of Vaccination against Bacterial Meningitis Form (http://admissions.tamucc.edu/assets/Evidence_of_Vaccination_Against_Bacterial_Meningitis_Form.pdf). Use this form if you plan to obtain your vaccination somewhere other than your personal physician’s office.
2. A document bearing the signature or stamp of the physician or his/her designee, or public health personnel (must include the month, day, and year the vaccination was administered).
3. An official immunization record generated from a state or local health authority (must include the month, day, and year the vaccination was administered).
4. An official record received from school officials, including a record from another state (must include the month, day, and year the vaccination was administered).

Valid Proof of Vaccination Exemption
1. An affidavit or a certificate signed by a physician who is duly registered and licensed to practice medicine in the United States, in which it is stated that, in the physician's opinion, the vaccination required would be injurious to the health and well-being of the student.
2. Conscientious Objection Form: An affidavit signed by the student stating that the student declines the vaccination for bacterial meningitis for reasons of conscience, including a religious belief. A conscientious exemption form from the Texas Department of State Health Services (TDSHS) must be used and can be downloaded from the following link: TEXAS DEPARTMENT OF STATE HEALTH SERVICES FORM. Please complete following the instructions provided on the conscientious exemption form. Please allow several weeks for delivery.

Other Vaccination Exemptions
A student is not required to submit evidence of receiving the vaccination against bacterial meningitis, or a booster dose, if:
1. The student is 22 years of age or older by the first day of the start of the semester; or
2. The student is enrolled only in online or other distance education courses; or
3. The student is enrolled in a continuing education course or program that is less than 360 contact hours, or continuing education corporate training; or
4. The student is enrolled in a dual credit course which is taught at a public or private K-12 facility not located on a higher education institution campus; or
5. The student is incarcerated in a Texas prison.

Students are encouraged to visit their primary care provider prior to enrollment. The cost of the bacterial meningitis vaccination may be cheaper in a student’s home country or through the student’s primary care provider. Students may also obtain the Meningitis vaccination or booster from their local County Public Health Department or other local pharmacies.

For medical questions concerning the meningitis vaccination or booster, students may contact the University Health Center Nurse Line at 361.825.5735. For questions regarding document submission and approval, students should contact the Office of Recruitment and Admissions at 361.825.2624.

All new students must receive the bacterial meningitis vaccination at least 10 days prior to the start of the intended term of enrollment.

How to Submit Evidence of Vaccination or an Affidavit to Decline Vaccination
All documents pertaining to compliance with the bacterial meningitis vaccination policy should be mailed, faxed, emailed, or hand-delivered to Texas A&M University-Corpus Christi Office of Recruitment and Admissions. Applicants who wish to fax their documentation are asked to use the Office of Recruitment and Admissions Fax Cover Sheet (http://admissions.tamucc.edu/assets/BMV_Fax_Cover_Sheet.pdf).

- Mailing Address:
  Texas A&M University-Corpus Christi
  Office of Recruitment and Admissions
  6300 Ocean Drive, Unit 5774
  Corpus Christi, TX 78412-5774
  Phone: 361.825.2624 or 1.800.4.TAMUCC
  Fax: 361.825.5887, Fax Cover Sheet (http://admissions.tamucc.edu/assets/BMV_Fax_Cover_Sheet.pdf)
- E-mail: admiss@tamucc.edu (Please type Meningitis Vaccination in the Subject Line)
- Hand-Delivered: Student Services Center, Office of Recruitment and Admissions, Customer Service Kiosk

Student Services Center Hours of Operation:
Monday – Friday (8 a.m. to 5 p.m. CST)

General Academic Policies and Regulations

Student Responsibility

University personnel may assist students in progressing toward the degree that they are seeking. However, the final and ultimate responsibility for understanding and following the degree requirements rests with the students themselves. Each student is held responsible for knowing degree requirements, for enrolling in courses that fit into degree programs, and for taking courses in the proper sequence to ensure orderly progression of work. The student must seek advice about degree requirements and other University rules when necessary. The student is held responsible for...
knowing and abiding by University requirements regarding the standard of work required to continue in the University, as well as those dealing with academic integrity, scholastic probation, enforced withdrawal, suspension, and dismissal. Additionally, the student is expected to comply with the rules and processes in the Student Code of Conduct, which is administered by the Office of Student Conduct & Advocacy. The Student Code of Conduct is accessible at http://www.tamucc.edu/~students/.

Registration

Students admitted to the University may register for course work. See the admission classification system in the “Admissions (p. 7)” chapter of the catalog for limits. Former graduate students who have been inactive for two years or more must reapply for admission to the College of Graduate Studies prior to the term of re-enrollment. Note that some programs may require re-application after only a one-year leave of absence. Doctoral students must remain continuously enrolled. See the Continuous Enrollment and Leave of Absence policy for more information. Specific information regarding dates, registration materials, and course offerings may be found in the class schedule for each term (published during the preceding term). Students must register by the specified deadlines for the term in order to be eligible to receive course credits. Registration requires payment of tuition and fees. See “Tuition, Fees, and Financial Assistance” http://businessoffice.tamucc.edu/tuition_and_fees%20/index.html (http://businessoffice.tamucc.edu/tuition_and_fees%20/).

Non-Credit Admission (Auditing)

A student may attend classes for a course without receiving credit if the student completes an application for admission, submits a Course Audit Form at the time of registration and has the permission of both the instructor of the course and the dean of the college in which the course is offered. The fee is the same as that required for registration for credit, but no credit will be awarded, no records will be kept and the student may be restricted from lab work and tests. A student will not be given permission to audit a course until the first day of classes. Students may not change from credit to audit status after the 12th class day during the summer. No refunds are given on fees. Under no circumstances may a student be converted to credit.

Unit of Credit

One semester hour is defined as the amount of credit given for one class hour a week for one semester or 15 class hours per semester.

Transfer Credit Equivalencies

For purposes of transfer, and for calculation of the grade point average of an applicant for graduate admission, work taken on a trimester system will be converted to semester hours on a 1 to 1 basis. In the event that the work was taken on a class hour basis, 15 class hours will be equated to 1 semester hour. For conversion from quarter hours to semester hours, Texas A&M University-Corpus Christi has established the following equivalencies:

<table>
<thead>
<tr>
<th>Quarter hours</th>
<th>Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>4</td>
<td>2.7</td>
</tr>
</tbody>
</table>

This University will use the summation of the individual course equivalencies from the transferring institution to compute grade point average for admission purposes and/or credits earned. For credit systems other than those listed above, the College of Graduate Studies will determine an ad hoc mathematical relationship and apply it to the record in question.

Enrollment Status

Enrollment status for graduate students is defined below.

<table>
<thead>
<tr>
<th>Enrollment Status</th>
<th>Semester Credit Hours Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time graduate student</td>
<td>Fall or spring term = 9 hours</td>
</tr>
<tr>
<td>Three-quarter-time graduate student</td>
<td>Fall or spring term = 7 hours</td>
</tr>
<tr>
<td>Half-time graduate student</td>
<td>Fall or spring term = 5 hours</td>
</tr>
</tbody>
</table>

For information on enrollment status requirements for graduate students receiving financial assistance administered through the Office of Student Financial Assistance, see the “Tuition, Fees, and Financial Assistance (p. 25)” section of the catalog. For rules applying to veterans benefits, see “Veterans Educational Benefits (p. 25).”

Exceptions to Full Time Enrollment Minimums

Students may be certified as full time with fewer than the required hours under the following circumstances:

1. Enrollment in thesis or dissertation preparation course;
2. Participation in an authorized cooperative education (co-op) experience;
3. Participation in an approved internship/practicum/clinical that is equivalent to a full-time course load;
4. Enrollment in student teaching course sections;
5. Presence of a documented disability that mandates a reduced course load;
6. Enrollment in required language institute hours that, in combination with the student’s regular TAMUCC hours, constitute a full-time course load.

Note: These exceptions may not apply to a student’s eligibility for certain types of financial aid. Enrollment reporting for student loan repayment purposes will be reported as actual hours enrolled. Cooperative education students are reported at full time for student loan repayment purposes. For information on enrollment status requirements for graduate students receiving financial assistance administered through the Office of Student Financial Assistance, see the “Tuition, Fees, and Financial Assistance (p. 25)” section of the catalog. For rules applying to veterans benefits, see “Veterans Educational Benefits (p. 25).”

In most cases, international students are eligible for the same exceptions to full time requirements; however, all international students requesting an exception to full time requirements must have their request approved in the Office of International Education (OIE). Students who are not U.S.
Citizens but who are permanent U.S. residents (VISA Type = IM) are not required to clear with OIE on enrollment exceptions.

Course Numbers
Each course number includes a four-letter prefix (identifying the discipline or subject) and a four-digit number. The first digit indicates the level of the course. The second digit usually indicates the credit hour value of the course. The final digits are sequence numbers. A list of course prefixes may be found in Appendix B (p. 342).

Courses numbered in the 1000 and 2000 series are lower-division (freshman or sophomore) courses.

Courses numbered in the 3000 and 4000 series are upper-division (junior or senior) courses. Courses numbered 5000 or higher are graduate courses.

Courses at the 5000 level are open only to students with graduate status and senior undergraduates who meet specific criteria. Courses at the 6000 level are open only to students admitted to a doctoral program or graduate students who meet specific criteria.

Courses of Instruction
All graduate courses offered at Texas A&M University-Corpus Christi are listed in the Course Descriptions section of this catalog. Although the lists of courses are based on the best information available at the time of catalog preparation, course offerings are subject to change without notice. This catalog was prepared well in advance of its effective date; therefore, changes may occur in course content or availability. Some new courses and modified courses are included in this catalog pending their approval by the Texas Higher Education Coordinating Board.

When registering for courses, students should consult the semester class schedule, a separate online publication that provides specific course offering information for a particular semester or session. The class schedule is made available online before the registration period for each term.

Adding or Dropping a Course
A student may add a course during the time specified in the class schedule. To add a course the student must obtain a Class Scheduling Form from the Office of the University Registrar.

The grade of W will be assigned to any student officially dropping a course by the date stated in the class schedule (end of the tenth week of classes in the fall and spring semesters and end of the third week during summer sessions). No student is eligible to receive a W by completing the official drop process by this deadline. After the drop date listed in the class schedule, a student will not be allowed to drop a course. A change of section or a change to or from audit is a change of registration and requires that the add/drop process be followed.

Students should be aware that dropping courses may affect their eligibility for financial assistance and other benefits.

If a student should drop all courses for a given semester or term, a Withdrawal Form must be processed. Refer to the following paragraph.

Withdrawal from the University
A student who finds it necessary to withdraw from the University during a session must file a Withdrawal Form in the Office of the University Registrar. The deadline for withdrawing from the University is the day before the last day of classes during a long semester (fall or spring), and the day before final examinations during a summer sessions. Failure to file a Withdrawal Form can result in grades of “F” in courses in progress.

A student who withdraws from the University according to procedures stipulated for withdrawal will be allowed a grace period to rescind the withdrawal. A student may rescind a withdrawal no later than the end of the second University business day following the date of withdrawal. The date of reinstatement must be among the regular days of classes. Days of final examinations and thereafter are specifically excluded.

Should space no longer be available in a class, the student must secure the approval of the dean and/or instructor before reinstatement in class is allowed.

All indebtedness to the University must be satisfied prior to the reinstatement.

Reinstatement must be requested in writing by the student on a form provided by the University Registrar. All documentation and requirements for the reinstatement must be filed with the University Registrar by the end of the second business day (following the withdrawal), or else the reinstatement will not occur.

Students receiving veterans benefits for education should contact the Office of Veterans Affairs for specific policies concerning drops and withdrawals. These changes have a direct effect on VA benefits.

Withdrawal of Students Called to Active Duty
Section 54.006 of the Texas Education Code states:

Beginning with the summer semester of 1990, 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.

Retroactive Withdrawal
A student may request that all grades in an academic period be retroactively removed and replaced by entries of “W” on their transcript. A retroactive withdrawal may be granted only when a student has experienced circumstances of such serious and compelling nature that the student could not reasonably have been expected to satisfactorily complete the academic period or submit a petition for regular withdrawal by the deadline specified in the University catalog. Such serious and compelling circumstances may include (but are not limited to) hospitalization, incarceration, debilitating mental illness, or sudden absence at the end of the semester due to family crisis. Failure to academically perform due to factors such as bad habits, poor judgment, time management issues, failed relationships, roommate conflicts, or ignorance of University policies would not generally qualify a student for retroactive withdrawal.
To withdraw retroactively from the University, the student must request this action in writing through the Office of the University Registrar via an online appeal form that will be reviewed by the Associate Registrar. The appeal must be accompanied by supporting documents which demonstrate serious and compelling reasons why action was not taken through the regular withdrawal process during the academic period in question. The time limit for submitting this appeal is the end of the next long semester following the academic period in question; requests that extend past this period will be denied.

If retroactive administrative withdrawal is granted, the Office of the University Registrar will set all grades for the relevant term to a non-punitive mark of “W.” If the student should wish to appeal a decision on retroactive withdrawal, an appeal can be made, in writing, to the University Registrar within 14 days of the date of notification. The decision of the University Registrar is final.

Class Attendance

Students are responsible for class attendance and are advised that excessive absences may adversely affect their grades. Every instructor should make clear the policy on class attendance in the course syllabus and at the beginning of each course.

If students are absent from class on approved University business (e.g., intercollegiate athletics competition/travel, field trips, student research conferences, Board of Regents meetings), faculty members should count this as an excused absence and should not penalize the student for it. Students should be allowed to make up any required course work in advance or after their return to campus. Students are responsible for informing their instructors about the trip in advance so that the faculty members can make plans accordingly. If any doubt exists as to whether the activity in question is considered official University business, contact the Provost’s Office.

Student Absences on Religious Holy Days

In accordance with Texas Education Code 51.911, Texas A&M University-Corpus Christi will 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 for observance of a religious holy day 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.

Texas Education Code, Section 51.911 defines a religious holy day as a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code. If a student and an instructor disagree that the absence is for the observance of a religious holy day, or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the Provost. The student and instructor shall abide by the decision of the Provost.

If a student’s academic course work includes patient care, the University may exclude from these policies and procedures any student absence for religious holy days that may interfere with patient care.

Grades

The letter grades used for graduate work are the same as those used in undergraduate work (A, B, C, D, and F). Graduate credit is allowed only for courses completed with grades of A, B, and C, although grades of D and F are used in computing grade point averages. Programs may place limits on the number of Cs that are allowed for graduate credit. Grade points per semester hour are noted below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interpretation</th>
<th>Grade Points per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failure; work not passed</td>
<td>0</td>
</tr>
</tbody>
</table>

CR, NC, S, U, UP, I, IM, IP, W, WP grades are not counted in computing the GPA. A grade of WF assigned before the fall semester of 1996 is counted in computing the GPA.

Other grades for courses are reported by the symbols below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR$^1$</td>
<td>Satisfactory, but without qualitative grading. See “Credit/No Credit Grading.”</td>
</tr>
<tr>
<td>NC$^1$</td>
<td>No credit.</td>
</tr>
<tr>
<td>S$^1$</td>
<td>Satisfactory. Applicable to specified graduate courses.</td>
</tr>
<tr>
<td>U$^1$</td>
<td>Unsatisfactory. Applicable to specified graduate courses.</td>
</tr>
<tr>
<td>UP$^1$</td>
<td>Unsatisfactory. Applicable to specified graduate courses.</td>
</tr>
<tr>
<td>IM$^1$</td>
<td>Incomplete-Military. An “IM” notation may be given to a student who is called to active military service and who consequently cannot continue attending class. In order for this notation to be given, the student must be passing the course, must have completed a significant portion of the course work, and must have the approval of the instructor.</td>
</tr>
<tr>
<td>JP$^1$</td>
<td>Assigned to a remedial course or a thesis/dissertation course indicating that at the conclusion of the semester the course was still in progress. This is a permanent notation that does not affect grade point average. To receive a qualitative grade, the student must register for the same course in the subsequent semester, paying the appropriate tuition and fees.</td>
</tr>
</tbody>
</table>
Course dropped or withdrawal from the University. Automatically given, regardless of the student’s standing in class, when a student officially withdraws from the University or drops a course prior to the deadline as indicated in the class schedule. See “Adding or Dropping a Course” and “Withdrawal from the University” in this catalog.

Withdrawal pass. Before the fall semester of 1996, this grade was assigned to a student who dropped a course or withdrew between designated dates in the semester or summer term and was passing the course at the time of the withdrawal. Grades of WP assigned before fall 1996 will remain on the transcript.

Withdrawal failure. Before fall 1996, this grade was assigned to a student who dropped a course or withdrew between designated dates in the semester or summer term and was failing the course at the time of the withdrawal. Grades of WF assigned before fall 1996 will remain on the transcript.

Grades are made available to students at the end of each grading period at http://sail.tamucc.edu or by calling 825-7245 or 1-877-825-7245.

**Change of Grade**

A change of grade (among the values A, B, C, D, F) may occur only if there has been an error in computation or recording of the grade or if a change has been ordered as a result of the grade appeal process. A grade may not be changed because of consideration of work completed following the end of the grading period for which the grade was issued. If not associated with the grade appeal process, a grade change is initiated by the instructor of record and approved by the Dean of the college of record. In rare circumstances, the approval of the Provost may be required. To be valid, a grade change must be submitted to the University Registrar on or before the last day of the next regular semester following the term in which the grade was originally issued, and on the form provided for that purpose.

**Grade Appeal Process**

As stated in University Procedure 13.02.99.C0.03 (http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.c0.03_student_grade_appeals.pdf), Student Grade Appeals, students who believe that they have not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate appropriateness of the appeal.

The faculty member for the class is the primary authority with respect to a student’s proficiency and final grade in that course. Presentation of the grievance to the faculty member is an informal process that precedes the formal appeal. A student with a complaint about a grade must, before beginning the formal process, discuss the matter with faculty member unless the faculty member is, for any reason, unavailable. If the problem cannot be resolved at this level, the student may take the steps below:

1. Written appeal to department chair. This step must be taken no later than twenty (20) business days after the start of the next long semester.
2. Normally, the department chair will consult with the student and the faculty member within five (5) business days to attempt a successful resolution of the appeal. If successful, the department chair will issue a written statement of the findings and any actions agreed to.
3. If no satisfactory resolution can be found as agreed upon by the faculty member, department chair, and student, the department chair will refer the matter, normally within five (5) business days, to the associate dean for a hearing by the CGAC. The department chair will issue to the student, faculty member, and associate dean of the college a written statement of findings indicating that this stage of the appeal process is complete.
4. If the faculty member in the case is the department chair, their role as described above, will be assumed by the appropriate college associate dean.
5. The Associate Dean will schedule a hearing before the College Grade Appeal Committee (CGAC) normally within twenty (20) business days. The case will be heard at a time and place that does not conflict with class schedules of the student and faculty member involved. If the hearing is set with the concurrence of the parties and the student or faculty member cannot attend, the hearing may proceed as scheduled.
6. The chair of a CGAC will preside at the hearing, maintain orderly proceedings, and ensure that all parties receive a fair hearing.

**Calculation of Grade Point Average**

Texas A&M University-Corpus Christi uses a 4.0 scale for calculation of Grade Point Average (GPA). GPA is determined by dividing the total number of grade points earned by the number of semester credit hours taken for a qualitative grade (A=4, B=3, C=2, D=1, F=0).

A minimum grade point average of 3.0 is required in all graduate work taken and in the program of study at the University. Specific academic Programs may require a higher grade point average. Only grades earned at this University will be used to calculate the Texas A&M University-Corpus Christi grade point average as used in determination of eligibility for graduation.

CR, NC, S, U, UP, I, IM, IP, W, WP grades are not counted in computing the GPA. A grade of WF assigned before the fall semester of 1996 is not counted in computing the GPA.

For a grade of W to be assigned, a student must officially withdraw from the course or University through the Office of the University Registrar. The receipt from the Office of the University Registrar should be kept as proof of withdrawal. If a student discontinues attending a class, fails to officially withdraw, and does not qualify for an “I,” a qualitative grade (A-F) will be assigned.

If no grade is submitted by an instructor, a temporary notation (XX) will be placed on the student’s records. In such cases, the course grade must be submitted within 30 days from the beginning of the next semester. If the instructor does not or is unable to submit the grade within 30 days, the Dean in consultation with faculty will submit the course grade.
CGAC will review all information presented and hear all parties to the case. Both the faculty member and student shall be present at the same time during the formal hearing.

7. All parties to the hearing may be accompanied by another person in an advisory capacity only. Such person may not participate directly in the hearing.

8. The CGAC will determine the facts of the case and attempt to effect a fair and appropriate resolution to the complaint. Depending on the circumstances of the case, the CGAC may recommend to the associate dean of the college that (a) the original grade given by the faculty member is upheld or (b) that the grade in question is changed to a specific alternate grade. In cases where the faculty member is no longer affiliated with TAMU-CC, the dean may initiate the change of grade.

9. The chair of the CGAC will present its findings and recommendations, in writing, to the associate dean (or dean if the associate dean is a party to the case) normally within five (5) business days after completion of its hearings and deliberations.

10. The associate dean (or dean) will make a decision and send written notification of the decision to the student and the faculty member involved normally within five (5) business days after receiving the CGAC's findings and recommendations. The decision of the associate dean (or dean) is final.

For complete details, including the responsibilities of the parties involved in the process, see University Procedure 13.02.99.C0.03 (http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.c0.03_student_grade_appeals.pdf), Student Grade Appeals, on the University Rules and Procedures web site.

Removing the Grade of Incomplete

The notation of "I" indicates that work in a course is satisfactory but incomplete (certain work is postponed by the student for substantial reason with the prior consent of the instructor). This work must be completed by the last class day of the next regular (fall or spring) semester unless the instructor designates an earlier date for completion. If the work is not completed by the appropriate date, the qualitative grade provided by the instructor on the incomplete notation application will be submitted to the Office of the University Registrar and will replace the "I." An incomplete notation cannot remain on the student's permanent record and must be replaced by a qualitative grade (A-F) at the conclusion of the next regular semester. If the grade of "I" has not been changed at the conclusion of the next regular semester, it will be changed to a final grade of "F" by the Office of the University Registrar.

Removing Grade of Incomplete-Military (IM)

The "IM" notation may be given to a student who is called to active military service and who consequently can no longer attend class. Such a notation may be assigned if the student is passing a course, but will not be able to complete a term paper, examination, or other required work for the course before the end of the semester or session because of the required active military service. Assignment of the "IM" notation requires the approval of the instructor. Normally the "IM" grade is not assigned unless the student has completed a substantial amount of course work. The remaining course work must be completed by the last day of the next regular semester (fall or spring) following the student's return from active military service. The "IM" designation will remain on the student's permanent record if the work is not completed by the appropriate date. For more information on options available to students who are called to active military service, see "Withdrawal of Students Called to Active Duty", above.

Credit/No Credit Grading

Certain courses proposed by individual colleges and approved by the University Curriculum Committee may use the alternate grading system CR/NC when the standard system authorized for the University (A, B, C, D, F, I, IP, W) is not considered appropriate. CR/NC is a designation of the University given to certain courses, all of whose students receive one of these grades. In most cases, no more than 7 semester hours of CR/NC in a student's major field of study may be applied toward a master's degree. However, graduate students in the College of Liberal Arts may take 3 semester hours graded CR/NC in addition to a maximum of 6 thesis credit hours of CR/NC, which may be applied to a master's degree. No more than 9 semester hours of CR/NC in a student's major field of study may be applied toward a doctoral degree.

The hours graded CR (credit), given in those instances where standard letter grades are not used, will not be applied in computing grade point averages. Credit/no credit grading differs from pass/no pass, a grading option for undergraduates. Since fall 2002, pass/no pass grading has not been used in graduate courses. Consequently, courses graded as pass/no pass will not be allowed to transfer to a graduate program at this University.

Directed Independent Study (DIS)

Each graduate program offers courses in directed independent study. These courses appear with a 5X96 or 6X96 number ("X" ranges from 1-6 semester credit hours) in the course offerings of each discipline and may carry variable credit depending upon the course design. The number of credit hours must be approved by the instructor, the Department Chairperson/Director, and the Dean in advance of registration. These courses may be repeated, but may not exceed a total of six semester credit hours.

Final Examinations

Final examinations must be scheduled during the regularly scheduled examination time listed in the official class schedule. If papers or take-home examinations are assigned in lieu of a final examination, the due date must be at the regularly scheduled examination time listed in the official class schedule. If final presentations or final critiques assigned in lieu of final examinations require multiple days to complete, then the final day for the critiques/presentations must occur on the regularly scheduled exam day.

Students are not required to take more than two final examinations in any one day. Any student with three or more final examinations scheduled on the same day may request to take one of the examinations on another day during the final examination period. The process is described below.

1. The student should first try to resolve the matter with the appropriate instructor(s).
2. If the matter remains unresolved, the student should submit a request for an alternative final exam time in writing to the Office of Student Affairs. This request must be submitted by the drop date (the last day to drop a course for the semester with an automatic grade of W as stated in the semester class schedule).
3. The Office of Student Affairs will select which of the exams should be taken at an alternative time and formally contact the faculty member at least 15 working days before the final examination period. Preference for selection of which course would have an alternative
final exam time must be based on the course with the smaller class size and, then, courses with final exam times in between other exams.

4. The faculty member will then arrange an alternative time for the student to take the final exam for that course that does not conflict with the student’s final exam schedule or require the student to take more than two final exams in one day. If students have difficulties in rescheduling the examination, they should consult with the Office of Student Affairs. Final exams given outside the regularly scheduled time may vary in content and format at the discretion of the faculty member.

Application for Graduation

Students who plan to participate in a graduation exercise and/or receive a diploma and degree conferral must submit an online application for graduation by the deadline indicated in the Academic Calendar (http://www.tamucc.edu/academics/calendar/) and pay the associated fee. Students are strongly advised to consult their CGS academic advisor prior to submitting an application for graduation. The application for graduation and associated fees is not transferable to a subsequent semester. If a student does not graduate, the application will be canceled and a new application and fee must be submitted. Students participating in the graduation exercise will also be required to obtain an appropriate cap and gown.

Academic Integrity

Texas A&M University-Corpus Christi students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, which include but are not limited to illicit possession of examinations or examination materials, falsification, forgery, plagiarism or collusion in any of these behaviors.

Responsibility of the Student: It is the responsibility of the student to become educated regarding University Rules, Regulations and Policies regarding academic misconduct. This includes, but is not limited to, seeking clarification from each instructor regarding acceptable behaviors and guidelines for completing individual assignments. A failure to become educated with the University Rules, Regulations and Policies or the instructor’s individual guidelines will not excuse the student from accountability for violations of such policies.

Responsibility of the Instructor: The instructor should maintain a policy regarding academic misconduct within their syllabus and provide clear expectations regarding behaviors that will and will not be permitted regarding the completion of in and out of class assignments. The instructor shall address all matters of suspected academic misconduct with the student in question and may choose to document and refer the matter to Student Conduct & Community Standards. The burden of proof shall lie on the instructor when presenting cases of academic misconduct to Student Conduct & Community Standards.

Disciplinary action for academic misconduct is first the responsibility of the faculty member assigned to the course. The faculty member is charged with assessing the gravity of any case of academic misconduct and with giving appropriate sanction to any student involved.

Sanctions that may be recommended by the faculty member for individual cases of academic misconduct include one or more of the following:

• Written reprimand (an official letter of reprimand will be issued by the Student Conduct & Community Standards);
• Requirement to re-do work in question;
• Requirement to submit additional work;
• Lowering of grade on work in question;
• Assigning grade of “F” to work in question;
• Assigning grade of “F” for course;
• Recommendation for more severe punishment, such as suspension, dismissal from program, or expulsion from the University.

If the faculty member recommends more severe sanction, such as dismissal from program or expulsion from the program or from the University, the matter will automatically be reviewed by Student Conduct & Community Standards and may be referred to an Academic Integrity Hearing Panel. Additionally, if the student has a history of academic misconduct, the matter will be reviewed by the Academic Integrity Hearing Panel.

The faculty member must file a record for each case of academic misconduct, including a description of the incident, the disciplinary action taken, the assignment, the instructions for the assignment, and evidence indicating misconduct, and a current syllabus for the course to the Student Conduct & Community Standards. The faculty member should also provide a copy to the chair of their department. The Student Conduct & Community Standards will maintain records of such cases for a period of five years after the student’s last enrollment date.

For additional information regarding this process students should refer to University Rules and Procedures 13.02.99.C0.04 (https://studentconduct.tamucc.edu/13.02.99.c0.04_student_academic_misconduct_cases). Student Academic Misconduct Cases.

Academic Records

The Office of the University Registrar maintains all permanent academic records. Admission and matriculation information, including transcripts received from other schools, are also maintained by this office.

When a transcript or other document has been submitted to Texas A&M University-Corpus Christi, it becomes the property of the University and will not be yielded back to the student as an original.

Academic files and degree plans are maintained in the Office of the Registrar. The college deans are responsible for certifying that students receiving degrees have satisfied all college degree requirements. Degree plans for graduate students should be developed by the time students have completed half of the course work in the program, and copies should be forwarded to the College of Graduate Studies.

The University Registrar, the college deans, and the Graduate Dean have specific responsibilities in certifying that University minimum requirements have been satisfactorily completed. The Graduate Dean will complete the degree audit for graduate students and report the outcome to the University Registrar.

Challenge to an Academic Record

A student who wishes to challenge the accuracy of the academic record (official transcript) established at Texas A&M University-Corpus Christi and held in his or her behalf must notify the University Registrar in writing and explain in detail the nature of the error. The Office of the University Registrar will study the challenge and the contents of the student’s file and consult with the appropriate academic personnel. The University Registrar will reply to the student within 20 working days.
The student has one calendar year from the date that the datum becomes a fact of record to initiate a challenge. If a challenge is successful and affects the student’s GPA, honors status, or similar rubric, the historical record will be altered accordingly.

Application of this policy is not intended to abridge, supplant, or supersede other deadlines. The University reserves the right to correct or amend an academic record any time an error is identified. In each case, the student will receive written notice of the change.

Change of Name or Address

Changes of name must be filed in the Office of the University Registrar. Address and/or telephone number changes may be processed through the Office of the University Registrar or through the web using the Student Academic Information Link (SAIL).

Student Records Policy

The University accumulates data and keeps records to enable staff and faculty to plan educational opportunities to meet the needs of individual students, to better understand students, to counsel them more effectively, and to assist them in placement in graduate education or employment after graduation.

The University maintains student records in several locations, including the Office of the University Registrar, College of Graduate Studies, Office of Student Financial Assistance, Business Office, offices of academic deans and faculty, Office of Student Engagement and Success, College of Undergraduate Studies, Office of Public Affairs, Career Services, University Health Center, University Counseling Center, Disability Services, and Alumni Office. Provisions are made in these offices for students to review and challenge the accuracy of records when appropriate and upon request.

The University complies with the Family Educational Rights and Privacy Act of 1974 (FERPA) and with the Texas Public Information Act. FERPA is a federal law intended to protect the privacy of education records, to establish the rights of students to inspect and review their education records and to provide guidelines for the correction of inaccurate or misleading information through informal or formal hearings. Information in student records may be provided to parents without the written consent of the student if the eligible student is a financial dependent of his or her parents as defined under Section 152 of the Internal Revenue Code of 1954. Such requests should be submitted to the Office of the University Registrar.

Students have the right to inspect and review their education records, except for the following:

1. Financial records of the student’s parents.
2. Confidential records and statements of recommendation which were placed in the education records prior to January 1975.
3. Confidential records and statements of recommendation which were placed in the student’s education records on or after January 1, 1975, if the student has waived the right to review the letters or statements.

Education records, as defined by FERPA, do not include the following: a personal record of a University faculty or staff member that is in the sole possession of the individual who made it and that has never been revealed to any other person except the maker’s temporary substitute; certain employment records; student health records; student records of personal counseling (records protected under other laws and regulations); and records maintained by a University law enforcement unit that were created by that unit for the purpose of law enforcement. (However, the University may release to an alleged victim of a crime of violence the results of a University disciplinary proceeding concerning the alleged perpetrator of the crime.)

The University maintains two types of student education records: directory information and other student records. Directory information is considered public information and will be released by the University upon request, in accordance with existing law. This public information includes: name; home address; local address; local telephone number; date of birth; field of study; enrollment status; full-time, part-time, undergraduate, graduate, etc.; classification (fr., so., jr., sr.); dates of attendance; degrees, certificates, and other awards received (if any); the type of degree received; date of graduation; name of most recent previous institution attended; and similar information. A student who does not wish this public information to be released must complete the appropriate form and submit it to the Office of the University Registrar.

With the exception of directory information, the University will not permit the release of personally identifiable information in education records without the prior written consent of the student, except as follows:

1. To appropriate University personnel who need access to educational records to perform their legitimate educational duties.
2. To officials of other schools in which the student seeks to enroll, provided the student is notified of what is being released and is given a copy if desired.
3. To federal, state, or local officials authorized by law.
4. To organizations conducting educational studies, provided that these organizations do not release personally identifiable data.
5. To accrediting organizations.
6. To students.
7. To the parents who certify that a student is carried as a dependent for federal income tax purposes.
8. To appropriate persons, in an emergency, if the knowledge of such information is necessary to protect the health or safety of the student or other persons.
9. To individuals requiring such information by means of a judicial order or a lawfully issued subpoena, provided a reasonable effort is made to notify the student in advance of compliance.

The University does not maintain records of membership in organizations or of political, racial, or religious affiliations.

The acquisition and dissemination of information for records is based on a respect and concern for the privacy and protection of the individual student. However, the obligation of confidentiality may lapse when the common welfare of the community or the welfare of the individual demands revelation such as in the case of suicidal preoccupations, expressed homicidal thoughts or actions, commission of a felony, or similar circumstances. Evaluation and interpretation of a student’s records shall be done only by a professional and qualified staff person.

Policies Subject to Change

Although every effort has been made to provide complete and accurate information in this catalog, changes may occur at any time, without notice, in academic policies and regulations.
Graduate Academic and Degree Requirements

General Requirements

The following general academic requirements apply to all graduate programs. Requirements that apply specifically to the master’s degree or to the doctoral degree are discussed later in this section. More detailed information about the requirements for individual degree programs may be found in the sections pertaining to those programs.

Graduation Under a Particular Catalog

A graduate student may receive a degree upon satisfying the requirements of the catalog under which the student enrolled in the program, provided the catalog is no more than seven years old for masters students and ten years old for doctoral students, when the degree is conferred and the University still offers programs and required curriculum described in that catalog. A student may petition to graduate under a subsequent catalog under which credit was earned because of a preference to meet newer degree requirements. Students who stop out of a program and reapply must meet the degree requirements of the new catalog under which they are readmitted.

Certification or licensure requirements are subject to change. Students enrolled in programs leading to certification or licensure must meet all current certification and licensure requirements, regardless of the catalog chosen.

Transfer of Credit

Coursework completed before the student applies for admission at Texas A&M University-Corpus Christi, or completed at another institution after admission to Texas A&M University - Corpus Christi is considered transfer of credit. Course work transferred or accepted for credit toward a graduate degree must represent graduate course work relevant to that degree, with course content and level of instruction resulting in student competencies at least equivalent to those of students enrolled in Texas A&M University-Corpus Christi’s own graduate degree programs. The following rules apply to all graduate transfer courses.

- The student must have earned transferred graduate credit at a regionally accredited institution.
- The student must have earned a grade of B or better in the transfer course work. Courses lacking letter grades (e.g., courses graded pass/no pass, credit/no credit, or satisfactory/unsatisfactory) will not be accepted as transfer credit.
- The course work must be less than 7 years old for Master's degrees and less than 10 years old for Doctoral degrees at the time the Texas A&M University-Corpus Christi degree is awarded.
- Credit from a degree earned at another institution will not be applied to a graduate degree at Texas A&M University-Corpus Christi.

Additional limitations on transfer of credit are discussed in “Requirements for Master’s Degrees” and “Requirements for Doctoral Programs”, below.

All transferred work (with accompanying grades or marks) will be translated into Texas A&M University-Corpus Christi terms. If an equivalency has not already been established, the College of Graduate Studies will consult with the appropriate graduate program that represents the course content to determine the course equivalency and transferability. Should the Graduate Dean determine that a student has taken courses of similar level and content at more than one institution (duplicated work), the grade of the second course attempted will be the grade of record, and all others will be recorded without credit. Transfer work will become a part of the student’s record only after matriculation and then only when the student has established a course-of-record.

Correspondence and Extension Credit

Extension, correspondence study credit, continuing education unit (CEU), and similar professional credits cannot be applied toward graduate degrees.

Academic Advisement

Graduate faculty advisors/mentors or advisory committees are assigned within individual graduate programs in each college. Faculty advisors/mentors are available to exchange ideas about courses of value as related to career plans, act as liaisons with other faculty members, refer students to other departments on campus as needed, and provide input if students experience difficulty with their studies, as well as address questions regarding their degree plans. Specific questions related to degree requirements may also be handled by the academic advisors/mentors or the graduate program coordinator or equivalent in the respective college.

Graduate Courses

Graduate courses are numbered 5000 or higher. Courses at the 5000 level are open only to students with graduate standing and senior undergraduate students who meet specific criteria. Courses at the 6000 level and higher are limited to students admitted to a doctoral program, or graduate students who meet specific criteria. Please consult the specific program for additional details or requirements.

Graduate Credit for Undergraduate Courses

Certain 4000-level undergraduate courses under the Colleges of Liberal Arts and the College of Education and Human Development may be designated for graduate credit. The catalog descriptions of such courses generally include the phrase "May be taken for graduate credit." Students taking these courses for graduate credit will be required to complete extra course assignments. If a graduate student registers for a 4000-level course, the student will be assumed to be taking the course for undergraduate credit unless the student receives permission from the course instructor and academic advisor to take the course for graduate credit. Permission must be granted and the request processed through the College of Graduate Studies at the time of registration, but no later than the 12th class day during a fall or spring semester or the 4th class day during a summer session.

A graduate-level designation for a 4000-level course does not automatically indicate approval for the course to be included in a graduate degree plan. Each course in a degree plan must be approved in advance by the student’s graduate advisor or committee and meet the university requirements.

Graduate Study by Undergraduates

1. Reservation of Work for Graduate Credit

A senior student in the last semester of undergraduate work may enroll in graduate work and reserve the course work for graduate credit provided that

a. The student has a cumulative grade point average of 3.0 or better,
b. The dean of the college in which the work is offered has granted written approval, and
2. Graduate Work for Undergraduate Credit
A senior student in the last semester or summer session of undergraduate work may enroll in graduate work to be applied toward the baccalaureate degree provided that
a. The student has a cumulative grade point average of 3.0 or better,
b. The dean of the college in which the work is offered has granted written approval,
c. The chair of the student’s major department and the dean of the student’s undergraduate college have granted written approval, and
d. The student has not reserved the course work for graduate credit-unless enrolled in a 3+2 program.
e. Graduate credit hours used to meet the requirements of a baccalaureate degree may not be used to meet the requirements for a graduate degree-unless enrolled in a 3+2 program.

Maximum Course Load
A graduate student may not register for more than 12 hours in a regular semester without the approval of the appropriate college dean.

A student may not register for more than 6 hours of course work in a single session of summer school without the approval of the dean of the college in which the student is majoring. A student may not register for more than a total of 12 hours of course work in the combined summer sessions (not counting Maymester) without the approval of the college dean.

Repetition of a Course
Repetition of a Course to Raise a Grade: A course in which the final grade is C or lower may be repeated for a higher grade. A course in which the final grade is a B may be repeated for a higher grade only with the permission of the Graduate Dean. A graduate student may retake a maximum of two courses during graduate study in the University. The student may repeat each course only one time. All grades received for the course will be computed in the grade point average.

Repetition of a Course for Multiple Credit: A course may be repeated for multiple credit towards graduation only when so designated in the course description and approved by the faculty or program advisor as designated by the College in which the student is enrolled.

Maximum Hours Graded Credit/No Credit
See “Credit/No Credit Grading” in the catalog section “General Academic Policies and Regulations (p. 11)” for information on the maximum number of semester hours graded credit/no credit permitted for graduate degrees.

Responsible Conduct of Research
All faculty, staff, and students conducting research at Texas A&M University-Corpus Christi are responsible for ensuring ethical conduct in research. The responsibility for the ethical conduct of student research is jointly held by the instructor and the student, each being fully responsible for the research. Approval to conduct research involving human subjects, animals, or biohazards, which may require Institutional Review Board, Institutional Animal Care and Use Committee, and/or Institutional Biosafety Committee review. Review must be obtained prior to conducting any data collection. The determination concerning requirement for review is made by the Compliance Officer and not by the researcher. Training is available at https://www.citiprogram.org. Contact the Compliance Officer for additional information at 361-825-2497.

Protection of Human Research Subjects
Texas A&M University-Corpus Christi must ensure that research subjects are properly informed of their rights, do not bear any inappropriate risk, have properly consented to their involvement, and are provided a favorable climate for participating in scientific inquiry. In compliance with federal regulations, the University requires all research involving human subjects to be approved by the Texas A&M University-Corpus Christi Institutional Review Board (IRB). See University Procedure 15.99.01.C1.01, Use of Human Subjects in Research, for information on this topic.

Protection of Animals in Research
Texas A&M University-Corpus Christi has an Institutional Animal Care and Use Committee (IACUC) that meets all federal requirements, as defined in the Animal Welfare Act (AWA). The IACUC is responsible for the oversight, evaluation, and assurance of compliance for the institution’s animal care and use program. In compliance with federal regulations, the University requires all research involving vertebrates to be approved by the Texas A&M University-Corpus Christi IACUC committee. See University Procedure 15.99.01.C1.01, Institutional Animal Care and Use Committee, accessible at http://research.tamucc.edu/iacuc/index.html, for information on this topic.

Academic Requirements for Graduate Work
Good Standing: Graduate students, including degree-seeking, certificate-seeking, and non-degree-seeking students, are considered in “good academic standing,” making satisfactory academic progress, if they maintain a minimum 3.0 cumulative grade point average (GPA) on all graduate course work and earn a grade of S (Satisfactory), IP (In Progress), or CR (Credit) on all course work that does not affect grade point average. A higher GPA may be required by some programs. In such cases, the higher standard will be substituted for 3.0 in the discussion below.

Minimum grade requirement. Only grades of A, B, C, S, and CR are acceptable for graduate credit. IP is considered acceptable with respect to the minimum grade requirement. Grades of D, F, U (Unsatisfactory), or NC (No Credit) are not accepted for graduate credit at Texas A&M-Corpus Christi. No more than two grades of C will be accepted as credit for any graduate program.

Other scholastic requirements. Satisfactory academic performance may also include specific program requirements, which can include, and are not limited to, satisfactory research performance, a satisfactory GPA in the major, satisfactory performance in examinations, such as the comprehensive examination, satisfactory performance in the program capstone course, or other specific program requirements.

Scholastic Probation and Enforced Withdrawal
Placement on Scholastic Probation: A graduate student will be placed on scholastic probation if, at the end of any semester or term, the student’s cumulative graduate grade point average falls below 3.0 (or higher GPA set by the program). A graduate student receiving a grade of U or NC for the second time will be placed on scholastic probation.

Removal from Scholastic Probation: A student must achieve a cumulative 3.0 GPA (or higher GPA if required by the program) within completion of the next 9 semester credit hours to be removed from scholastic probation.
is found for short sessions, the Office of the University Registrar will administratively drop those courses in short session/s.*

**Changing Degree Programs**

If a student wishes to change a degree program, the student must submit an application for admission, pay the application fee, and comply with all program requirements as identified under the University and Degree Program Graduate Admission Criteria. No more than 12 semester hours of coursework taken in non-degree seeking, certificate seeking, or previous master's seeking status may be applied to any master's degree and no more than one-fourth of the credit hours required may be applied to any doctoral degree.

**Leave of Absence**

Students experiencing life changing or catastrophic events are encouraged to consult with their department chair and request a leave of absence in writing from the College of Graduate Studies, especially if the leave will impact recency of credit determinations. Evidence of successful continuous progress towards the degree, programmatic changes, and faculty availability will affect consideration of requests submitted after the degree time limit has expired. A student who is in good standing may petition for a leave of absence of no more than two full academic terms. The maximum number of leave of absence requests permitted in a program is two. A request for a leave of absence must be approved in advance by the faculty advisor, the Program Coordinator, the Graduate Dean, and the College Dean. If the Graduate Dean approves the petition, the registration requirement will be set aside during the period of leave. Leaves will be granted only under conditions that require the suspension of all activities associated with pursuing the degree including use of university facilities and faculty mentoring/advice. Counting of the time to the completion of the degree ceases when a leave of absence is granted and resumes when the student re-enrolls to continue the program. Unapproved leaves of absence may result in the student being required to re-apply to his/her program.

In case of extenuating circumstances, a one-semester leave of absence can be extended to a maximum of two full semesters by the student's Faculty Advisor and or Program Coordinator and the Graduate Dean. A student who returns to the University after an approved leave of absence will not be required to submit an application for readmission to the College of Graduate Studies. An international student should visit with an advisor in the Office of International Education to find out how a leave of absence may affect his/her stay or his/her re-entry into the U.S.

**Requirements for Master's Degrees**

In addition to the general requirements above, the following requirements apply specifically to the master's degree.

**Total Hours**

Master's programs normally require a minimum of 36 semester hours of approved graduate credit, 30 of which must be from courses at the 5000 level or higher.

**Transfer of Credit**

In addition to the general Transfer of Credit Policy, the following regulations apply to master's degree course work:

- No more than twelve semester hours of graduate level study may be transferred.
- All transfer work must be appropriate to the degree being sought.
• Specific programs may limit the number of transfer courses allowed to less than twelve.

Please consult the college for additional information on transfer credit.

**Time Limit to Degree and Recency of Credit for Master's Degrees**

The requirements for a Master's degree at Texas A&M University-Corpus Christi must be completed within seven years subsequent to admission to the program. The seven-year period begins the first semester of enrollment and is calculated from the date of degree conferral. Credit that is more than seven years old will not be counted toward a master's degree. Exceptions provided the courses were completed at this university, will require strong justification in writing from the student requesting the exception as well as a revalidation plan. Written approval from the major department chairperson, the dean of the college offering the degree, the Graduate Dean, and the Provost are required. See the revalidation process below.

**Revalidation of Courses Beyond the Seven Year Limit for Master's Degrees**

Courses listed on the plan of study completed more than seven years prior to graduation are considered dated. In order to have dated courses revalidated, the Department Chair or Program Coordinator recommends a revalidation plan, which will verify that the student's knowledge in a specific subject area is current and documented. Options for course revalidation include a written examination, a paper, a project, a course retake, or other equally rigorous academic means appropriate to the discipline to determine the student learning outcomes have been met. Revalidation requests should be submitted on the Revalidation Request Form and accompanied by a written justification, updated degree plan, revalidation plan, and documentation used for revalidation. All revalidation requests and plans must be approved by the student’s advisor, the department chair, the College Dean, the Graduate Dean, and the Provost. The student’s advisor, department chair, and College Dean are responsible for determining whether the student demonstrated sufficient course knowledge necessary for successful course revalidation. Successfully revalidated courses may be included in the student’s plan of study. Failure to follow all designated requirements of the revalidation agreement may result in dismissal from the program. Subsequent requests for revalidation may be considered, but will be denied absent a showing of extraordinary hardship. Graduate students will not be permitted to submit more than 12 semester hours of the program’s courses for revalidation. Students will be required to repeat courses beyond the 12-semester hour limit. Only courses completed at this university are eligible for revalidation.

**Degree Plans**

A copy of a degree plan, developed by the time a student has completed half of the course work in the program, must be submitted to the College of Graduate Studies.

**Thesis Committee**

Students who choose the thesis option within their program of study must form a thesis advisory committee. All committee members must hold graduate faculty status at Texas A&M University-Corpus Christi and are required to participate in all thesis-related activities as applicable (e.g., proposal hearings, final thesis defense/final examinations). More than one dissenting vote in the thesis defense/final examination will constitute failure. Some programs may require a passing vote from all thesis committee members. Contact the program coordinator for more information.

**Exit Requirements: Comprehensive Examination/ Capstone Experience/Creative Project/Thesis**

All programs have a culminating experience. In addition to successful completion of all courses required for graduation, students are required to pass a comprehensive written examination taken during their final semester of enrollment or, if specified by the program, successfully complete a capstone experience or creative project or defend a thesis.

The thesis must be reviewed for plagiarism and be approved by the thesis committee prior to the defense.

Students must be enrolled during the semester in which the thesis defense/final examination occurs and in the semester in which they graduate.

**Second Master's Degree**

A student who holds a master’s degree may take a second MA or MS degree only if the second degree is in a distinctly different field of study. The MBA, MPA, MAcc, and MSN degree may be earned only once.

Students who already hold a master's degree and who wish to receive a master's degree of a different type must complete all college and University requirements for the degree, including a minimum of 30 additional semester hours at Texas A&M University-Corpus Christi. Upon the recommendation of the program coordinator and/or advisor, students may apply up to a maximum of 9 semester hours of related graduate credit from an earlier degree earned at this university to a second master’s or terminal degree at this university. Such credit may be applied to a second master’s degree only if it falls within the recency of credit policy and is approved by the program coordinator and/or advisor as appropriate course work for the degree sought. Some degree programs do not permit any credit from an earlier degree to be applied to a second master’s degree. Please consult the specific program for details. Credit from a degree earned at another institution will not be applied to a second master’s degree at Texas A&M University-Corpus Christi.

**Requirements for Terminal Degree Programs**

There are seven doctoral programs and one Master of Fine Arts (MFA) Program at Texas A&M-Corpus Christi. The College of Education and Human Development offers three doctoral degrees: a Ph.D. in Counselor Education, Ph.D. in Curriculum and Instruction, and an Ed.D in Educational Leadership. The College of Science and Engineering offers three degrees: a Ph.D. in Coastal and Marine System Science, an interdisciplinary program drawing from the natural, social, and computational sciences, a Ph.D in Geospatial Computing Sciences, and a Ph.D. in Marine Biology, an interdisciplinary degree program in collaboration with Texas A&M University-College Station and Texas A&M University- Galveston. The College of Nursing and Health Sciences offers a DNP, Doctor of Nursing Practice. The College of Liberal Arts offers the Masters of Fine Arts.

The goal of terminal degree programs at Texas A&M University-Corpus Christi is to provide students with a comprehensive discipline-specific knowledge base and extensive training in the methods of research/creative output. The programs are designed to encourage students to make contributions that advance their field of expertise.
The student is expected to demonstrate an ability to conduct independent research, and the ability to express thoughts clearly in both verbal and written and/or creative formats. In addition to earning a terminal degree, candidates must successfully complete all requirements, demonstrate a high level of professional skill and performance in their academic work and their internship experience (if required), and submit a dissertation/creative product acceptable to the committee. Specific program requirements are located in the appropriate sections of the catalog.

Texas 99 Hour Rule
The Texas State Legislature has enacted a rule that provides that students at all state universities with over 99 doctoral hours may be subject to the payment of nonresident tuition. A student will generally be able to study at Texas A&M University - Corpus Christi full-time for five complete academic years, including summers, before being affected by the 99-hour rule. For students staying beyond five years, in a number of cases there is still the possibility of a programmatic or individual exemption from the rule. For more information, contact the individual Program Coordinators.

Continuous Enrollment and Residency
Unless on an approved leave of absence, students in terminal degree programs must be registered continuously for a minimum of 3 semester credit hours per long semester (fall and spring semesters) during the academic year and pay the designated tuition and fees. Individual programs may have additional credit hour requirements. Students working on research/scholarly activity toward their dissertation should enroll in the number of credit hours that reflects the extent of study or research activity. International students may have additional registration requirements depending on their visa status and should consult with the Office of International Education to obtain current information. Unapproved Leaves of Absence may result in the student being required to re-apply to his/her program.

In addition, some terminal degree programs require that students continuously register in courses for a minimum of two consecutive terms, which may include summer. The purpose of the residency is to permit professional interaction with program faculty and students. The residency provides an opportunity for sustained intellectual effort/creative output by enhancing exposure to new concepts in discipline, to research methodologies, and to development of research competency with the outcome resulting in a dissertation containing original research or a solo MFA final thesis and exhibition. For specific residency requirements, consult the degree requirements sections of the individual terminal degree programs.

Students must enroll during the semester in which the dissertation defense/final examination occurs and in the semester in which they graduate.

Time Limit to Degree and Recency of Credit for Terminal Degree Programs
The requirements for a terminal degree at Texas A&M University-Corpus Christi must be completed within ten years subsequent to admission to the terminal degree program. The ten-year period begins with the first semester in which the student enrolls and is calculated from the date of degree conferral. Students have a maximum of five years to advance to candidacy and a maximum of 5 years from candidacy to successfully defend the dissertation. Students who exceed the candidacy deadline may request an extension. Candidacy extensions require strong justification in writing from the student and must include a plan for timely completion of the comprehensive examination, the proposal, and the final dissertation. The extension must be approved by the student’s advisor, the department chair, the College Dean, and the Graduate Dean. Credit that is more than ten years old will not count toward a terminal degree. Exceptions will only be considered for, courses completed at Texas A&M University-Corpus Christi, and will require strong justification in writing from the student requesting the exception as well as a revalidation plan. Written approval from the major department chair, the Dean of the college from which the degree is offered, the Graduate Dean, and the Provost are required. See the revalidation process below.

Revalidation of Courses Beyond Degree Time Limit (for Terminal Degrees)
Courses listed on the plan of study completed more than ten years prior to graduation are considered dated. The department chair or program coordinator recommends revalidation of dated courses. Revalidation will verify that the student’s knowledge in a specific subject area is current and documented. Options for course revalidation include written examinations, 3-5 page essay, a project, course retake, or other equally rigorous academic means appropriate to the discipline to determine that the student learning outcomes have been met. Revalidation requests should be submitted on the Revalidation Request Form and accompanied by a written justification, updated degree plan, revalidation plan, and documentation used for revalidation. All revalidation requests and plans must be approved by the student’s advisor, the department chair, the College Dean, the Graduate Dean, and the Provost. The student’s advisor, department chair, and College Dean are responsible for determining whether the student demonstrated sufficient course knowledge necessary for successful course revalidation. Successfully revalidated courses may be included in the student’s plan of study. Failure to follow all designated requirements of the revalidation agreement may result in dismissal from the program. Subsequent requests for revalidation may be considered, but will be denied absent a showing of extraordinary hardship. Graduate students may not submit more than 12 semester hours of their program’s courses for revalidation. Courses beyond the 12-semester hour limit must be repeated. Only courses completed at this university are eligible for revalidation.

Credit Hour Requirement
Normally a doctoral degree will consist of a minimum of 90 hours beyond the bachelor’s degree for students admitted to a doctoral program directly after completion of the undergraduate degree. For students who have completed a master's degree, a minimum of 60 hours is required for the doctoral degree. The majority of the doctoral degree course work must be doctoral level courses.

An MFA degree consists of 60 hours beyond the bachelor’s degree.

Transfer of Graduate Credits
In addition to the general Transfer of Credit Policy, specific requirements must be met for courses that may transfer for terminal degree credit. The following rule applies to these courses, with the exception of degrees offered jointly.

- The student must have been enrolled as a terminal degree student when the coursework was completed.
- The maximum amount of transfer credit from another doctoral degree program accepted toward the Texas A&M University-Corpus Christi degree is one-fourth of the credit hours required for the A&M-Corpus Christi degree.
Doctoral Committee
The student will choose a doctoral committee chair from among the regular graduate faculty members of the doctoral program. Doctoral committees will be composed of a minimum of four Texas A&M University-Corpus Christi graduate faculty members and will include the doctoral committee chair, two other graduate faculty members and a Graduate Faculty Representative, selected by the Graduate Dean from a different department or college and not with another doctoral program. The Graduate Dean will officially appoint the doctoral committee. Normally, the student’s advisor and the committee members recommended by the student and the advisor will be faculty members from the program offering the degree. Persons with unique and appropriate expertise may be appointed to the dissertation committee upon approval of the Graduate Dean for the dissertation portion of the doctoral program. All doctoral committee members representing the student’s discipline may be required to review and approve degree plans and participate in qualifying examinations, proposal hearings, comprehensive and final examinations, including defense of dissertation, and all are required to sign relevant documents. More than one dissenting vote in the dissertation defense/final examination will constitute failure. The Graduate Faculty Representative will not be required to attend or evaluate materials related to the comprehensive examination. The signature of the student is required on the degree plan.

Graduate Faculty Representative
The Graduate Faculty Representative helps ensure that the quality of the graduate degree is appropriate for Texas A&M University-Corpus Christi and that students receive fair and reasonable treatment in their graduate experience. All committee members will be provided a copy of the dissertation allowing for a two-week turnaround before the defense of dissertation and final exam.

Degree Plan
All students will develop a degree plan that is consistent with the requirements of the program. A degree plan must be developed by the time the student has completed half of the course work in the program, and copies should be forwarded to the College of Graduate Studies to be approved by the Graduate Dean. All doctoral degrees will have a minimum of 90 credits beyond the bachelor’s degree. For students who have completed a master’s degree, a minimum of 60 credits beyond the master’s degree is required for the doctoral degree plan. In the case of a 90-credit-hour doctoral degree plan, up to 30 hours may be from a master’s degree program in an appropriate field of study. Changes in the degree plan must be approved by the doctoral committee chair, the College Dean, and the Graduate Dean.

Comprehensive Exam
Each student must take a written comprehensive exam. The timing and content of the exam will be determined by the program faculty and will focus on the field in which the degree is taken. All faculty members responsible for portions of the written exam will provide a response of satisfactory or unsatisfactory (or other grade) within one calendar week and inform the advisor of reasons for the unsatisfactory grade if such a grade is given. The doctoral committee members representing the student’s discipline will then determine the outcome. More than one dissenting vote in the comprehensive exam constitutes failure. The examination result must be reported to the Graduate Dean within 2 weeks of the completion of the exam. In the event of a failure, one repetition will be permitted and a reexamination date will be negotiated with the doctoral committee.

Candidacy
A student is advanced to candidacy after successful completion of the comprehensive exam. Doctoral students have a maximum of five years to advance to candidacy.

Dissertation Proposal
A research proposal must be submitted in written format and be presented in a meeting between the student and the doctoral committee. The dissertation should include the application of sound research strategies applied to identified problems within one’s discipline. Dissertation research typically adds to the literature in one’s field of study. The proposal should be submitted at least two weeks prior to the proposal hearing and must be submitted no fewer than two semesters prior to the student’s anticipated graduation.

Dissertation Defense/Final Examination
The comprehensive exam must be passed and courses in the plan of study completed with a GPA of not less than 3.0 before the dissertation defense/final examination will be scheduled. The dissertation defense/final examination must cover the dissertation but need not be limited thereto.

It is the responsibility of the student to apply to the College of Graduate Studies in order to schedule the defense. Prior to the defense/examination, the following should occur:

1. The student submits a copy of the dissertation to each committee member for review allowing for a two-week turnaround (normally a minimum of 8 weeks prior to graduation).
2. After reviewing the dissertation, the dissertation committee chair will sign the form titled Preliminary Agreement to Schedule the Dissertation Defense indicating preliminary acceptance of the dissertation. Preliminary approval indicates that major changes will not be required in the final copy of the dissertation. The Preliminary Approval of Dissertation form will not be signed if major changes are required in the dissertation, or if committee members determine that further study is necessary.
3. After the Preliminary Agreement to Schedule Dissertation form is signed by the dissertation chair and the program coordinator or department chair, the student must submit the form to the College of Graduate Studies by the deadline specified in the academic calendar (normally eight weeks prior to graduation). Upon receipt of the signed form, the College of Graduate Studies will announce the dissertation defense/final examination. The defense must be scheduled a minimum of six weeks prior to graduation. Unless the deadline is met, the student will not be permitted to graduate until the following semester.
4. The dissertation needs to be reviewed for plagiarism and approved by the dissertation committee prior to the defense.
5. Oversight of the dissertation defense/final examination will be the responsibility of the dissertation chair. All members of the dissertation committee will attend the dissertation defense/final examination. One committee member, excluding the chair, may participate electronically. The dissertation defense/final examination will be open to all members of the university community. However, at some point the dissertation defense/final examination will close to permit the completion of the examination by the doctoral committee. The dissertation chair will submit a final report of the outcome to the Graduate Dean.
Subsequent to the dissertation defense/final examination, the student will submit an electronic copy of the dissertation, no less than four weeks prior to graduation, to the College of Graduate Studies where it will be reviewed and given final approval and acceptance by the university. The format of the submitted dissertation must conform to university guidelines, which are available at the College of Graduate Studies website. If corrections are required, the dissertation will be returned to the student for revision.

Application for Degree
The doctoral degree is awarded at each semester’s graduation ceremony: spring (May), fall (December), and summer (August). Students must submit a completed application for graduation to the Office of Admissions and Records by the deadline indicated in the Academic Calendar.

Pathways to the Doctorate
Pathways to the Doctorate is a program dedicated to increasing the number, quality, and diversity of master’s and doctoral graduates across all disciplines within The Texas A&M University System. Consisting of eleven universities and seven state agencies, the System spans the State of Texas. This enables the System to recruit top students from a variety of geographic, socio-economic, racial, ethnic, and cultural environments. The Pathways to the Doctorate program is one approach to meeting the goals of the state’s higher education plan, Closing the Gaps. The goal of Pathways to the Doctorate is to attract high achieving students within The Texas A&M University System to pursue careers in higher education.

Through a variety of activities such as seminars and workshops, inter-institutional exchange programs, a mentoring program, and an annual research symposium with system-wide participation, the Pathways program aims to:

- Create a pathway for talented students to pursue graduate education
- Foster opportunities for faculty, graduate students, and undergraduate students to collaborate and to foster innovative research and interpersonal communication skills
- Enlighten and encourage students and teachers (K-12 through college) to see that science and technology are essential to lead a life of discovery and fun
- Help meet faculty needs as post-secondary enrollment grows and current faculty retire.

Graduate Assistantships
There are three types of graduate assistants at Texas A&M University-Corpus Christi: graduate teaching assistants, graduate research assistants, and administrative assistants. Students interested in serving as graduate assistants should contact the coordinator of their graduate program, as well as Career Services, to check availability. Graduate students interested in becoming teaching assistants in the First-Year Seminar Program should contact University College for information. Graduate assistants receive a stipend to help them finance their graduate studies.

Any student serving as a graduate assistant with a 50% FTE appointment during a regular semester (fall or spring) must be enrolled for at least 6 hours of graduate-level coursework in that semester. Individual colleges or programs may have additional credit hour requirements. Any student serving as a graduate assistant with a 50% FTE appointment during the summer must be enrolled for at least 3 hours of graduate level coursework during the combined summer terms. Any exceptions to these rules must have the approval of the Graduate Dean.

Teaching assistants must meet the enrollment requirements in the previous paragraph and must make steady progress toward the completion of an advanced degree. Any exceptions to this rule must have the approval of the Graduate Dean.

Non-resident or international students holding a 50% FTE graduate assistantship receive instate tuition and fees at the rate charged to Texas residents for the semester in which they hold the assistantship appointment.

Tuition, Fees & Financial Assistance
Tuition and Fees
Information on current tuition and fees can be viewed at http://businessoffice.tamucc.edu/tuition_and_fees%20/index.html (http://businessoffice.tamucc.edu/tuition_and_fees%20/).

Tuition and fees are pending approval and are subject to change.

Texas Residency
All students attending Texas A&M University-Corpus Christi who are non-residents of Texas will be charged additional tuition in accordance with State law.

In general, students will be classified as Texas residents if they meet one or more of the following criteria:

1. Any individual who has resided in Texas from birth.
2. Any individual 18 years of age or over who has come from outside Texas and who is gainfully employed in Texas for a 12-month period immediately preceding registration in any institution of higher learning.

Additionally, there are certain other circumstances under which an individual may be classified as a Texas resident. Residency status will be established according to the interpretations by the Texas Higher Education Coordinating Board pursuant to Title 19, Chapter 21, Section B of the Texas Education Code. The Coordinating Board (https://texreg.sos.state.tx.us/public/readtacSext.TacPage/?sl=R&app=98&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=1&ch=21&rl=25) rules on determining residency status.

Although classified as a non-resident, a member of the armed services who is assigned to duty in Texas is privileged to register at the Texas resident fee rate. This includes immediate family members.

Under State law, certain other categories of students may be eligible for tuition and fees exemptions or adjustments. See the semester class schedule for more information.

The responsibility of registering under the proper residence is placed upon the student. If there is any possible question of legal residence, the student should confer with the Office of the University Registrar of Texas A&M University-Corpus Christi and have such question settled prior to registration.

A non-Texas resident seeking to change residence status must fill out and submit to the Office of the College of Graduate Studies a Residency Status Questionnaire prior to registration. For more information about
Texas Residency can be found at http://admissions.tamucc.edu/residency.html.

Financial Obligations
Students are expected to pay all financial obligations to the University when due. Failure to pay such obligations may result in the student's removal from the University, transcripts placed on hold, exclusion from final exams and graduation, and/or exclusion from further enrollment. Financial obligations include, but are not limited to, the following: returned checks; returned check charges; library fines, lost or damaged book charges, or replacement costs of long-overdue books; loss or breakage of instructional material or equipment; dormitory fees; installment payments; parking fines; and repayment of financial aid loans and emergency loans.

All tuition and fee costs are due upon registration, and failure to pay may result in the loss of the student's schedule. Registration is not completed until the University Business Office has received payment and all necessary documentation has been completed. Regardless of the type of deferral, the ultimate financial responsibility rests with the student.

There will be a late payment fee of $50.00 assessed for students who pay after the deadline established by the University Business Office. An additional fee of $100.00 will be collected for registration reinstatement into classes lost after non-payment by the student. The University Business Office periodically performs audits on students' accounts to verify that the proper amount of tuition and fees has been paid; this may result in additional charges or refunds.

Returned Checks
When students write checks to the University or submit payments online via Webcheck that are not honored by the bank, and are subsequently returned to the University, the individual who gave the check will be notified. Within seven days of such notification, the individual should pay the amount of the check plus a returned check charge of $25.00 to:

Business Office
Texas A&M University-Corpus Christi
6300 Ocean Drive Unit #5765
Corpus Christi, Texas 78412-5766

This may be done in person or by mail and must be in the form of cash, money order, or cashier’s check. The University will not accept a personal check in payment of a returned check.

Should a returned check not be paid within the allotted time, the individual will be subject to disciplinary action, including removal from the University, legal action as prescribed by law and payment of all collection fees. If an individual has written three (3) checks to the University that have been returned unpaid by their banking institution for any reason, the University will no longer accept checks from that individual.

Returned checks written for SandDollar accounts will result in the account being inactivated until the check and the returned check charge are paid in full.

Refund of Tuition and Fees
A student officially and completely withdrawing from the University during the semester may be subject to a refund of applicable tuition and fees according to the following scale:

10 Weeks or Longer Term:
- 100% prior to the University's first official class day of the semester
- 80% during the first five class days of the semester
- 70% during the second five class days of the semester
- 50% during the third five class days of the semester
- 25% during the fourth five class days of the semester
- No refund thereafter

Less than 10 Weeks but Greater than 5 Weeks Term:
- 100% prior to the University's first official class day of the semester
- 80% during the first three class days of the semester
- 50% during the second three class days of the semester
- No refund during the seventh class day and thereafter

5 Weeks or Less Term:
- 100% prior to the University's first official class day of the semester
- 80% during the first class day of the semester
- 50% during the second class day of the semester
- No refund during the third class day and thereafter

The number of class days is counted from the first official class day of the University each semester, not the meeting days of a particular class.

For more information, contact the Business Office or go to http://businessoffice.tamucc.edu/ and click on Important Dates.

The process to withdraw from the University begins in the Office of Admissions and Records.

A student dropping a course or courses yet remaining enrolled in the University in other courses may apply for a refund of applicable tuition and fees as follows:

Ten Weeks or Longer Term:
- 100% prior to and including 12th class day of the semester
- No refund after 12th class day

Less than Ten Weeks but Greater than Five Weeks Term:
- 100% prior to and including 4th class day of the semester
- No refund after 4th class day

Five Week Summer Term:
- 100% prior to and including 3rd class day of the semester
- No refund after 3rd class day

2½ Half Week Summer Term:
- 100% prior to and including 2nd class day semester
- No refund after 2nd class day

For more information, contact the Business Office or go to http://businessoffice.tamucc.edu/index.html (http://businessoffice.tamucc.edu/) and click on Important Dates.

The days of classes are counted from the first official class day of the University each term, not the first meeting day of a particular class.
After an audit of all fees has been made, the refund process will begin. This process requires a reasonable length of time. No refunds are given on audited courses.

Students using the Installment Payment Plan who withdraw from the institution will have the refund, if any, calculated based on the total amount of tuition and fees due at the time of registration, not the amount of tuition and fees paid at the time of withdrawal.

Students with financial aid who withdraw may be subject to the federal refunding timetable and rates. Students should consult with the Financial Aid Office about their situation before withdrawing.

**BankMobile and Refunds**

A refund will occur when a credit balance remains on each student’s Business Office account after all charges are paid. A credit balance may occur due to overpayments, dropped courses, withdrawals or financial aid (loans, scholarships, grants, etc...). Refunds are issued to the students by BankMobile. A new student, upon registration, will receive in the mail, from BankMobile, a Refund Selection Kit along with refund preference instructions. BankMobile will use the Billing Address on file with the University to send this correspondence to the student. It is important that this address is current. The Refund Selection Kit will contain a personal code which is used to make your refund selection preference with BankMobile. Once it arrives, you’ll simply login to S.A.I.L, select Student, Student Account and Student Refunds to select your refund preference. The three preferences are:

1. Direct Deposit into a bank account of their choice,
2. Opening a BankMobile Vibe Account or
3. Paper Check.

If the student does not make a refund selection preference, BankMobile will not be able to process the refund.

New students will begin the process of receiving their Refund Selection Kit approximately 5-9 business days after registration. If a student does not receive their Refund Selection Kit they should contact the Business Office (http://businessoffice.tamucc.edu/) at 361-825-2600.

**Fees for Multiple Repeats of a Course**

The State of Texas will not provide funds to state institutions of higher education for semester credit hours related to a course in which a student is enrolled for the third time. Therefore, as permitted by state law, the University will charge additional fees to a student who registers for a course for the third time or more. The fee will be $100 per semester credit hour for such courses. The courses counted toward the limitation include all hours attempted by the student except: Thesis, Dissertation, Individual Music Lessons, Theater Practicum, Music Performance, Ensembles, Studio Art, certain P.E. and Kinesiology courses, Independent Study (topic changes), Special Topics (topic changes), and Developmental Education (not to exceed 18 semester credit hours).

**Methods of Payment**

The methods of payment that are accepted by the Business Office include cash, checks, credit/debit cards, installment payment plans and emergency loans. Installment payment plans and emergency loans are discussed below. For information on payment by check or credit/debit card, see the Business Office website at [http://businessoffice.tamucc.edu/method_pay.html](http://businessoffice.tamucc.edu/method_pay.html) or call (361) 825-2600.

**Installment Payment Plan (Fall and Spring Only)**

An installment payment plan is available to most students under the provisions of Section 54.007 of the Texas Education Code. The University offers an option to pay by installments: a four-payment plan (25% prior to the start of the semester with three more payments during the semester of 25%). Subsequent installment payments should be made directly through S.A.I.L or to the Business Office. A nonrefundable processing fee of $20.00 will be charged and a late fee of $25.00 will be added to each installment not received by the due date.

Students utilizing the installment option must execute an electronic agreement which sets forth the conditions and repayment schedule of the payment plan selected. Under the provisions of the installment payment option in the law, a student who fails to make full payment of tuition and fees, including any incidental fees, by the due date may be prohibited from registering for classes until full payment is made. A student who fails to make payment prior to the end of the semester (last class day) may be denied credit for work done that semester.

Students who register for classes and wish to use an Installment Payment Plan must sign up online though the SAIL website at [http://sail.tamucc.edu/](http://sail.tamucc.edu/). More information about Installment Payment Plans can be found on the Business Office website at [http://businessoffice.tamucc.edu/faq_install.html](http://businessoffice.tamucc.edu/faq_install.html).

**Emergency Loans**

Short-term emergency loans are available to students who need assistance in covering tuition and fees and books. Funds are limited and will be provided on a first-come, first-served basis to eligible applicants. Information on eligibility requirements and the application process can be found on the Business Office website at [http://businessoffice.tamucc.edu/faq_emergency.html](http://businessoffice.tamucc.edu/faq_emergency.html). There is a non-refundable processing fee of $25.00 per loan. A late payment fee of $25 will be added to each loan that is not paid in full by the due date.

**Fees**

Information on current tuition and fees can be found at the Business Office website at [http://businessoffice.tamucc.edu/tuition_and_fees%20/index.html](http://businessoffice.tamucc.edu/tuition_and_fees%20/index.html).

**Fees for Proctored Exams**

Courses may require the use of exam-proctoring involving third party charges. Exam-proctoring charges may range from $1 - $50.00 per exam. Students may be required to schedule exams at least 24 hours in advance or incur late scheduling charges. All costs for exams are the responsibility of the student. Students may also be responsible for providing webcams to be used in test proctoring.

**Parking Fees**

All students who park their vehicles on campus lots, including the lots at the housing complexes, must obtain a permit to park in the designated areas. The University Police Department implements and enforces the parking regulations. Information on costs of parking permits and access to the TAMUCC Parking Portal can be found on the University Police Department website at [http://police.tamucc.edu/park/parkingRegulations.html](http://police.tamucc.edu/park/parkingRegulations.html).
Designated Tuition
Information on current tuition and fees can be found on the Business Office website at http://businessoffice.tamucc.edu/tuition_and_fees%20/index.html.

Graduate Student Tuition
Information on current tuition and fees can be found on the Business Office website at http://businessoffice.tamucc.edu/tuition_and_fees%20/index.html.

Lifetime Learning Tax Credits
Go to https://www.irs.gov/newsroom/tax-benefits-for-education-information-center for information about Hope and Lifetime Learning tax credits. The Business Office mails out 1098-T forms to students by January 31st for the preceding calendar year.

Financial Assistance
Programs to assist students and parents in financing an education at Texas A&M University-Corpus Christi are administered by the Office of Student Financial Assistance. Students may apply for financial assistance through scholarship, grant, work study, and loan programs.

Eligibility for the majority of financial aid programs is determined through a financial needs analysis. This analysis is made after the student completes and submits a Free Application for Federal Student Aid (FAFSA). Before a graduate student can be considered for financial aid, the student must:

1. be officially admitted to the University;
2. be working toward a degree and classified by the Office of Research and Graduate Studies as degree-seeking;
3. be enrolled at least half-time (5 semester hours during a long semester or 3 hours during summer term);
4. Graduate students enrolled in a cooperative education (co-op) experience will be allowed fewer than the required hours to be considered full-time.
5. Graduate students enrolled in mini-term online courses will be allowed fewer than the required hours to be considered full-time (3 hours per term).
6. meet the deadlines set by the Office of Student Financial Assistance;
7. not be in default or owe a refund on any Title IV grant(s) or loan(s);
8. provide proof of eligibility if not a citizen of the United States;
9. provide documents that support information reported on applications for financial aid;
10. meet minimum G.P.A. requirements of a 3.0 and maintain satisfactory academic progress as required for financial aid eligibility to fulfill federal requirements.

Financial aid programs available to graduate students include Federal College Work Study, Texas Public Educational Grant (resident and non-resident), several Federal Loan programs, and various scholarships.

Federal Loans are distributed in two disbursements in accordance with federal regulations. If the student is receiving a loan for one term, the first disbursement will be at the beginning of the semester and the second after the midpoint of the semester. A loan that covers both fall and spring terms will result in a disbursement at the beginning of each semester.

Most financial aid programs have a limited amount of funds, which must be granted on a first-completed, first-awarded basis. Therefore, students are strongly encouraged to have their financial aid files completed by February 15 for summer, by April 1 if applying for assistance for both fall and spring, or by November 1 if applying for assistance for spring only.

Application forms and detailed instructions on applying for financial aid are available through the Office of Student Financial Assistance and at the following web address: http://osfa.tamucc.edu.

The Office of Student Financial Assistance does not administer graduate assistantships.

Satisfactory Academic Progress Policy
The Higher Education Act of 1965, as amended, mandates that institutions of higher education establish policies to monitor the academic progress of students who apply for and/or receive federal financial assistance. Texas A&M University-Corpus Christi applies its minimum standards to all federal, state, and institutional financial assistance programs in order to maintain a consistent policy for all financial assistance applicants. Though this policy establishes the minimum standards for all financial assistance programs at A&M-Corpus Christi, an individual aid program may have unique qualitative and/or quantitative standards specific to the program as mandated by law or the program's governing entity. Examples include Academic Scholarships and University Scholarships.

To be awarded or receive any financial assistance, a student must be admitted to the University in good academic standing, be enrolled in credit courses leading toward a degree or teaching certificate, and maintain satisfactory academic progress in the course of study pursued. This policy is consistently applied to all enrollment periods regardless of whether or not the student received aid.

Minimum Standards of Satisfactory Academic Progress
At the end of each academic year (spring semester), students must show satisfactory progress toward a degree or certificate based on the following elements:

1. Academic Standards
2. Maximum Frame for Degree/Certificate Completion
3. Successful Credit Hour Completion Rate

Academic Standards
Students must maintain the following cumulative grade point average to retain financial aid eligibility:

Graduate Students
3.0 Cumulative GPA

Maximum Attempted Hours for Degree/Certificate Completion
For financial assistance purposes, students enrolled in graduate degree or certification programs that require 36 semester hours will be limited to 54 attempted hours to complete their program.

Students enrolled in graduate programs that exceed 36 required hours will have their maximum attempted hours status evaluated on a case-by-case basis.

Attempted hours include all transfer hours and all registered hours at A&M-Corpus Christi per semester whether or not the student earns a
grade, receives credit, or received financial assistance. The following are
considered hours attempted, but not completed/earned:

- Grades of F or NC
- I or incomplete
- W or withdrawal from courses

The following are considered hours attempted and successfully
completed/earned:

Grades of A, B, C, D, CR, and IP

**Successful Credit Hour Completion Rate**

Students must successfully complete/earn a minimum of 67% of all
attempted semester credit hours. Note: All partial credit hours will be
rounded down to the nearest hour.

Examples:

1. If a student attempts (registers for) 18 credit hours in an academic
   year, the student must complete a minimum of 12 credit hours
   (18 x 67% = 12) in order to meet the requirements for satisfactory
   academic progress for the year.
2. If at the end of the second year, a student has attempted 36 hours,
   the student must have completed a minimum of 24 credit hours (36 x
   67% = 24) to meet the standards for satisfactory academic progress.

**Review Policy**

At the end of each spring semester, the Office of Student Financial
Assistance will review the progress of each financial assistance recipient
to determine eligibility for aid consideration for the upcoming academic
year.

**Financial Assistance Suspension Policy**

If it is determined that a student does not meet the minimum satisfactory
academic progress requirements, the student will automatically be placed
on financial assistance suspension and will be notified accordingly.
Students on financial assistance suspension are not eligible for any type
of federal, state, or institutional aid.

Note: Students on scholastic suspension/dismissal or enforced
withdrawal will also be placed on financial assistance suspension.

**Conditions for Reinstatement**

Students may attend the next semester/term at A&M-Corpus Christi
without financial assistance to reinstate eligibility. If, at the end of the
semester/term, the student again meets the minimum satisfactory
academic progress standards, the student may submit a written
request to the Office of Student Financial Assistance to have his or her
application for aid reinstated for the next and subsequent semesters/
terms of the current academic year. Continued eligibility for the next
academic year will be determined again at the end of the spring semester
during the regular review process.

**Appeal Policy**

Students who fail to maintain satisfactory progress due to extenuating
circumstances may submit an application for appeal to be reviewed by
the Aid Appeals Committee. To appeal for reinstatement of financial
assistance eligibility, students must complete and submit the Request for
Appeal form to the Office of Student Financial Assistance. A completed
appeal application includes a letter and supporting documentation
providing a detailed explanation of the extenuating circumstances, such
as personal injury or medical problems, illness or death of an immediate
family member, etc. In addition, if a student has exceeded the maximum
attempted hours and is appealing based on a change of major, the
student should state the reason for the change and indicate the number
of hours remaining to be taken in the new major. The student’s academic
advisor must complete the advisor section of the application.

If the appeal is approved by the Aid Appeals Committee, financial
assistance will be continued as if the student is otherwise eligible. If
denied, the student may request a meeting with the appeals committee.
If the outcome of the meeting is not approval of the appeal, the student
must reinstate eligibility according to actions outlined in the previous
section.

The decision of the committee is final and may include additional
conditions the student must meet as deemed appropriate by the
committee. All students (approved or denied) will be reviewed again for
continued eligibility at the end of the academic year during the regular
review process.

**Refund and Repayment Policies**

Students who register and then withdraw from their classes at the
University will have their aid recalculated based on the number of days
they attended class. If a student withdraws from all classes prior to the
first class day, the student may be required to repay any and all financial
assistance received. Students should consult the Satisfactory Academic
Progress Policy to determine if their withdrawal will affect future aid
eligibility.

**Scholarships**

Students interested in applying for graduate scholarships may contact
the Office of Research and Graduate Studies for information. It is
also important that students actively seek information through their
specific colleges or departments, including information on deadlines and
requirements.

A non-resident U.S. citizen or international student who is a recipient of a
competitive University scholarship may be eligible for the Texas resident
tuition rate. The student must have competed with other students,
including Texas residents, for the scholarship. Contact the Office of
Research and Graduate Studies website for more information, http://
gradschool.tamucc.edu/index.html (http://gradschool.tamucc.edu/).

**Emergency Loans**

Short-term emergency loans are available to students who need
assistance in covering tuition and fees and school-related expenses such
as books. Detailed information regarding eligibility requirements and the
application process can be found in the Business Office.

**Veterans Educational Benefits**

**Veterans Affairs Office**

The mission of the Texas A&M University-Corpus Christi Veterans
Affairs Office is to assist service members, veterans, and dependents
in receiving entitled educational benefits and in achieving educational
goals. The Veterans Affairs Office strives to assist active duty
servicemembers and veterans with the transition from military to
academic life. For more information on educational programs and
updates on the Post 9/11 Veterans Educational Assistance Act of 2008,
call (361) 825-2331 or visit the web site http://vets.tamucc.edu.
Enrollment Certification
Certifications for veterans’ educational benefits are submitted to the Department of Veterans Affairs, Muskogee, OK. Visit the Veterans Affairs Office for information on eligibility requirements, applications and forms, and updates on the following benefits:

- Chapter 30 Montgomery GI Bill – Active Duty Educational Assistance Program
- Chapter 1607 Reserve Educational Assistance Program (REAP)
- Chapter 33 Post 9/11 Veterans Educational Assistance Act of 2008
- Chapter 1606 Montgomery GI Bill Selected Reserve
- Chapter 31 Vocational Rehabilitation and Employment Program
- Chapter 32 Post-Vietnam Era Veterans’ Educational Assistance Program (VEAP)
- Chapter 35 Survivors’ and Dependents’ Educational Assistance Program

The applicant must provide a Certificate of Eligibility (COE) from the Dept. of Veterans Affairs showing the benefit has been awarded. A Veterans Intent to Enroll Form is required each term for certification and provides the VA Certifying Official with authorization to submit an enrollment certification on behalf of the student. Students must notify the Veterans Affairs Office of any enrollment changes, to include: added or dropped courses, withdrawals, or change of major. A degree plan from the academic advisor is required for the veteran file. Texas A&M University-Corpus Christi does not participate in the VA Advance Payment Program.

Hazlewood Exemption
In accordance with the Texas Education Code, Section 54.203, Texas veterans and eligible dependents must apply for benefits under the Hazlewood Act or the Hazlewood Legacy Act each term. An exemption of tuition and fees, with the exception of the student services fee, is granted per term for Hazlewood eligible students, up to 150 cumulative credit hours. Students must submit the application, an original, certified, or notarized copy of the veteran’s discharge papers (VA Form DD-214 member 4 copy), and other qualifying documentation, and a letter from the Muskogee, Oklahoma VA Regional Processing Office stating that they have exhausted federal veterans’ educational benefits. The Hazlewood file must be completed, and the exemption requested by the census date per term. The number of credit hours a student is registered for on the census date of a given term is the number of Hazlewood credit hours reported for the term to the Texas Higher Education Coordinating Board.

Training Time
For information on enrollment status requirements for students receiving financial assistance, administered through the Office of Financial Assistance, review that section of the catalog. The criteria for enrollment status of students receiving financial assistance and training time for Department of Veterans Affairs benefits may differ. Contact the Veterans Affairs Office to determine training time criteria for the various summer terms.

Graduate Assistantships
There are two types of graduate assistants at Texas A&M University-Corpus Christi: graduate teaching assistants and, graduate research assistants. Students interested in serving as graduate assistants should contact the coordinator of their graduate program to check availability. Graduate students interested in becoming teaching assistants in the First-Year Seminar Program should contact the Co-Directors of the University Core Curriculum Program for information.

Graduate assistants receive an assistantship, which helps them finance their graduate studies.

Any student serving as a graduate assistant with a 50% FTE appointment during a regular semester (fall or spring) must be enrolled for at least 6 hours of graduate-level coursework in that semester. Individual programs may have additional credit hour requirements. Any student serving as a graduate assistant with a 50% FTE appointment during the summer must be enrolled for at least 3 hours of graduate level coursework during the combined summer terms. Any exceptions to these rules must have the approval of the Graduate Dean.

Teaching assistants must meet the enrollment requirements in the previous paragraph and are expected to make steady progress toward the completion of an advanced degree. Any exceptions to this rule must have the approval of the Graduate Dean.

Non-resident or international students holding a 50% FTE graduate assistantship receive instate tuition and fees at the rate charged to Texas residents for the semester in which they hold the assistantship appointment.

Academic and Student Services

Academic Support Services
Texas A&M University-Corpus Christi provides a variety of academic support services that complement the academic programs and help students reach their educational goals.

Office of Academic Testing
The Office of Academic Testing at Texas A&M University-Corpus Christi serves the student population and the Coastal Bend community with their testing needs. For information on TExES examinations, see the “College of Education and Human Development (p. 61)” section of the catalog. Additional information regarding Academic Testing services is available on the Academic Testing website, http://testing.tamucc.edu/.

Center for Academic Student Achievement (CASA)
The Center for Academic Student Achievement (CASA) is committed to providing academic support services to help students reach their educational goals and to succeed in the university environment. CASA programs are designed to improve the retention and graduation rates of University students. These academic support services include tutorials, Writing Center, Supplemental Instruction, mentorship, developmental education (TSI), and student retention assistance. Students are encouraged to contact the Center for Academic Student Achievement, located in the Glasscock Student Success Center (GSSC-CASA), at 361.825.5933 or to visit our website at http://casa.tamucc.edu for hours of operation and schedule of services.

CASA Services
The needs of students attending CASA are individually assessed and academic support services are recommended to aid students in reaching their academic goals. Services are available to all A&M-Corpus Christi students. In order to utilize academic support services such as tutoring and writing support, one must be enrolled at or an alumnus of A&M-Corpus Christi.

The Writing Center
The CASA Writing Center supports the writing process of all University writers, from freshmen to graduate students, as well as to alumni, faculty, and staff. The Writing Center offers face-to-face and online writing
consultations. We also provide faculty-requested writing workshops. Though the Writing Center does accept walk-in sessions based on consultant availability, it is strongly encouraged those seeking assistance schedule an appointment by visiting Casa Writing Center (http://casa.tamucc.edu/tutoring_learning_services/writing_center/).

Most sessions are 30 minutes in length for undergraduate writers. For additional information, please contact Kristen.Ruggles@tamucc.edu or call 361.825.3490.

**Graduate Resource and Opportunity Workspace (GROW)**
GROW, a part of the College of Graduate Studies, provides graduate students exclusive space and resources tailored specifically to academic needs and professional development of graduate students. In addition to coffee, work space, and access to computers and printing, GROW is responsible for providing an array of workshops throughout the year, including but not limited to *Dissertation and Thesis Bootcamp* and *3 Minute Thesis® competition*. Students can also reserve a small group study room for group project work.

For information on GROW, see http://grow.tamucc.edu/

**Faculty Excellence Center**
The Center for Faculty Excellence (CFE) promotes professional growth and development for the faculty at Texas A&M University-Corpus Christi. CFE activities, such as workshops, are open to graduate teaching assistants.

**Courses for Teaching Assistants**
The College of Liberal Arts/First Year Learning Communities Program offers a summer workshop to prepare graduate teaching assistants for teaching first-year seminar courses. The college also offers ENGL 5392 Practicum for Composition Instructors (3 sch), which focuses specifically on preparing English Teaching Assistants.

The College of Science and Engineering offers SMTE 5004 Teaching Assistant Seminar (0 sch), which prepares graduate teaching assistants in the sciences for classroom responsibilities.

**Mary and Jeff Bell Library**
For information on library resources and services, see “Mary and Jeff Bell Library (p. 4)” elsewhere in this catalog.

**Computing Resources**
For information on computing resources, see “Campus Facilities (p. 4)”.

**Academic Accommodations for Students With Disabilities**
Disability Services arranges academic accommodations for persons with permanent disabilities. For more information, see “Disability Services” below.

**Student Services**

**Student Engagement and Success (SEAS)**
Student Engagement and Success aims to foster a healthy academic climate and professional atmosphere that promotes and encourages student leadership, learning, and growth. Services and programs are designed to meet the needs of students with varied backgrounds and interests. Music, arts, special events and multicultural programs contribute to a positive experience on campus and promote an understanding of a diverse and changing global community.

Student Engagement and Success is made up of various departments, including Career Services, Housing, Recreational Sports, University Center, Student Activities, Student Conduct, Disability Services, University Counseling Center, and University Health Center. The Division collaborates with all departments on campus to assist students in the attainment of their personal and academic goals.

A major strength of A&M-Corpus Christi is that students participate in a variety of out-of-class activities. Activities begin with orientation and include a variety of campus organizations and sports clubs that provide a wide range of leadership experiences. Student services are designed to help students attain their desired degrees, learn healthy lifestyles, and attain employment or admission into graduate school.

For additional information, see the Student Engagement and Success (http://studentaffairs.tamucc.edu/) website. The Office of Student Engagement and Success is located in the University Center, Suite 318, (361) 825-2612.

**Career Services**
The Career Services staff helps students explore, select, prepare for, and actively pursue employment and careers. The following services are available:

- Career counseling, computer-assisted assessment, and vocational guidance, which help students explore career options beginning in their first semester. Students may meet with a Career Counselor to explore interests and values, with a view toward choosing a career. For students who are experiencing difficulty choosing a major, this can be a useful process of self-exploration.
- Job search and graduate school advisement.
- Student employment services: assistance in finding on- or off-campus employment.
- Volunteer opportunities listing.
- On-campus recruiting and Job Fairs throughout the year targeted at various majors.
- Electronic resume referral service.
- Career Resource Library.
- Career seminars, workshops and Business Etiquette Dinner.
- Izzy’s Career Closet.
- Videotaped “mock” interviews with trained counselors and professionals.

Career Services is located on the third floor of the University Center in Suite 304. For information, call (361) 825-2628 or visit the website at http://career-services.tamucc.edu.

**Chancellor’s Student Advisory Council (CSAC)**
The purpose of the Chancellor’s Student Advisory Council of the Texas A&M University System is to provide representation for the students to the Chancellor and Texas A&M University System leadership, and to educate and stimulate student involvement in Student Engagement and Success. It is made up of two students from each system institution. Thus, the Chancellor’s Student Advisory Council is the official student voice to the system leadership.
Islander Housing
On-campus housing is available through two communities. Miramar, the Island Campus, offers both residence hall and apartment room styles. Momentum Village is located on the Momentum Campus and offers apartments and townhomes. Living on campus will provide many rewarding experiences to supplement your academic studies and a student may apply financial aid to pay rent. Most importantly, studies have shown that students who reside on campus are more likely to graduate on time and with higher GPAs. For more information, please visit http://housing.tamucc.edu.

Transportation Services
All students and employees ride the Corpus Christi Regional Transportation Authority (RTA) buses free of charge by showing their Sanddollor ID card. Plan a trip anywhere RTA services through Google Maps by selecting the ‘public transit’ method of transportation (train icon). For bus route information, go to www.ccrta.org or call 361.289.2600. For paratransit transportation services, please call 361.289.5881 or go to www.ccrta.org and select Paratransit from the Rider menu. If you have questions or concerns regarding this service, you may contact the RTA at the number above or call the Office of Student Engagement and Success at 361.825.2612.

Student Conduct
Student Conduct & Community Standards Officers strive to protect the University’s educational community and to maintain social discipline through the administration of the Student Code of Conduct. Inappropriate behavior will be investigated and adjudicated in a manner consistent with the institution’s educational and community development goals. Students may view a copy of the Student Code of Conduct at http://judicialaffairs.tamucc.edu.

Student Government Association (SGA)
Established in 1994, the Student Government Association is a student-run, campus wide organization that provides students with a voice in the decision-making process of the University. SGA members are the link between students and the administration of TAMU-CC. SGA strives to improve communication, enhance leadership abilities, hone critical thinking skills, and successfully build relationships with staff, faculty and peers.

The Student Government Association (SGA) is composed of the Executive Branch, Legislative Branch, and the Judicial Branch. The SGA President, Vice President, and Senators are elected in the spring semester for a term of one year. Elections for freshman senators are held in September. The Judicial Branch is appointed by the SGA President and approved by the Student Senate. For more information, call (361) 825-5745, or visit us on the website at: http://sga.tamucc.edu.

Recreational Sports
The Recreational Sports program provides facilities, equipment, and opportunities for participation in a wide variety of sports and recreational activities for the University community. These activities are designed to accommodate all individuals and activities ranging from beginner to expert and sport activities ranging from highly competitive and structured to informal and social. Program areas of interest include intramural sports, fitness and wellness, informal (open play) recreation, sport clubs, aquatics, outdoor adventure, and special events.

The Dr. Jack and Susie Dugan Wellness Center (DWC) includes a gymnasium, free weights, weight machines, cardiovascular exercise equipment (treadmills, elliptical trainers, steppers and bikes), multi-purpose group exercise rooms, and offices for the Recreational Sports Department and Intercollegiate Athletics Department. A 25-yard outdoor season pool is located adjacent to DWC. Multi-purpose playing fields and tennis courts are located on Momentum Campus and available for use.

As the largest student employer on campus, each semester Recreational Sports employs students to work as intramural supervisors and officials, lifeguards, facility assistants and supervisors, group exercise instructors, and personal trainers. Work study and non-work study positions are available. No experience is necessary. Training for all positions is conducted by the Recreational Sports Department. The Recreational Sports Department Office is in the Dugan Wellness Center Room 107. For more information, call (361) 825-2454 or go to http://recsports.tamucc.edu

Student Activities
Dedicated to cultivating students of character through inclusive programming, Student Activities promotes leadership development, campus and community engagement and responsible citizenship that compliments the academic experience and instills Islander pride. Located in the Involvement Center on the 2nd floor of the UC, Student Activities is the place to get involved, with something for everyone! Interested in joining a student organization or Fraternity/Sorority, attending a leadership conference, seeing a movie, participating in a talent show, or serving your community? Stop by and learn about our programs and events or visit https://studentactivities.tamucc.edu (https://studentactivities.tamucc.edu/).

Campus Activities Board (CAB)
The Campus Activities Board (CAB) is a student led organization focused on providing programs and opportunities for students. You can catch a movie on the East Lawn, check out a comedy or talent show and much more! CAB members are dedicated to creating a safe and fun environment for our community to enjoy entertaining events and activities through extensive planning and organization. Additionally, CAB is devoted to providing opportunities for students to learn and develop leadership and social skills through meetings, retreats, socials and other activities. For information and upcoming events call (361) 825-2707 or search for CAB on i-Engage.

Leadership @ TAMU-CC
Leadership @ TAMU-CC offers students the opportunity to improve leadership skills to become more marketable and global leaders. Centered on the belief that leadership is an important part of being the best version of yourself, the program works on developing awareness and personal leadership that can benefit any student regardless of positions held. Leadership @ TAMU-CC offers a variety of programs including Leadership Hour, Islander Leadership Conference, Weekend Leadership, Workshop To-Go and Sigma Alpha Pi, the National Society for Leadership and Success (NSLS) Honor Society. For more information call (361) 825-2707 or visit i-Engage and search for Leadership.

Fraternity & Sorority Life (FSL)
Fraternities and sororities are value-driven student organizations based on brother/sisterhood, leadership, service and academic success. The FSL community strives to enhance the college experience and compliment the mission of the university through engagement, service, scholarship, diversity and leadership. In addition, the community strives to maintain a respectful and unified environment where members and their organizations can positively develop into responsible global
citizens. For more information call (361) 825-2707 or visit http://greeklife.tamucc.edu.

**Student Volunteer Connection (SVC)**

The Student Volunteer Connection is a student organization that aims to get TAMU-CC students actively involved and committed to community service and service-learning. SVC makes community service opportunities more accessible to students by connecting students to off campus opportunities through the GivePulse platform and offering a variety of volunteer programs and events such as Islander Clean, National Hunger & Homelessness Awareness Week, and Green Week. Their Big Event is a one big day of service in which the campus community comes together to express their gratitude and do service for the surrounding Corpus Christi Community. Additionally, SVC coordinates the Alternative Breaks program providing opportunities for students to engage in hands-on service and experiential learning through travel outside of the Corpus Christi community. SVC is a certifying organization for students interested in earning the President’s Volunteer Service Award. For more information call (361) 825-2707, visit http://svc.tamucc.edu, or find events on I-Engage. To explore Give Pulse click on the Service tab in I-Engage.

**University Council of Student Organizations (UCSO)**

The University Council of Student Organizations (UCSO) provides oversite, training and funding for the approximately 100 student groups that exist on campus. There are many types of organizations, including: academic, honor societies, special interest, political, faith-based, cultural, professional, and other interest groups. A current list of recognized student organizations is available at iengage.tamucc.edu (https://tamucc.campuspalslabs.com/engage/). For more information call (361) 825-3239 or visit http://studentactivities.tamucc.edu/UCSO/Index.html.

**Waves of Welcome (WOW)**

Waves of Welcome (WOW) is designed to help students make the Island University feel like home by connecting to other students and student leaders, providing directions and information, and building campus spirit. By attending informational, special events, student organization and community fairs, and other activities, students can learn more about the many student organizations, and campus and community resources available to help them succeed and get the most out of their college experience. The Waves of Welcome schedule is distributed at the beginning of the fall semester. For more information call (361) 825-2707 or visit http://wow.tamucc.edu.

**University Center**

The University Center encourages, supports and commits to providing leadership, development and involvement opportunities for the campus to inspire people to be their best self. We are dedicated to enhancing the student experience by fostering community in an inclusive environment where our campus can engage, learn, and laugh with one another. Our department provides and promotes involvement in quality programs, activities, and services for diverse populations as well as providing well managed facilities which are safe, clean and enjoyable for the campus and surrounding community to use.

The University Center itself serves as the living room of the university, providing dining and lounge seating areas, Breakers game room with video games and billiards, and large flat-screen TV’s for the campus community to enjoy. Several small to large meeting and event spaces are available for use. The UC hosts thousands of events and meetings every year for students. A number of small to large meeting and event spaces are available for reservations. The UC is also one of the largest student employers on campus. For more information, call 825-5202, or visit our website at http://universitycenter.tamucc.edu (https://universitycenter.tamucc.edu/).

**Izzy’s Food Pantry**

Izzy’s Food Pantry strives to provide food assistance for currently enrolled Texas A&M-Corpus Christi students in need. Providing students with a convenient site to obtain food assistance when needed, helps ensure that students who are food insecure can meet their nutritional needs and minimize adverse impacts on their academic progress and success. The Food Pantry operates in partnership with the Coastal Bend Food Bank and is supported by individual donations and grants.

Izzy’s Food Pantry also provides temporary assistance in obtaining meals through Izzy’s Swipes, a short-term assistance program that allocates meals to students in need. For more information call (361) 825-FOOD (3663) or visit http://seas.tamucc.edu/FoodPantry/.

**University Center Programs**

UCP hosts a variety of activities and entertainment to students, faculty, staff and university guests in and throughout the University Center as a way to engage students in a variety of ways. Activities and events include UCP Radio, Patio Jam, Late Night Breakfast, Study Center and other social and fun activities. For more information contact (361) 825-5202 or visit the UCP page on I-Engage.

**Engagement Initiatives**

The Office of Engagement Initiatives is dedicated to creating unique opportunities to help Islanders succeed through programming and educational outreach. The office facilitates alcohol and drug prevention education through I-TEAM and diversity and inclusion programming through ICA.

**Islanders Teaching, Engaging and Motivating (I-TEAM)**

I-TEAM student leaders are dedicated to helping Islanders stay informed about substance use and all dimensions of wellness. I-TEAM’s trained peer educators want each Islander to succeed, this means practicing healthy behaviors and making wise choices. Through exciting events like Party House, Bond-Fire, late night alternative programming, and many more, I-TEAM teaches facts about substance use, models healthy behaviors, and helps Islanders learn to unwind and party safely! Find out more and get in touch at I-TEAM’s I-Engage page or call 361.825.4284.

**Islander Cultural Alliance (ICA)**

A&M-Corpus Christi is a multicultural campus with students, faculty, and staff of diverse backgrounds and interests. It is also a place where differences are respected, and identities are affirmed. The Islander Cultural Alliance (ICA) is a student organization that organizes and promotes multicultural learning programs on campus. Some events include programming for Hispanic Heritage Month, Black History Month, Women’s History Month, LGBTQ+ celebrations, disability/ability awareness, and Asian heritage festivities. The program also offers training to build a campus of Inclusive Islanders. For more information visit ICA’s I-Engage page or call 361.825.3925.

**Disability Services**

Texas A&M University-Corpus Christi is committed to promoting equal opportunities for students with disabilities to access campus facilities, resources, and programs. Support services and reasonable academic adjustments are arranged for students with permanent or temporary

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disabilities through the Disability Services (DS) Office. The DS Office is in
Corpus Christi Hall 116.

Students with permanent or temporary disabilities who qualify for
support under Section 504 of the Rehabilitation Act and the Americans
with Disabilities Act of 1990 must self-identify and register with the Office
of Disability Services. To qualify for services students must

1. be admitted to the University
2. present appropriate and current documentation of their disability
   from a qualified professional and
3. register with the Office of Disability Services each semester.

Advance planning by the student with the Office of Disability Services
is necessary to ensure adequate time to arrange for appropriate
accommodations. It is recommended that requests for services and/or
academic adjustments be made as soon as possible. Requests for
services requiring extensive preparation (e.g., interpreter services,
adaptive and assistive equipment, textbooks in alternate format, etc.)
may need up to 30 days to process. For additional information please call
(361) 825-5816 or visit the Office of Disability Services website at http://
disabilityservices.tamucc.edu.

University Counseling Center (UCC)

The University Counseling Center helps students resolve problems that
can interfere with meeting the demands of college life and offers a variety
of services for students who want to develop skills and resources to
be personally and academically successful. UCC services are funded
through the Student Services fee and are available to all currently enrolled
TAMUCC students at no additional charge. Counseling Center records
are kept strictly confidential and are not released without the student’s
written permission except under certain legal conditions.

Services include brief individual counseling, academic skills counseling,
psycho-educational workshops, limited psychiatry services, alcohol and
other drug treatment and education, and consultation. The Counseling
Center also offers a Relaxation Room which is a quiet, peaceful space for
students to develop and practice relaxation skills that can enhance their
academic productivity and their sense of well-being.

Students who are interested in counseling services, can call or visit
the Counseling Center during walk-in hours for a brief consultation/assessment with the Counselor on Duty (COD). The role of the COD is
to assist students to connect with the most appropriate services and
resources. Common concerns addressed in counseling include stress,
anxiety, depression, relationship issues, substance use, and identity
issues. The Counseling Center is in the Driftwood Building. Walk in hours
are Monday-Friday, 9:00am-11:30am and 1:00-4:00pm. Call (361)
825-2703 or visit the website http://counseling.tamucc.edu for
more information. If a student is in crisis and needs to speak to a
counselor outside of regular business hours, the after-hours crisis line,
(361)825-2703, is available.

University Health Center

The University Health Center, located in Sandpiper Hall, assists students
in maintaining optimal health while attending A&M-Corpus Christi.
Primary emphasis is on preventive health practices, health education, and
the promotion of wellness. Primary health care is provided by registered
nurses, family nurse practitioners, and a physician for the care of acute
illnesses and minor injuries. Chronic health care needs are referred to
local community providers and/or the student’s primary care provider.

The University Health Center provides a variety of health services such as:

• “Ask-A-Nurse-Line” at 361-825-2601
• Women’s Health Clinic - Gynecological services
• Men’s Health Clinic
• Laboratory testing
• Preventive health care and medical resource information - Referrals
  for community resources
• Blood pressure screening and monitoring
• Contraception, sexually transmitted diseases (STD), HIV testing, and
counseling
• Physicals, vision, and hearing screening
• Substance abuse prevention, assessment, and referral
• Immunizations and tuberculin skin testing
• Educational consultations: nutrition, lifestyle, weight management,
  smoking cessation, and substance abuse
• Insurance and claim assistance

Health Insurance

In collaboration with the Texas A&M University System, a private
insurance plan is available at special rates to students attending Texas
A&M University-Corpus Christi. All non-insured students are strongly
encouraged to consider the benefits of enrolling in a health insurance
program. Informational brochures regarding this health plan are available
in the University Health Center or http://tamucc.myahpcare.com.

Intercollegiate Athletics

Texas A&M University-Corpus Christi Athletics has grown into a respected
NCAA Division I program offering 16 men's and women's sports dedicated
to achieving competitive success, providing an exceptional academic
and athletic experience for student-athletes, and prioritizing community
service and engagement. Men's sports include basketball, baseball,
tennis, cross country, and indoor and outdoor track and field. Women's
sports include basketball, tennis, golf, softball, volleyball, beach volleyball,
soccer, cross country, and indoor and outdoor track and field. Athletics
teams at A&M-Corpus Christi are known as the "Islanders," and the official
school colors are blue, green, and silver.

Texas A&M University-Corpus Christi Athletics’ mission is to bring
distinction to the university by winning conference championships and
competing successfully on the national stage, contribute to a vibrant
campus culture, and develop successful student-athlete graduates who
will excel as leaders in their communities.

Having recently completed our 20th year of intercollegiate athletic
competition and with a renewed commitment to success by university
leadership, TAMU-CC is poised to position itself as a leader among the
13 institutions of the highly competitive Division I Southland Conference.
Each year, the Southland Conference tournament champion in each
sport receives an automatic bid to the NCAA Division I Championship
tournament.

For more information on Islanders Athletics and to join the excitement,
please call 361-825-3415 or visit www.goislanders.com (http://
www.goislanders.com).
Campus Security Report
Click here (https://police.tamucc.edu/cleryact/campusSecurityAct.html) to view the university crime log.

Office of International Education
International Student and Scholar Services
The Office of International Education (OIE) provides immigration compliance expertise and support programs to TAMU-CC international students, scholars, faculty, staff, as well as departments and schools/colleges. OIE offers a variety of services and programs, including:

- Immigration advising and services that ensure students, scholars, and institutional compliance with federal rules and regulations and guides them through all the requirements for foreign nationals studying and working in the U.S., such as enrollment requirements, travel, status extension, OPT, CPT, dependent employment authorization, change of status, reinstatement, maintaining status, to name a few.
- Assistance for TAMU-CC departments and schools/colleges in their efforts to hire international students, scholars, and faculty.
- Intercultural and social events and activities that welcome and help international students and scholars transition and adjust to life in the United States and Texas A&M University-Corpus Christi. These include the international student and scholar orientation, workshops, International Education Week, Parade of Nations, field trips, photo contests, coffee/tea hours, mixers, fashion shows, Eyes on the World, open house, as well as many others.
- For more information, contact the Office of International Education at (361)-825-3346 or Email at international@tamucc.edu; visit the office in UC 226, or visit the website at http://oie.tamucc.edu/.

Study Abroad Services
The Office of International Education (OIE) is committed to providing access to international education opportunities for all students and dedicated to creating an inclusive community and establishing collaborative relationships across cultures. OIE promotes international learning environments that embrace diversity through the following study abroad programs:

Faculty-led Programs
These programs are credit-bearing, international study-travel courses. They are led by one or more University professors and usually last between one to 15 weeks. Students travel as a group to one or more international locations, where there is a mix of lectures, exercises, assignments, excursions, cultural encounters, and free time. There are certain programs that are open only to students in a particular college, while others are open to all A&M System students.

Reciprocal Exchange Programs
A reciprocal exchange involves an agreement between two universities to exchange students. Tuition and fees are paid at the home university while studying at the host university. When a student participates in a reciprocal exchange, the student remains enrolled at the home university, allowing students to receive credit. Proficiency in the language of the host country is required; however, some programs are available in English-speaking countries.

Independent Programs
Students have the option to apply directly to an international university, to an institute or organization, or to a sponsoring U.S. University. Graduate students may conduct research abroad coordinated by a TAMU-CC faculty member.

Third-Party Study Abroad Programs
Students can study abroad through the third-party study abroad providers. These providers work together with the OIE to take care of the whole study abroad process from the beginning of the application to transferring the credits back to the home institution. Most of the study abroad providers have onsite staff to advise and support students.

Exchange Affiliate Programs
Students participate in the academic programs in international institutions and pay fees and tuition directly to the host international universities or colleges, where they receive grades and credits. All these credits and grades can be transferred back to TAMU-CC to fulfill the students' degree requirements.

Funding for Study Abroad Programs
Students who receive federal financial aid for on-campus study may use their aid for study abroad. Financial Aid counselors work with each individual student to assess their eligibility and give students accurate information. The University also offers the International Education Scholarship to all students meeting the general requirements. There are prestigious national grants and scholarships specifically for study abroad, including Boren Awards for International Study, Benjamin A. Gilman International Scholarship, Gilman International Scholarship, and Fulbright Scholarship.

For more information and applications for Study Abroad programs, please visit the OIE website at international@tamucc.edu or study.abroad@tamucc.edu or call (361)-825-3346.

Other Offices
Alumni Relations Office
The Texas A&M University-Corpus Christi National Alumni Association exists to strengthen and promote the interests and welfare of A&M Corpus Christi through the lifelong commitment and support of its alumni and friends. Through a variety of programs, events, services and communications, the Alumni Association promotes positive interaction between the University and its graduates.

The Alumni Association considers all graduates from this institution during its history as members. This includes graduates from the University of Corpus Christi, Texas A&M University at Corpus Christi, Corpus Christi State University and Texas A&M University-Corpus Christi. Active membership is granted to individuals who donate to the University’s Islander Fund Campaign. Gifts to the Annual Fund enhance the current academic programs on campus.

Alumni Association members receive several benefits, including membership in Islander chapters, subscription to the Islander magazine, participation in Alumni Association affinity programs, special discounts and much more.

All members of the Alumni Association are encouraged to submit updated information about their personal and professional lives as well as address and phone number corrections. Updated information allows the Alumni Association to keep in contact with its members.
The Alumni Association assists the Student Alumni Association, a student group dedicated to building strong future alumni through a variety of special events, programming, and class gifts. In addition to special events throughout the year, the Student Alumni Association raises funds for their scholarship endowment.

For additional information about the Alumni Association or alumni matters, contact the Woo Sung Lee Alumni Welcome Center at (361) 825-5787, located at 6129 Ennis Joslin Road, or go to the Alumni Association's Web site at www.IslanderAlumni.org (http://www.IslanderAlumni.org).

Community Outreach
The Office of Community Outreach works to develop and support a community of practice within Texas A&M University-Corpus Christi that’s focused on being impactful by leaving a legacy in the community. We know that can happen through research, teaching, service and beyond and want to support and empower people to do that. For more information, see http://outreach.tamucc.edu.

Research Resources

Research and Creative Activity Resources
Listed below are various research and creative activity units at Texas A&M University-Corpus Christi, some of which provide opportunities for graduate student training.

Antonio E. Garcia Arts & Education Center
The Garcia Center is located in a primarily low-income Hispanic neighborhood in the heart of Corpus Christi’s West Side. It was established in 1993 by the City of Corpus Christi as a Center for Hispanic Arts and became affiliated with The South Texas Institute for the Arts in 1997. In 2004, the College of Education and Human Development of Texas A&M University-Corpus Christi assumed the management and direction of the city-owned facility and expanded its mission. The mission of the Garcia Center is to provide students and their families opportunities for constructive engagement in activities that enhance their education and promote lifelong learning. With the help of local, state, and federal funding coupled with the efforts of Texas A&M-Corpus Christi faculty, staff, and students, the Garcia Center provides a safe environment for children to participate in a myriad of after-school and summer programs. Program focus areas include academic achievement, health and wellness, art, literacy, and counseling.

Blanche Davis Moore Early Childhood Development Center
The Early Childhood Development Center features a school for young children on the University campus. It also serves as a human resource laboratory where student learning can be observed, modeled, and investigated. The research and training mission of the Center is founded on providing comprehensive educational and family support services to residents of the Coastal Bend Region of South Texas. The research agenda focuses on observation and investigation of basic processes of human development, student learning, and effective teaching in a context of a multicultural, multilingual, and mixed-age environment.

Bioacoustics Laboratory
Organized under the Texas Engineering Experiment Station in 1987, the Bioacoustics Laboratory was transferred to Texas A&M University-Corpus Christi in 1997. The Lab's mission is the development and dissemination of knowledge in bioacoustics and related fields. In support of this mission, the Lab carries on an active research program and supports undergraduate, graduate, and continuing education courses both on and off the Texas A&M University-Corpus Christi campus. Additionally, the Lab maintains a growing and accessible systematic collection of digital audio recordings of natural and anthropogenic sounds.

Office for Business and Economic Research (OBER)
The Office for Business and Economic Research (OBER) supports the mission of the College of Business by promoting faculty research and service to the community. OBER is the primary vehicle for providing service to the business community. Faculty members may elect to run their consulting projects through OBER. OBER is a self-sufficient unit, which requires charging a fee for its services.

Center for Coastal Studies
The Center for Coastal Studies, established in 1984, is an interdisciplinary marine science research unit of the College of Science and Engineering. The Center focuses on basic and applied research, ecological monitoring, public education outreach, and graduate level education/research programs, concentrating on the Texas coast but also extending throughout the Gulf of Mexico and Caribbean Sea. The Center has funding from several state and federal agencies that support graduate students. Work conducted by students while supported at the Center often serves as the research underpinning master's theses in biology or environmental science. Scientists at the Center are regularly recruited to conduct environmental and conservation-related research on the gulf coast of Texas. Their endeavors contribute significantly to the knowledge and understanding of coastal and marine environments.

Center for Educational Development, Evaluation, and Research (CEDER)
The Center for Educational Development, Evaluation, and Research (CEDER), which was initiated in 2001, facilitates and coordinates grants, research, publications, symposia, and new initiatives for the College of Education and Human Development at Texas A&M University-Corpus Christi. CEDER also serves as a center to facilitate evaluation and research for other educational agencies in Texas. The annual conference, sponsored by CEDER, provides an opportunity for graduate students and faculty to present their research and their new program initiatives.

Office for Information Assurance, Statistics, and Quality Control (OIASQC)
The Office for Information Assurance, Statistics, and Quality Control (OIASQC) leverages the skills of university experts working together with community leaders to meet the increasing demands for secured information environments and improved quality of education, government, health care, and business. The mission of OIASQC is to become the primary South Texas and Gulf of Mexico resource of information assurance, modeling, statistical and quality improvement services, and software engineering for the education, government, health care, and private sectors.

Center for Virtual Medical Education
Established in 2007, the Center for Virtual Medical Education (CVME) provides cross-disciplinary expertise and resources to educational,
governmental, and business entities in the development of three-dimensional virtual learning platforms that are rigorously researched, developed, and tested extensively for reliability and validity. The center's signature project is Pulse!! The Virtual Clinical Learning Lab, a virtual learning platform that replicates true-to-life physiological and pathophysiological states in three-dimensional virtual space. The CVME operates as a pool of training resources for military medical training, professional certification and credentialing, professional development, and graduate medical education.

**Center for Water Supply Studies**

The Center for Water Supply Studies was organized in 1991 to initiate cross-disciplinary research on water resources and other water-related issues in South Texas. Housed within the College of Science and Engineering, the Center focuses on research and education to develop professionals and leaders who can recognize and address water issues. Through active new research, the Center provides information needed to evaluate alternative strategies for local and regional management of surface and subsurface water resources. The Center provides science students with the opportunity to pursue research in the broad areas of water resources. It also provides data on issues related to water supply to regional governmental entities.

**Coastal Bend Business Innovation Center (CBBIC)**

Created in 2009, the mission of the CBBIC is to produce successful firms that will leave the program financially viable and freestanding. Among the goals are to enable and accelerate the growth of emerging innovative companies for the purpose of creating jobs, revitalizing neighborhoods, strengthening local and statewide economies, and promoting entrepreneurial economic development endeavors such as commercializing new technologies. CBBIC also provides executive level education in the greater South Texas Coastal Bend area, offering professional continuing education, seminars and 26 workshops.

The overriding philosophy is that the university is an integral part of a thriving community and that those who sustain us must also be sustained by a robust university contributing back into the economic community system in which we thrive. We provide clients access to appropriate rental space and flexible leases, shared basic business services and equipment, technology support services, professional PhD level consulting, student internship programs, coursework modeling and interaction, educational classes, and assistance in obtaining the financing necessary for company growth.

**Conrad Blucher Institute for Surveying and Science**

The Conrad Blucher Institute for Surveying and Science serves as a research center enhancing surveying and geospatial engineering science research and application of research knowledge, with primary emphasis on Texas and the Gulf of Mexico. The Division of Nearshore Research (DNR), a scientific and technical division under the Blucher umbrella, assists in the preservation and enhancement of the Texas coastal resources and ecosystems. The major component of DNR is the Texas Coastal Ocean Observation Network (TCOON), which monitors over 40 scientific data collection stations along the entire Texas coast with real-time data on tides, winds, currents, temperature, and barometric pressure. The Texas Spatial Reference Center, also a division of the Institute, works with the National Ocean and Atmospheric Administrations (NOAA) and the National Geodetic Survey (NGS) to provide accurate height information by integrating Global Positioning System (GPS) technology with existing survey techniques.

An academic member of the International Federation of Surveyors (FIS), the Institute is expanding its cooperation with international organizations. The Institute has a national reputation for developing innovative geospatial engineering science research and serves as a focused resource area for geospatial datasets relevant to the coastal environment. Researchers include scientists, professional surveyors and engineers who develop and apply geospatial technology solutions. University students are employed in research projects. The Blucher Institute was endowed by Conrad M. Blucher, a lifetime resident of Corpus Christi and Nueces County Surveyor.

**Harte Research Institute for Gulf of Mexico Studies**

The mission of the Harte Research Institute for Gulf of Mexico Studies is to support and encourage the long-term sustainable use and conservation of the Gulf of Mexico. The Harte Research Institute began operating in 2002 and occupied a new approximately 56,736 sq.ft. laboratory facility in 2005. The Institute's research focus areas include coastal and marine policy and law, coastal and marine geospatial science, ecosystem studies and modeling, marine biodiversity/conservation science, socioeconomics, and ocean and human health. The Institute is a leading marine science and policy research institute on the Gulf of Mexico. The Institute was created with a $46 million endowment from Edward H. Harte, longtime resident of Corpus Christi and former owner/publisher of the Corpus Christi Caller-Times.

**National Spill Control School**

The National Spill Control School, established in 1977 and housed within the College of Science and Engineering, promotes education on environmental issues. The primary focus of its programs is in presenting continuing education short courses on-campus or on-site for personnel involved in spill prevention and the control of oil, hazardous materials, and hazardous waste. Other areas of interest include allied safety concerns and improving knowledge in these fields through research and targeted education programs.

**Social Science Research Center**

The Social Science Research Center (SSRC) at Texas A&M University-Corpus Christi provides administrative support for research conducted by the faculty of the College of Liberal Arts. Through the SSRC, faculty engage in survey research, program evaluation, secondary research (data collection), and other forms of research, consulting, and professional training. Recent and current research projects concern crime and delinquency, educational attainment, economic indicators, substance abuse, citizen satisfaction with government services, transportation issues, social service networks, business and workforce indicators, youth issues, and program evaluations.

**The Art Museum of South Texas**

The Art Museum of South Texas is located at 1902 North Shoreline. The museum is housed in two connected architectural gems—the earlier one designed by Philip Johnson and the more recent structure designed by Ricardo Legorreta. The museum has been affiliated with the University since 1995. The museum is available for graduate students to use as a research tool through exhibitions of visiting works of art as well as of works of art from the permanent collection. Texas A & M
University-Corpus Christi students have the opportunity to intern with one of the curators at the museum in order to advance their knowledge of art history. Graduate students also have opportunities to teach and apply practical career experiences through programs at the museum. In addition, the Art Museum sponsors visiting artists, lectures, films, symposia, and other events that enrich Texas A&M-Corpus Christi students’ knowledge of their field of endeavor.

University Galleries

The University has two art galleries. The Weil Gallery is located in the Center for the Arts on Ward Island and includes exhibitions of leading contemporary artists among its varied offerings. It was founded in 1979. The Islander Art Gallery is the Art Department’s off-campus exhibition venue. Founded in 2005, it is located at the corner of Staples Street and Weber Road in the Hamlin Shopping Center. This spacious facility offers the university and community access to the work of nationally recognized artists as well as departmental faculty and alumni. All graduating MA and MFA thesis exhibitions are presented in this facility. The graduate painting studio is housed at the rear of the Islander Gallery. This state-of-the-art facility provides graduate painting students with an inspirational and safe painting environment.

Graduate Degree

Nature and Purpose of Graduate Study

Graduate work consists of advanced study in focused or specialized programs. There are generally two components of graduate study: coursework and independent study, the latter often leading to a report, thesis, dissertation, or creative presentation. In some areas, internships, field studies, and other professional experiences may also be an integral part of the program. The proportion of each type of study varies according to the previous training of the student and the nature of the major area.

The objective of graduate study is to develop intellectual depth and to provide the specialized training necessary to a career in teaching, in research, or in the professions. Emphasis is placed on the knowledge, methods, and skills needed for scholarly teaching, original research and problem solving, intellectual leadership, creative expression, and other modes of achievement in the student’s discipline.

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<td>College of Science and Engineering</td>
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<tr>
<td>Environmental Science, BS</td>
<td>Bachelor Degree Programs</td>
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<td>Environmental Science, BS - Grades 4-8 Science Education Concentration</td>
<td>Bachelor Degree Programs</td>
<td>College of Science and Engineering</td>
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<tr>
<td>Environmental Science, Minor</td>
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<td>College of Science and Engineering</td>
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<tr>
<td>Environmental Science, MS (p. 227)</td>
<td>Master Degree Programs</td>
<td>College of Science and Engineering</td>
</tr>
<tr>
<td>Fast Track Biology, BS to Biology, MS</td>
<td>Fast Track Programs</td>
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<td>Fast Track Computer Science, BS and Computer Science, MS</td>
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<td>Fast Track Environmental Science, BS</td>
<td>Fast Track Programs</td>
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<tr>
<td>Fast Track Geology, BS and Environmental Science, MS</td>
<td>Fast Track Programs</td>
<td>College of Science and Engineering</td>
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<tr>
<td>Program</td>
<td>Level</td>
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<td>Fast Track Mathematics, BS and Mathematics, MS</td>
<td>Fast Track Programs</td>
<td>College of Science and Engineering</td>
</tr>
<tr>
<td>Fisheries and Mariculture, MS</td>
<td>Master Degree Programs</td>
<td>College of Science and Engineering</td>
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<td>Geographic Information Science, BS</td>
<td>Bachelor Degree Programs</td>
<td>College of Science and Engineering</td>
</tr>
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<td>Geomatics, Post-Baccalaureate Certificate</td>
<td>Certificate Programs</td>
<td>College of Science and Engineering</td>
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<td>Geography, Minor</td>
<td>Minors</td>
<td>College of Science and Engineering</td>
</tr>
<tr>
<td>Geology, BS</td>
<td>Bachelor Degree Programs</td>
<td>College of Science and Engineering</td>
</tr>
<tr>
<td>Geology, Minor</td>
<td>Minors</td>
<td>College of Science and Engineering</td>
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<td>Geosciences, Post-Baccalaureate Certificate</td>
<td>Certificate Programs</td>
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<td>Geospatial Computer Science, PhD</td>
<td>Doctoral Degree Programs</td>
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<td>Geospatial Systems Engineering, MS</td>
<td>Master Degree Programs</td>
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<td>Industrial Engineering, BS</td>
<td>Bachelor Degree Programs</td>
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<td>Marine Biology, MS</td>
<td>Master Degree Programs</td>
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<td>Marine Biology, PhD</td>
<td>Doctoral Degree Programs</td>
<td>College of Science and Engineering</td>
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<td>Mathematics, BS</td>
<td>Bachelor Degree Programs</td>
<td>College of Science and Engineering</td>
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<td>Mathematics, BS - Grades 7-12 Mathematics Education Concentration</td>
<td>Bachelor Degree Programs</td>
<td>College of Science and Engineering</td>
</tr>
<tr>
<td>Mathematics, Grades 7-12, Teacher Certification Without a Mathematics Major</td>
<td>Certificate Programs</td>
<td>College of Science and Engineering</td>
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<td>Mathematics, MS</td>
<td>Master Degree Programs</td>
<td>College of Science and Engineering</td>
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Mechanical Engineering Technology, BS (http://catalog.tamucc.edu/undergraduate/science-engineering/bachelors-encs/mechanical-engineering-technology-bs/) Bachelor Degree Programs College of Science and Engineering

Mechanical Engineering Technology, Minor (http://catalog.tamucc.edu/undergraduate/science-engineering/minors-encs/mechanical-engineering-technology-minor/) Minors College of Science and Engineering

Mechanical Engineering, BS (http://catalog.tamucc.edu/undergraduate/science-engineering/bachelors-encs/mechanical-engineering-bs/) Bachelor Degree Programs College of Science and Engineering

Physics, BS (http://catalog.tamucc.edu/undergraduate/science-engineering/bachelors/physics-bs/) Bachelor Degree Programs College of Science and Engineering

Physics, Minor (http://catalog.tamucc.edu/undergraduate/science-engineering/minors/physics-minor/) Minors College of Science and Engineering


College of Business

The accounting and business undergraduate and master’s degree programs are accredited by the AACSB International – The Association to Advance Collegiate Schools of Business. The Bachelor of Business Administration degree program is offered on TAMU-CC’s main Island Campus, online and at the Texas A&M University System RELLIS Campus in Bryan, Texas. The Master of Business Administration program is offered as an evening program on the Island Campus and online. The Master of Accountancy is offered online only.

Mission

The College of Business supports the mission of the University by focusing on higher educational needs of business students in the region. Quality programs are designed to help students advance their education in business, further their careers, pursue advanced studies, and become more productive citizens. Undergraduate programs offer selected specializations built on a foundation of general education and a broad business core. The Master of Business Administration program provides more advanced general management education with selected concentrations. The college extends access and flexibility through online delivery. The Master of Accountancy program offers advanced accounting studies. The College promotes student learning, engagement, and ethical behavior.

Student learning is the highest priority of the College. To that end, the College emphasizes intellectual contributions of applied scholarship and instructional development. The College supports faculty development, community service, and involvement in professional organizations resulting in service to key stakeholders. The College supports regional economic development and solicits input from its primary stakeholders through advisory councils.

College Academic Policies

Nondegree-Seeking Students

Students who hold a bachelor’s degree from a regionally accredited institution and who wish to pursue further study at the undergraduate level or to obtain a second bachelor’s degree should obtain permission to take courses from the Director of Master’s Programs. This helps ensure that students accomplish their objectives.

Transient Students

A “transient” classification may be granted to a student in good standing in any regionally accredited graduate program who desires to enroll in the College of Business for any one semester or summer session. Students will be required to present a letter of graduate standing and transcripts to document completion of prerequisites. A special form is available to facilitate enrollment. No more than 6 semester hours may be earned in this category, and course prerequisites must be met.

Graduating Seniors

Texas A&M University-Corpus Christi students in the last semester of an undergraduate degree, with cumulative GPAs of 3.0 or better, and acceptable GMAT or GRE scores on file, may enroll with permission from the Dean of the College of Business for a load not exceeding the maximum hours permitted for graduate students. Graduate courses cannot be used to satisfy undergraduate degree requirements.
Residency Requirement
A minimum of 21 semester hours for the graduate degree must be completed at the University.

Courses Transferred from Other Universities
A student may transfer up to nine semester hours of graduate credit from another university with the permission of the Director of Master's Programs, if it is determined appropriate to the degree being sought. Graduate coursework transferred from other regionally accredited institutions of higher education prior to acceptance cannot be older than seven years at the time the master's degree is awarded. Credit to be earned at other institutions after acceptance in the graduate program must be taken at an AACSB accredited program and approved in advance. Approval is granted at the discretion of the Director of Master's Programs, and only under unusual circumstances such as job transfers or other extenuating circumstances.

Second Master’s Degree
A student who holds a master’s degree may take a second degree only if the second degree is in a distinctly different field of study.

A student who already holds a master’s degree and wishes to receive a master’s degree of a different type must complete all college and university requirements for the degree. Upon recommendation of the Director of Master's Programs, students may apply up to six semester hours of related graduate credit from an earlier degree earned at this university to a second master's degree at this university. Such credit may be applied to a second master's degree only if it falls within the recency of credit policy and is approved by the program director. Credit from a graduate degree earned at another institution will not be applied to a second master's degree at Texas A&M University-Corpus Christi.

Course Approvals
Students are not permitted to take undergraduate courses in lieu of graduate core courses without the written permission of the Director of Master's Programs. Prerequisites are strictly enforced.

Courses taken without the approval of the Director of Master's Programs are taken at the student's own risk. Students are responsible for knowing and fulfilling all general and specific requirements relating to the completion of their degree programs. Answers to specific questions about the programs may be obtained from the Director of Master's Programs.

Program Continuation
Students who fail to register for and complete at least one course per 12-month academic year will be dropped automatically from the program and must reapply for admittance to continue in the program. In addition, students who do not wish to register in any given semester are requested to inform within 30 days of the beginning of the semester, in writing, the Director of Master's Programs of their intentions.

Course Load, Grade Point Requirement, and Scholastic Probation and Suspension
Maximum course load requirements are the same as general University requirements, as detailed in “Academic and Degree Requirements (p. 19)” in the “Graduate Programs” section of the catalog.

A graduate student, regardless of enrollment classification, must maintain a minimum graduate grade point average (GPA) of 3.0 on a four-point scale. The graduate GPA is computed on all graduate course work taken at this University in the student's present program of study.

If, at the end of the semester or term, the student’s grade point average (as described in the previous paragraph) falls below 3.0, the student will be placed on scholastic probation until the required grade point average is restored. If, while on scholastic probation, a student's grade point average for any term or semester falls below 3.0, the student will be on enforced withdrawal.

No grade of less than “C” and no more than two “C’s” earned in the College of Business masters’ programs will be accepted as credit.

After a one-year period, a student who has been on enforced withdrawal must reapply and meet the current requirements for degree seeking students. The student must also petition the Curricula Management Committee to seek readmission. The College Dean must approve the Curricula Management Committee recommendation for readmission. Enforced withdrawal is reflected on the student’s academic record.

Application for Graduation
(see graduation in “General Academic Policies and Regulations” (p. 11))

Students must apply for graduation through the Office of Admissions and Records by the deadline indicated in the Class Schedule in order to receive their degrees.

Academic Honesty and Integrity
The College of Business endorses and expects the highest level of honesty and integrity from business students.

The College of Business policies are the same as general University policies on academic honesty and integrity, which are described in the “General Academic Policies and Regulations (p. 11)” section of the catalog.

Student Appeals
Appeals for exceptions to policies or academic standards of the College of Business may be made in writing to the College of Business Curricula Management Committee in care of the Director of Master's Programs, College of Business, Texas A&M University-Corpus Christi, 6300 Ocean Drive, Corpus Christi, Texas, 78412. The College of Business Curricula Management Committee will review written appeals and subsequently make recommendations to the Dean of the College of Business.

Programs

- Master Degree Programs (p. 50)
- Accountancy, MAcc (p. 50)
- Master of Business Administration (MBA) (p. 54)

Master Degree Programs

- Accountancy, MAcc (p. 50)
- Master of Business Administration (MBA) (p. 54)

Accountancy, MAcc

Program Description
The Master of Accountancy (MAcc) degree is designed to provide an opportunity for graduate study in accounting. The MAcc is intended to prepare professional accountants to fill high-level positions in
accounting firms and business enterprises. The length of the program is approximately one year of full-time study for the typical BBA graduate with a major in accounting.

**On-Line Course Delivery**

All required courses for the MAcc degree are entirely online. ACCT 5345 Ethics for Texas CPA Candidates and Business Executives (3 sch) is available on campus for students planning to take the CPA exam in Texas. Students planning to sit for the CPA exam in Texas should be aware of the following rule:

Pursuant to Texas Administrative Code Rule 511.57(c), the Texas State Board of Public Accountancy (TSBPA) will accept no fewer than 30 semester credit hours of accounting courses from the courses listed in subsection (e)(1) - (13) of Rule 511.57. The courses must meet the TSBPA’s standards by containing sufficient business knowledge and application to be useful to candidates taking the Uniform CPA Exam. A TSBPA-recognized institution of higher education must have accepted the courses for purposes of obtaining a baccalaureate degree or its equivalent, and they must be shown on an official transcript. At least 15 of these accounting hours must result from physical attendance at classes meeting regularly on the campus of the transcript issuing institution.

Individuals with undergraduate degrees in areas other than accounting should consult with the Director of Master’s Programs to determine specific course requirements for their programs.

**Student Learning Goals and Objectives**

- **G1:** To be effective communicators
  - O1. The ability to integrate data and analysis effectively in written form (proper grammar, spelling, syntax, and construction).
  - O2. The ability to present data and analysis effectively in public presentations with professional and technical presentation skills.

- **G2:** To be competent in business practices
  - O1. Advanced knowledge of accounting content areas according to their chosen area of concentration.
  - O2. The ability to execute research related to accounting topics through the effective use of technology to gather data from a variety of sources, analyze data, and disseminate information to the appropriate audiences.

- **G3:** To be good decision makers
  - O1. The ability to research authoritative literature for complex accounting-related problems in an effective and efficient manner.
  - O2. The ability to synthesize relevant data and information in order to solve problems and arrive at appropriate decisions.

- **G4:** To be good citizens
  - O1. The ability to apply concepts of ethics to business practices and assess the impacts of their decisions.
  - O2. The ability to exercise professional judgment and understand the implications of actions.

**For Additional Information**

**Website:**
http://www.cob.tamucc.edu

**Campus address:**
O'Connor Building, Room 239

**Phone:** (361) 825-2655

**Mailing address:**
Director of Master’s Programs, College of Business
Texas A&M University-Corpus Christi
6300 Ocean Dr. Unit 5808
Corpus Christi, TX 78412-5808

**Admission Requirements**

Applicants must comply with University procedures and meet University standards for admission. Applicants must submit to the Office of Recruitment and Admissions a Graduate Admission Application. Also required are two letters of recommendation from persons able to evaluate the applicant’s professional or academic performance, a resume or curriculum vitae, and other information that may have impacted the applicant’s decision to pursue graduate study or deemed important to individual or career goals. Applicants are required to submit Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE) scores prior to admission. Generally, GMAT and GRE scores will not be accepted if over five years old. The GMAT or GRE is not required of those who earned a graduate degree from a regionally accredited university. Students with a 3.0 GPA or higher in the last 60 hours of a BBA in accounting or finance and a grade of at least B in college algebra or higher level math course may waive the requirement to take the GMAT or GRE.

Admission decisions are made on the basis of undergraduate performance, GMAT or GRE scores, experience, and other indicators of the ability to pursue graduate study successfully. To be accepted in the graduate program, in addition to other requirements, applicants must be in good standing at the college or university they previously attended. Official notification of the admission decision is issued by the Office of the Dean of the College of Business and is sent directly to the applicant. The College of Business does not have “conditional” or “non-degree seeking” graduate admission classifications. Normally, no credit will be applied toward a master’s degree for graduate classes taken prior to acceptance into a graduate degree program in business.

**Program Requirements**

**Mathematics and Computer Proficiency Requirements**

All MAcc students must meet the mathematics and computer proficiency requirements or take additional approved courses to satisfy these requirements.

**Mathematics Preparation Requirement.** Entering students must present satisfactory credits for at least six semester hours of college-level mathematics excluding remedial mathematics and first-level statistics courses. This requirement will be satisfied with college algebra and an introductory calculus course.

**Computer Proficiency Requirement.** Entering students must have completed MISY 2305, or the equivalent, with a grade of “C” or better.

**Students with Non-accounting Majors or Nonbusiness Degrees**

Prior to taking advanced courses, individuals with a business degree without an accounting major will be required to complete the undergraduate accounting foundation courses. Individuals with a nonbusiness degree will be required to take the business core series in addition to the following accounting foundation courses.
Pathway to the Master of Accountancy

Students who have been admitted into Master of Accountancy program and have 15 or less student credit hours to complete the Bachelor of Business Administration degree in Accounting may enroll in graduate accounting coursework with the approval of the Director of Masters Programs.

The 150-Hour Requirement for CPA Examination

The Texas State Board of Public Accountancy (TSBPA) has set the minimum educational requirements for taking the CPA examination at 150 hours. At least three hours of ethics is required. The course must be among those on the TSPBA approved list available on its website. Students aspiring to an accounting career should give serious consideration to pursuing the Master of Accountancy degree to enhance their potential for a successful career.

Accounting students should be aware that requirements to sit for the CPA examination in Texas may change at any time. CPA requirements are determined by the TSBPA. Students should visit the TSBPA website at https://www.tsbpa.texas.gov frequently and check with their advisor on a regular basis to ensure that the courses they are taking will qualify them to sit for the CPA exam.

TSBPA Education Requirements:

1. Hold a baccalaureate or graduate degree conferred by a TSBPA recognized institution of higher education, and
2. Complete at least 150 semester hours in TSBPA board recognized courses, and
3. Complete at least 30 semester hours in qualifying upper division accounting courses recognized by TSBPA, and
4. Complete at least 24 semester credit hours of qualifying business subjects recognized by TSBPA, and
5. Satisfy the following additional education requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 4345</td>
<td>Ethics for Texas CPA Candidates and Business Executives ¹</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5345</td>
<td>Ethics for Texas CPA Candidates and Business Executives ¹</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Note: ACCT 4345 Ethics for Texas CPA Candidates and Business Executives (3 sch) and ACCT 5345 Ethics for Texas CPA Candidates and Business Executives (3 sch) do not count toward the 30 semester hours in upper level accounting requirement and a student may not take both ACCT 4345 Ethics for Texas CPA Candidates and Business Executives (3 sch) and ACCT 5345 Ethics for Texas CPA Candidates and Business Executives (3 sch).

See the College of Business section of the Graduate Catalog for details on the MAcc and the MBA programs. (An advanced degree is not currently required to meet the 150-hour standard for becoming a candidate for the CPA examination.) See the Texas State Board of Public Accountancy website for more information: https://www.tsbpa.texas.gov.

Students should also be aware that pursuant to TAC Rule 511.57(c), the Board will accept no fewer than 30 semester credit hours of accounting courses from the courses listed in subsection (e)(1) - (13) of this section. The courses must meet the Board’s standards by containing sufficient business knowledge and application to be useful to candidates taking the UCPAE. A Board-recognized institution of higher education must have accepted the courses for purposes of obtaining a baccalaureate degree or its equivalent, and they must be shown on an official transcript. At least 15 of these hours must result from physical attendance at classes meeting regularly on the campus of the transcript-issuing institution.

The Director of Master’s Programs or the Department Chair in Accounting should be consulted for specific requirements.

Accounting Foundation Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 2301</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2302</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3311</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3312</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3314</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3321</td>
<td>Federal Income Tax I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4311</td>
<td>Auditing Principles and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4355</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 3310</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 27

These courses can be found in the “Courses A-Z” section in the catalog.

Core Courses

The following courses form the core knowledge in business for students with nonbusiness undergraduate degrees. Core courses cannot be taken for advanced course credit. Students must be admitted into the MAcc program before enrolling in graduate-level core courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 5311</td>
<td>Foundations in Economics</td>
<td>3</td>
</tr>
<tr>
<td>FINA 5311</td>
<td>Financial Management Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ORMS 5310</td>
<td>Statistical and Decision Analysis</td>
<td>3</td>
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</table>

Total Hours: 9

* Online offering
Master of Accountancy Advanced Courses

Thirty credits of advanced graduate courses, including at least 24 hours of accounting courses above the 5315 level, will be required of all students.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 5371</td>
<td>Professional Accounting Research 1,*</td>
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</tr>
<tr>
<td>ACCT 5391</td>
<td>Integrative Seminar in Accounting</td>
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<tr>
<td><strong>Advanced Accounting</strong></td>
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<tr>
<td>Select three of the following:</td>
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</tr>
<tr>
<td>ACCT 5341</td>
<td>Advanced Auditing and Assurance Services 2,*</td>
<td>9</td>
</tr>
<tr>
<td>ACCT 5351</td>
<td>Strategic Cost Management</td>
<td>*</td>
</tr>
<tr>
<td>ACCT 5355</td>
<td>Information Systems in Accounting</td>
<td>*</td>
</tr>
<tr>
<td>ACCT 5381</td>
<td>Accounting Theory 2,*</td>
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<tr>
<td><strong>Graduate Accounting Electives</strong></td>
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<tr>
<td>Select 9 hours from the following:</td>
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</tr>
<tr>
<td>ACCT 5317</td>
<td>Oil, Gas and Energy Accounting</td>
<td>*</td>
</tr>
<tr>
<td>ACCT 5332</td>
<td>Controllership</td>
<td></td>
</tr>
<tr>
<td>ACCT 5337</td>
<td>Taxes and Business Strategy</td>
<td>*</td>
</tr>
<tr>
<td>ACCT 5340</td>
<td>Forensic Accounting</td>
<td>*</td>
</tr>
<tr>
<td>ACCT 5370</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>ACCT 5396</td>
<td>Directed Individual Research or Readings</td>
<td></td>
</tr>
<tr>
<td>BLAW 5345</td>
<td>Business Ethics 1,*</td>
<td></td>
</tr>
<tr>
<td>ACCT 5345</td>
<td>Ethics for Texas CPA Candidates and Business Executives 4</td>
<td></td>
</tr>
<tr>
<td><strong>Graduate Accounting or Business Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 6 hours from any course not already taken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

1. ACCT 5371 Professional Accounting Research (3 sch) fulfills the TSBPA research education requirement. A student who has previously taken both ACCT 3321 Federal Income Tax I (3 sch) and ACCT 4311 Auditing Principles and Procedures (3 sch) can elect to substitute another course for ACCT 5371 Professional Accounting Research (3 sch).
2. ACCT 5341 Advanced Auditing and Assurance Services (3 sch) or ACCT 5381 Accounting Theory (3 sch) may be taken to fulfill the TSBPA communication education requirement.
3. BLAW 5345 Business Ethics (3 sch) does not meet the TSBPA ethics education requirement to sit for the CPA exam in Texas.
4. ACCT 5345 Ethics for Texas CPA Candidates and Business Executives (3 sch) fulfills the Texas State Board of Public Accountancy (TSBPA) ethics education requirement but does not count toward TSBPA’s 30 credit hours of upper level accounting coursework. A student who has previously taken ACCT 4345 Ethics for Texas CPA Candidates and Business Executives (3 sch) may not take ACCT 5345 Ethics for Texas CPA Candidates and Business Executives (3 sch) and must take an elective instead.

* Online offering

Note:

Students must comply with the college academic policies and requirements discussed earlier.

Courses

**ACCT 5312 Foundations of Accounting**
3 Semester Credit Hours (3 Lecture Hours)
Theoretical and applied facets of financial and managerial accounting for business. The course includes preparation and communication of financial information as well as the uses of accounting data in planning and controlling activities of business firms and other types of organizations. (This is a core course.) Not open to students who have completed six semester hours of accounting.

**ACCT 5315 Accounting Topics**
3 Semester Credit Hours (3 Lecture Hours)
A continuation of financial and managerial accounting with emphasis on applications, and analysis and interpretation of financial statements. **Prerequisite:** ACCT 5312.

**ACCT 5317 Oil, Gas and Energy Accounting**
3 Semester Credit Hours (3 Lecture Hours)
This course covers the basic principles of oil and gas accounting. Course topics include upstream oil and gas operations, successful efforts accounting, full cost pool accounting, accounting for production, exploration and construction, joint interest accounting, international operations, oil and gas taxation and analysis of oil and gas financial statements. **Prerequisite:** ACCT 3311.

**ACCT 5332 Controllership**
3 Semester Credit Hours (3 Lecture Hours)
Development and integration of budgets, variable budgets, cash budgets, capital budgets, and cost-volume-profit analysis for operational planning and financial controls. Case Study orientation. **Prerequisite:** ACCT 5312.

**ACCT 5337 Taxes and Business Strategy**
3 Semester Credit Hours (3 Lecture Hours)
A framework to analyze how tax rules affect decision-making. Cases and problems, taken from historical and current developments in tax planning, develop understanding of how changes in tax rules influence the behavior of various constituents in the broad business and regulatory environment. **Prerequisite:** ACCT 5312.

**ACCT 5340 Forensic Accounting**
3 Semester Credit Hours (3 Lecture Hours)
The course will cover the concepts and skills of forensic accounting investigations. The course focuses on the methods and technological tools used to detect occupational fraud. These include the steps in conducting an investigation, use of technological tools, witness and suspect interviewing techniques, investigation report writing, and expert testimony. **Prerequisite:** ACCT 5340 or 4311.

**ACCT 5345 Advanced Auditing and Assurance Services**
3 Semester Credit Hours (3 Lecture Hours)
This course is designed as a discussion-based seminar and case analysis to provide graduate students with an understanding of auditing theory, practice, and research methods. This course continues from Auditing Principles and Procedures (ACCT 4311) by implementing the auditing principles, standards, procedures, and practices learned in that course and applying them in case analysis. Topics include research of professional accounting and auditing standards, technical memo writing, professional ethics, professional judgment, sampling, forensic examinations, integrated audits, quality control reviews, assurance services, and other contemporary issues in auditing.
ACCT 5345 Ethics for Texas CPA Candidates and Business Executives
3 Semester Credit Hours (3 Lecture Hours)
The course will cover ethical theory, ethical reasoning, integrity, objectivity, independence and other core values and regulatory requirements associated with the practice of professional accounting and decision making of other executives, with an emphasis on corporate governance in the post-Sarbanes-Oxley regulatory environment. This course satisfies the ethics education requirement of the Texas State Board of Public Accountancy (TSBPA); however, it will not be counted for advanced accounting hours required to sit for the CPA exam. Students who receive credit for ACCT 4345 cannot also receive credit for ACCT 5345.

ACCT 5351 Strategic Cost Management
3 Semester Credit Hours (3 Lecture Hours)
A conceptual approach to the use of cost accounting information to support decision-makers as they develop, communicate, implement, evaluate and modify organizational strategy. The linkage between cost management and strategy is facilitated by examining such tools as: cost driver, value chain, and organizational design analyses.

ACCT 5355 Information Systems in Accounting
3 Semester Credit Hours (3 Lecture Hours)
A study of current topics in accounting information systems. Topics include the role of accounting information systems and their applications in a variety of computer environments including the Internet, service organizations, and centralized and decentralized environments.

ACCT 5370 Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
in an identified topic in accounting. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

ACCT 5371 Professional Accounting Research
3 Semester Credit Hours (3 Lecture Hours)
Course presents practice of general accounting research. Content includes study of professional research using authoritative standards and databases. The course develops procedures for identifying the applicable accounting issues, locating appropriate authority, and communicating the results of professional research. Through comprehensive case studies, students will obtain hands-on experience in researching and evaluating technical accounting, tax, and audit issues.

ACCT 5381 Accounting Theory
3 Semester Credit Hours (3 Lecture Hours)

ACCT 5391 Integrative Seminar in Accounting
3 Semester Credit Hours (3 Lecture Hours)
The use of case studies to explore the integration of financial accounting, auditing, taxation, managerial accounting and accounting information systems to assess their relationship individually and collectively to business decision-making. Must be taken at the end of the program after completion of all advanced, non-elective courses. In unusual circumstances, it may be taken concurrently with the final non-elective courses with the written permission of the Director of Master’s Programs.

ACCT 5396 Directed Individual Research or Readings
1-3 Semester Credit Hours
Contact the Director of Master’s Programs.

Master of Business Administration (MBA)

Program Description
The Master of Business Administration (MBA) program is designed for students with diverse undergraduate backgrounds. It is a program suitable for both non-business and business graduates. The program is offered in two delivery formats - on-campus MBA and online MBA.

The goal of the MBA program is to prepare individuals for the responsibilities of management in a wide variety of business and non-business endeavors. Optional concentrations are available, by taking additional hours, in Accounting, Finance, Health Care Administration, and International Business.

Student Learning Goals and Objectives
- G1. To be effective communicators
  - O1. Students demonstrate the ability to integrate data and analysis effectively in written form (proper grammar, spelling, syntax, and construction).
  - O2. Students demonstrate the ability to present data and analysis effectively in public presentations with professional and technical presentation skills.
- G2. To be competent in business practices
  - O1. Students demonstrate basic knowledge of business theories and understanding of how to apply correct business concepts.
  - O2. Students demonstrate the ability to integrate theories, concepts, and practices across disciplines to develop practical answers.
  - O3. Students demonstrate the ability to use technology effectively to analyze data.
- G3. To be good decision makers
  - O1. Students demonstrate the ability to identify valid and reliable information applicable to the issue at hand in an effective and efficient manner.
  - O2. Students demonstrate the ability to generate multiple responses to issues and analyze the relative value of these responses
  - O3. Students demonstrate the ability to determine the appropriate response and provide rationale for the selected response
- G4. To be good citizens
  - O1. Students demonstrate the ability to apply concepts of ethics to business practices and to assess the impacts of their decisions.

For Additional Information
Website:
http://www.cob.tamucc.edu

Campus address:
Michael and Karen O’Connor Building, OCNR 234
Phone: (361) 825-2655
Admission Requirements

Applicants must comply with University procedures and meet University standards for admission. Applicants must submit an application to the Office of Recruitment and Admissions. Also required are a resume or curriculum vitae, an essay describing professional and educational goals in at least 500 words, and other information that may have impacted the applicant’s decision to pursue graduate study or deemed important to individual or career goals. Applicants are required to submit Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE) scores prior to admission. Generally, GMAT and GRE scores will not be accepted if over five years old. The GMAT or GRE is not required of applicants with a last 60 hours GPA of at least 3.0 and a grade of at least B in a college algebra or higher level mathematics course or for Executive MBA applicants. The GMAT or GRE is not required of applicants who earned a graduate degree (master’s, doctoral, etc.) from a regionally accredited university and have at least a grade of B in college algebra or a higher level mathematics course. The GMAT or GRE is not required for applicants to the Executive MBA program. In addition to the admission requirements listed above, admission to the Executive MBA program requires a minimum of 5 years of professional work experience. A personal interview is required to assess the applicant’s scope of managerial responsibility and experience.

Admission decisions are made on the basis of undergraduate performance, GMAT or GRE scores (if required), experience, and other indicators of the ability to pursue graduate study successfully. To be accepted in the graduate program, in addition to other requirements, applicants must be in good standing at the college or university they previously attended. Official notification of the admission decision is issued by the Office of the Dean of the College of Business and is sent directly to the applicant. The College of Business does not have “conditional” or “non-degree seeking” graduate admission classifications. Normally, no credit will be applied toward a master’s degree for graduate classes taken prior to acceptance into a graduate degree program in business.

Program Requirements

The number of hours required for the MBA degree requirements range from 30 to 42 and vary by concentration area, delivery format, and necessity for foundational courses for students with non-business degrees. The program may require up to 42 hours of graduate work for non-business majors and may be completed in as few as 30 hours for students with an undergraduate degree in business. The on-campus and online MBA formats both require 30 hours for students with an undergraduate degree in business. The selection of a concentration would increase the number of hours in the program of study to 36 for a student with an undergraduate degree in business. The weekend-based Executive MBA program requires a total of 36 hours of coursework.

On-Campus and Online MBA

Students with Nonbusiness Degrees

Students who have had no undergraduate work in business may be required to complete 12 credits of core courses designed to provide preparation comparable to the professional core in the undergraduate curriculum of the College of Business. Some or all of these core courses may be waived for students who have received a "B" or better in comparable undergraduate courses.

Core Courses

The following courses form the core knowledge in business required for students with nonbusiness undergraduate degrees. Core courses cannot be taken for advanced course credit. Students must be admitted to the MBA program before enrolling in graduate level core courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 5312</td>
<td>Foundations of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ORMS 5310</td>
<td>Statistical and Decision Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5311</td>
<td>Foundations in Economics</td>
<td>3</td>
</tr>
<tr>
<td>FINA 5311</td>
<td>Financial Management Concepts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

* Online offering

Note:

The Director of Master’s Programs may waive core courses if the student has previously completed appropriate business courses. Graduate students from other colleges should consult the Director of Master’s Programs in the College of Business for selection of appropriate courses. Courses need to be taken in an order that allows satisfying the prerequisite requirements (check course descriptions for prerequisites).

Master of Business Administration Advanced Requirements

In addition to satisfying the core requirements in business, all MBA students must complete a minimum of 30 credits of advanced graduate courses at the 5315 level or higher (36 hours for those electing to concentrate in Accounting, Finance, Health Care Administration, or International Business as listed below). These advanced courses should be taken in the order listed to enhance understanding of course materials and satisfy needed prerequisites.

Students with an undergraduate major in the field of an advanced course may substitute an additional approved elective in that field. At least 18 credits must be in areas other than the area of concentration. Electives (courses numbered above 5315) are selected from the offerings of the College of Business.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MISK 5325</td>
<td>Software Based Business Solutions</td>
<td>3</td>
</tr>
<tr>
<td>OPSY 5315</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5315</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5315</td>
<td>Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>FINA 5320</td>
<td>Managerial Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5320</td>
<td>Organizational Behavior and Theory</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 5320</td>
<td>Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5355</td>
<td>Administrative Strategy and Policy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

1. Approved Electives
Concentration Courses

A concentration is not required in the MBA, but is available to students desiring degree specialization. Students who elect to concentrate in Accounting, Finance, Health Care Administration, or International Business are required to complete 36 hours of advanced courses: 24 hours of required credits and 12 hours in the area of concentration.

Accounting Concentration Requirements:

See the College of Business section of the Graduate Catalog for details on the MACc and the MBA programs. (An advanced degree is not currently required to meet the 150-hours standard for becoming a candidate for the CPA examination.) See the Texas State Board of Public Accountancy website for more information: https://www.tsbpa.texas.gov.

Students should also be aware that pursuant to TAC Rule 511.57(c), the Board will accept no fewer than 30 semester credit hours of accounting courses from the courses listed in subsection (e)(1) - (13) of this section. The courses must meet the Board's standards by containing sufficient business knowledge and application to be useful to candidates taking the UCPAE. A Board-recognized institution of higher education must have accepted the courses for purposes of obtaining a baccalaureate degree or its equivalent, and they must be shown on an official transcript. At least 15 of these hours must result from physical attendance at classes meeting regularly on the campus of the transcript-issuing institution.

Select four of the following:

- ACCT 5317 Oil, Gas and Energy Accounting
- ACCT 5337 Taxes and Business Strategy
- ACCT 5340 Forensic Accounting
- ACCT 5341 Advanced Auditing and Assurance Services
- ACCT 5355 Information Systems in Accounting
- ACCT 5370 Seminar
- ACCT 5371 Professional Accounting Research
- ACCT 5381 Accounting Theory
- ACCT 5396 Directed Individual Research Or Readings

Data Analytics Concentration

Select four of the following:

- MISC 5355 Business Data Base Management
- MISC 5355 Business Intelligence and Analytics
- MISC 5366 Data Warehousing and Data Mining for Business Intelligence
- Select one of the following elective courses:
  - MISC 5330 Website Development for E-Commerce
  - MISC 5350 Managing the Information Systems Function
  - MISC 5360 Business Application Development
  - MISC 5365 Enterprise Resource Planning
  - MISC 5367 Managing IT Projects

Finance Concentration

Select four of the following:

- FINA 5325 Real Estate Finance and Investments
- FINA 5330 Analysis of Derivative Securities
- FINA 5333 Personal Financial Planning
- FINA 5335 Multinational Finance
- FINA 5340 Investment and Portfolio Theory
- FINA 5345 Financial Markets and Institutions
- FINA 5347 Seminar
- FINA 5395 Directed Individual Research Or Readings

Health Care Administration Concentration

Select four of the following:

- HCAD 5312 The Health Care System
- HCAD 5320 Health Economics and Policy
- HCAD 5325 Health Care Financial Management
- HCAD 5330 Health Law and Ethics
- HCAD 5390 Health Care Selected Topics

International Business Concentration

Select four of the following:

- ECON 5335 International Economics
- FINA 5335 Multinational Finance
- MGMT 5335 Multinational Management
- MKTG 5335 Marketing in the International Environment

Approved Graduate Elective

Total Hours 12

Note:

Students in all graduate business programs must comply with the college academic policies and requirements described previously.

Courses

Accounting Courses

ACCT 5312 Foundations of Accounting
3 Semester Credit Hours (3 Lecture Hours)

Theoretical and applied facets of financial and managerial accounting for business. The course includes preparation and communication of financial information as well as the uses of accounting data in planning and controlling activities of businesses and other types of organizations. (This is a core course.) Not open to students who have completed six semester hours of accounting.

Prerequisite: ACCT 5312.

ACCT 5317 Oil, Gas and Energy Accounting
3 Semester Credit Hours (3 Lecture Hours)

This course covers the basic principles of oil and gas accounting. Course topics include upstream oil and gas operations, successful efforts accounting, full cost pool accounting, accounting for production, exploration and construction, joint interest accounting, international operations, oil and gas taxation and analysis of oil and gas financial statements.

Prerequisite: ACCT 3311.
ACCT 5332 Controllership  
3 Semester Credit Hours (3 Lecture Hours)  
Development and integration of budgets, variable budgets, cash budgets, capital budgets, and cost-volume-profit analysis for operational planning and financial controls. Case Study orientation.  
Prerequisite: ACCT 5312.

ACCT 5337 Taxes and Business Strategy  
3 Semester Credit Hours (3 Lecture Hours)  
A framework to analyze how tax rules affect decision-making. Cases and problems, taken from historical and current developments in tax planning, develop understanding of how changes in tax rules influence the behavior of various constituents in the broad business and regulatory environment.  
Prerequisite: ACCT 5312.

ACCT 5340 Forensic Accounting  
3 Semester Credit Hours (3 Lecture Hours)  
The course will cover the concepts and skills of forensic accounting investigations. The course focuses on the methods and technological tools used to detect occupational fraud. These include the steps in conducting an investigation, use of technological tools, witness and suspect interviewing techniques, investigation report writing, and expert testimony.  
Prerequisite: ACCT 3340 or 4311.

ACCT 5341 Advanced Auditing and Assurance Services  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed as a discussion-based seminar and case analysis to provide graduate students with an understanding of auditing theory, practice, and research methods. This course continues from Auditing Principles and Procedures (ACCT 4311) by implementing the auditing principles, standards, procedures, and practices learned in that course and applying them in case analysis. Topics include research of professional accounting and auditing standards, technical memo writing, professional ethics, professional judgment, sampling, forensic examinations, integrated audits, quality control reviews, assurance services, and other contemporary issues in auditing.

ACCT 5345 Ethics for Texas CPA Candidates and Business Executives  
3 Semester Credit Hours (3 Lecture Hours)  
The course will cover ethical theory, ethical reasoning, integrity, objectivity, independence and other core values and regulatory requirements associated with the practice of professional accounting and decision making of other executives, with an emphasis on corporate governance in the post-Sarbanes-Oxley regulatory environment. This course satisfies the ethics education requirement of the Texas State Board of Public Accountancy (TSBPA); however, it will not be counted for advanced accounting hours required to sit for the CPA exam.  
Students who receive credit for ACCT 4345 cannot also receive credit for ACCT 5345.

ACCT 5351 Strategic Cost Management  
3 Semester Credit Hours (3 Lecture Hours)  
A conceptual approach to the use of cost accounting information to support decision-makers as they develop, communicate, implement, evaluate and modify organizational strategy. The linkage between cost management and strategy is facilitated by examining such tools as: cost driver, value chain, and organizational design analyses.

ACCT 5355 Information Systems in Accounting  
3 Semester Credit Hours (3 Lecture Hours)  
A study of current topics in accounting information systems. Topics include the role of accounting information systems and their applications in a variety of computer environments including the Internet, service organizations, and centralized and decentralized environments.

ACCT 5370 Seminar  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
in an identified topic in accounting. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

ACCT 5371 Professional Accounting Research  
3 Semester Credit Hours (3 Lecture Hours)  
Course presents practice of general accounting research. Content includes study of professional research using authoritative standards and databases. The course develops procedures for identifying the applicable accounting issues, locating appropriate authority, and communicating the results of professional research. Through comprehensive case studies, students will obtain hands-on experience in researching and evaluating technical accounting, tax, and audit issues.

ACCT 5381 Accounting Theory  
3 Semester Credit Hours (3 Lecture Hours)  

ACCT 5391 Integrative Seminar in Accounting  
3 Semester Credit Hours (3 Lecture Hours)  
The use of case studies to explore the integration of financial accounting, auditing, taxation, managerial accounting and accounting information systems to assess their relationship individually and collectively to business decision-making. Must be taken at the end of the program after completion of all advanced, non-elective courses. In unusual circumstances, it may be taken concurrently with the final non-elective courses with the written permission of the Director of Master’s Programs.

ACCT 5396 Directed Individual Research or Readings  
1-3 Semester Credit Hours  
Contact the Director of Master’s Programs.

Economics Courses

ECON 5311 Foundations in Economics  
3 Semester Credit Hours (3 Lecture Hours)  
An intensive study for graduate students with limited or no academic experience in economics. Provides an introduction to economic principles, analysis and procedures used in graduate-level study.

ECON 5315 Managerial Economics  
3 Semester Credit Hours (3 Lecture Hours)  
A graduate-level course in managerial micro economics focusing on the use of economic tools and concepts to assist managers in decision-making. Topics may include market demand and elasticity, demand estimation, production and cost functions, marginal analysis under various forms of market structure and game theory.  
Prerequisite: ECON 5311.
ECON 5320  Health Economics and Policy
3 Semester Credit Hours (3 Lecture Hours)
An analysis and evaluation of classical and modern economic theory, principles and procedures applicable to the health care delivery system and their implications for public policy.
Prerequisite: ECON 311.

ECON 5335  International Economics
3 Semester Credit Hours (3 Lecture Hours)
An analysis of why international trade takes place and how private agents react to changes in government policies. Determination of exchange rates, exports, imports, capital flows, employment, prices, interest rates, and economic growth are the focus of simple analytical techniques. Monetary and fiscal policies are also examined in an international macroeconomics context.
Prerequisite: ECON 5311.

ECON 5370  Seminar
1-3 Semester Credit Hours
in an identified topic in economics. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

ECON 5396  Directed individual Research Or Readings
1-3 Semester Credit Hours
Contact Director of Master's Programs.

Finance Courses
FINA 5311  Financial Management Concepts
3 Semester Credit Hours (3 Lecture Hours)
An intensive study for students with limited or no academic experience in finance. Helps to provide an understanding of the concepts of present value, funds flow analysis, cost of capital, capital budgeting, and valuation theories used in corporate finance.
Prerequisite: ACCT 5312, ECON 5311 and ORMS 5310.

FINA 5320  Managerial Finance
3 Semester Credit Hours (3 Lecture Hours)
An expanded study of the theoretical framework of financial analytical principles, including contemporary topics. Combines theory and case analysis to integrate principles with practice, emphasis on the relevant theory, the application of theory to managerial problems, and the presentation of results in written and oral form. Applies concepts of corporate finance, accounting principles and quantitative analysis.
Prerequisite: FINA 5311 and ACCT 5315.

FINA 5325  Real Estate Finance and Investments
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the risks and rewards associated with investing in and financing residential as well as commercial real estate. These concepts include appraising/valuing income properties, valuing debt securities, and managing portfolios of properties and securities.
Prerequisite: FINA 5311.

FINA 5330  Analysis of Derivative Securities
3 Semester Credit Hours (3 Lecture Hours)
Analysis of financial derivative contracts; including options, futures and forward contracts; in particular commodity trading and hedging strategies. Swaps will be included in the presentation if time permits. Class is oriented to helping applicants pass the derivatives material on a broker's license exam.
Prerequisite: FINA 5311.

FINA 5333  Personal Financial Planning
3 Semester Credit Hours (3 Lecture Hours)
Survey course in financial planning. Covers topics in the financial planning process: cash, debt and savings management, taxes, housing decisions, insurance and risk management, investment alternatives, and retirement and estate planning.
Prerequisite: FINA 5311.

FINA 5335  Multinational Finance
3 Semester Credit Hours (3 Lecture Hours)
A study of corporate financial planning and decision making in a multinational environment. Topics covered include measurement and management of exchange rate risk, financing international trade, short- and long-term asset and liability management, direct foreign investment, cost of capital and capital structure, and country risk analysis.
Prerequisite: FINA 5311.

FINA 5340  Investment and Portfolio Theory
3 Semester Credit Hours (3 Lecture Hours)
A study of the financial markets, security, evaluation, efficiency of markets evaluation, investment goals and portfolio selection. Professional investment management techniques are examined in the context of modern portfolio theory. A unified systems approach is adopted for investment selection and control.
Prerequisite: FINA 5320.

FINA 5345  Financial Markets and Institutions
3 Semester Credit Hours (3 Lecture Hours)
The role of the financial markets and institutions in the global economy is examined including regulation, money market operations, global impact of central banking monetary policy, and determinants of interest rates and financial asset pricing.

FINA 5370  Seminar
1-3 Semester Credit Hours
in specific topics within Finance. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

FINA 5396  Directed Individual Research Or Readings
1-3 Semester Credit Hours
Contact Director of Master's Programs.

Management Courses
MGMT 5310  Organizational Behavior and Communication
3 Semester Credit Hours (3 Lecture Hours)
Introduction to essential management and communication functions within the business firm and its environment. Topics include basic principles of organization behavior and management, the process of research, communication and management decision making, and issues in the global business environment.

MGMT 5320  Organizational Behavior and Theory
3 Semester Credit Hours (3 Lecture Hours)
The study of individual, group, and intergroup behavior within organizations. Issues discussed include personality differences, power, politics, interpersonal relations, conflict management, work environment, satisfaction, performance, and team building.
Prerequisite: MGMT 5310.
MGMT 5330  Leadership
3 Semester Credit Hours (3 Lecture Hours)
This course provides an in-depth review of traditional as well as current theories in Leadership. Students will complete self-assessment exercises designed to assess their leadership style and ability as a leader. This course will drill future leaders in a variety of lessons in leadership from which they can develop and grow, as well as lessons of bad leadership illustrating what to avoid.

Prerequisite: MGMT 5310.

MGMT 5345  Business, Government, and Society
3 Semester Credit Hours (3 Lecture Hours)
An analysis of business, government, and society interaction and how these relationships affect outcomes and stakeholders in varying contexts. Contemporary business issues are examined in terms of how major social changes impact organizations. Corporate social responsibility and ethical conduct in business are given particular attention.

Prerequisite: MISY 2305.

MGMT 5350  Entrepreneurship
3 Semester Credit Hours (3 Lecture Hours)
An analysis of the organization and operation systems appropriate to owner-operated business firms. Business functions are examined with particular attention given to establishing and operating the firm.

MGMT 5355  Administrative Strategy and Policy
3 Semester Credit Hours (3 Lecture Hours)
An analysis of strategic decision making, policy, and strategy. Focus is on the integrative and multi-functional nature of organizational strategy decision. Intensive analysis of the influence of administrative decisions on organizational outcomes.

MGMT 5360  Human Resource Management
3 Semester Credit Hours (3 Lecture Hours)
An analysis and critique of concepts, theories and practices in human resource management, including employment planning, selection and placement, training and development, compensation systems, and performance appraisals.

MGMT 5370  Seminar
1-3 Semester Credit Hours
in an identified topic in management. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

MGMT 5396  Directed individual Research Or Readings
1-3 Semester Credit Hours
Contact Director of Master's Programs.

Management Information Systems Courses

MISY 5325  Software Based Business Solutions
3 Semester Credit Hours (3 Lecture Hours)
Study of computer-based technologies for facilitating the analysis and evaluation of business problems. Provides the student with a case-driven analysis of evaluating and selecting the appropriate software tool to match the required management application. Software coverage may include a variety of available packages, such as word processing, spreadsheets, databases, ftp, e-mail, and electronic presentation.

Prerequisite: MISY 2305.

MISY 5330  Website Development for E-Commerce
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the principles and techniques for client-side development using HTML, XHTML and CSS. Text editors and the software tools such as Dreamweaver will be used. This course includes designing for web standard, accessibility, usability, and workflow for web design.

MISY 5335  Business Data Base Management
3 Semester Credit Hours (3 Lecture Hours)
Concepts and methodology of data base planning, design, development, and management of the computerized data base for business-oriented applications. The logical models of hierarchical and network data bases are presented, but the emphasis is on the relational data base model. Exercises and assignments will be completed utilizing a relational DBMS package.

Prerequisite: MISY 2305.

MISY 5340  Electronic Commerce
3 Semester Credit Hours (3 Lecture Hours)
A study of the concepts of doing business via the Internet. General topics include electronic commerce history, opportunities, limitations, and risks. Technical discussions include the Internet, intranets, extranets, electronic payment systems, firewalls, security, protocols, servers, browsers, and ethics.

Prerequisite: MISY 2305.

MISY 5345  Business Data Communication Systems
3 Semester Credit Hours (3 Lecture Hours)
Characteristics of contemporary business data communication components, their configurations, and their impact on business-oriented applications. Includes the design, implementation and operation of peer-to-peer, and client-server network systems for organizational Intranets and Internet presence. Exercises and assignments will be completed using selected data communications facilities.

MISY 5350  Managing the Information Systems Function
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the role of information systems in businesses today. The focus of the course will be on management issues related to information systems. Major topics that will be covered include e-commerce, data management, networks, and management information systems.

MISY 5355  Business Intelligence and Analytics
3 Semester Credit Hours (3 Lecture Hours)
Overview of important concepts of business intelligence, and the use of analytics, technologies, applications and processes used by organizations to gain data-driven insights. These insights and predictions can be used to aid decision-making and performance management across functional areas, including marketing, operations, and finance. Students will learn to extract and manipulate data, and create reports, scorecards and dashboards, including mobile apps.
**MISY 5356 Systems Analysis and Design**
3 Semester Credit Hours (3 Lecture Hours)
This course develops the student's ability to analyze and manage an existing information system within an organization, to identify information requirements, and to specify the functions of a new information system. Include cost/benefit analysis of proposed information systems. Exercises and assignments will develop the student's systems analysis and design skills.

**MISY 5360 Business Application Development**
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the Visual Basic programming environment in the context of business application design and development. This course will place emphasis on performance characteristics and user interface design considerations.

**MISY 5365 Enterprise Resource Planning**
3 Semester Credit Hours (3 Lecture Hours)
A study of the management of information technology as it is practiced in organizations today. Traditional organizations are moving toward a more interconnected or networked business environment. A major focus is understanding the role and use of complex technology in the support of individual, workgroup, enterprise, inter-enterprise and international computing. This course will utilize a business process management approach through the use of enterprise software.

**MISY 5366 Data Warehousing and Data Mining for Business Intelligence**
3 Semester Credit Hours (3 Lecture Hours)
In the information age, organizations can and do collect massive amounts of data. Yet organizations are often "data rich" but "information and knowledge poor." This course is designed to prepare business professions who, by using analytical methods and data mining and data visualizations tools, will be able to harness the potential of data by extracting business intelligence that can be used to improve decisions and operations at various points in the value chain.
Prerequisite: MISY 5325, 5335 and ORMS 5310.

**MISY 5367 Managing IT Projects**
3 Semester Credit Hours (3 Lecture Hours)
This course covers issues related to managing projects in organizations. The course focuses on the management of projects and working as a team. Students are expected to draw on materials from other management information system courses, especially the Systems Analysis and Design, and Database Management courses.
Prerequisite: MISY 5335.

**MISY 5370 Seminar**
1-3 Semester Credit Hours
in an identified topic in management information systems. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

**MISY 5396 Directed individual Research or Readings**
1-3 Semester Credit Hours
Contact Director of Master's Programs.

**Marketing Courses**

**MKTG 5311 Marketing Concepts**
3 Semester Credit Hours (3 Lecture Hours)
An examination of basic marketing activities involved in the flow of goods, services, and ideas from producer to consumer or industrial user. A managerial emphasis designed for students with limited or no academic experience in marketing.

**MKTG 5320 Marketing Management**
3 Semester Credit Hours (3 Lecture Hours)
An advanced study of contemporary marketing management concepts, tools of analysis, and implementation of marketing programs.
Prerequisite: MKTG 5311.

**MKTG 5330 Social Media Marketing**
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the cutting edge social media tools necessary to perform effectively as marketing professionals. Topic coverage includes the understanding of social media unique structure, emerging segmentation and positioning practices, as well as evaluation and implementation of a social media marketing strategy.

**MKTG 5335 Marketing in the International Environment**
3 Semester Credit Hours (3 Lecture Hours)
A study of the environment within which a firm operating outside the U.S. considers the political, social, and economic variables that impact marketing decisions.
Prerequisite: MKTG 5311.

**MKTG 5360 Research in Marketing**
3 Semester Credit Hours (3 Lecture Hours)
An overview of the area of marketing research. A managerial orientation is used stressing such topics as the informational needs of marketing managers, the application of research in enterprise management, decision models and concepts, and research concepts and data analysis methodology.
Prerequisite: MKTG 5320.

**MKTG 5370 Seminar**
1-3 Semester Credit Hours
in an identified topic in marketing. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

**MKTG 5396 Directed individual Research or Readings**
1-3 Semester Credit Hours
Contact Director of Master's Programs.

**Operations Management Courses**

**OPSY 5315 Operations Management**
3 Semester Credit Hours (3 Lecture Hours)
Study of operations of manufacturing and service organizations. Introduction to operational design and control issues such as forecasting, capacity planning, facility location and layout, quality, JIT/lean philosophies and materials requirement planning. Emphasis on developing an operational strategy linking functional areas. Includes international, environmental, legal, and ethical aspects of operations.
Prerequisite: ORMS 5310.

**OPSY 5370 Seminar**
1-3 Semester Credit Hours (1-3 Lecture Hours)
in an identified topic in Operations Management. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

**OPSY 5396 Directed individual Research Or Readings**
1-3 Semester Credit Hours
Contact Director of Master's Programs.
Operations Research/Management Sciences Courses

ORMS 5301 Business Decision Analysis Tools
3 Semester Credit Hours (3 Lecture Hours)
An introduction to analytic tools for business and economic decision making. Topics include analytic methods appropriate for cost-volume-profit analysis, financial analysis and valuation, portfolio selection, capacity planning, job scheduling, process and facility design, market analysis, and decision tools needed in other courses.

ORMS 5310 Statistical and Decision Analysis
3 Semester Credit Hours (3 Lecture Hours)
A study of analytical methods useful for business and economic decision making. Topics include descriptive statistics, probability, inferential statistical methods, and decision analysis.

ORMS 5370 Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
in selected business applications of quantitative methods. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

ORMS 5396 Directed individual Research or Readings
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contact Director of Master’s Programs.

College of Education and Human Development
Expanding Possibilities, Creating Solutions

Mission
The College of Education and Human Development at Texas A&M University–Corpus Christi, devoted to excellence in instruction, research, and service, prepares leaders representing diverse backgrounds and experiences, to serve the educational needs in the global community.

Catalog Subject To Change
Our programs may be required to respond to inter-catalog edition mandates for curricular and or policy changes required by outside accreditation, licensing and certification requirements. Required timelines for these responses may not allow for standard college and university based review process. In such cases, programs will publish and disseminate information about changes on website and current student handbook addenda. Examples include Texas Education Agency (TEA), Texas Higher Education Coordinating Board (THECB), Council for Accreditation of Counseling & Related Educational Programs (CACREP) and the Commission on Accreditation of Athletic Training Education (CAATE).

Graduate Programs
The College of Education and Human Development (COEHD) offers the Doctor of Education, Doctor of Philosophy and Master of Science degrees in the majors listed below. The COEHD graduate program also offers the certification areas and Supplemental Certificates listed below.

• Doctor of Education
  • Educational Leadership
• Doctor of Philosophy
  • Counselor Education
  • Curriculum and Instruction
• Master of Science
  • Athletic Training
  • Curriculum and Instruction
  • Early Childhood Education
  • Educational Administration
  • Elementary Education
  • Instructional Design and Educational Technology
  • Kinesiology
  • Professional Counseling
  • Professional School Counseling
  • Reading
  • Secondary Education
  • Special Education

• Certification Areas
  • All-Level Education (EC-12)
  • Elementary Education (EC-6, 4-8)
  • Educational Diagnostician
  • Principal
  • Reading Specialist
  • School Counselor
  • Secondary Education (7-12)
  • Superintendent

• Supplemental Certificates:
  • Bilingual Education (EC-6)
  • English as a Second Language
  • Gifted and Talented

Graduate programs offered by the COEHD are designed to provide opportunities for students to engage in scholarly pursuits at advanced levels. Emphasis is placed on the acquisition and application of existing knowledge and the generation of new knowledge.

While the course sequence in some of the degrees is designed to provide graduates with competencies required for certification, degree plans may be tailored to meet the special needs of students who desire the degree, but not the certification.

College of Education and Human Development Graduate Policies and Regulations
In addition to the University’s graduate policies and requirements in the general section of the catalog, the College of Education and Human Development has the following policies and regulations.

Graduate Admission to the College of Education and Human Development
Applicants are eligible to pursue master- or doctoral-level course work in the COEHD if they meet the following conditions.

1. All applicants must meet the general graduate admission requirements of the University.
2. Applicants must have a minimum undergraduate GPA of 3.00 and a graduate GPA of 3.00 on the last 60 semester credit hours of undergraduate work and any previous work in graduate school.
3. Applicants must complete the goals statement as required on the application form. The statement should be between 300 to 400 words, and should include information about their reasons...
for pursuing graduate study and for choosing a specific graduate program in the College of Education and Human Development. Other background information relevant to the application may be included. Applications will be evaluated by the appropriate faculty and/or advisor within the College of Education and Human Development.

4. Students who have submitted all required application documents, but who do not meet the minimum GPA of 3.00, may enroll in the degree program of their choice in a conditional status in courses approved by the chair of the department in which the applicant seeks admission. Students seeking initial certification with a Master of Science in Elementary or Secondary Education must have at least a 2.5 GPA to be considered for conditional admittance into the Educator Preparation Program. (See “Conditional Status” in the “Admission (p. 7)” section of the catalog.) Such students must achieve not less than a 3.00 GPA in the specified courses. After completing at least 6 semester credit hours with a GPA of not less than 3.00 at this University, applicants may continue the application process into a graduate program in the College of Education and Human Development. Graduate students on conditional status can normally take no more than 6 graduate hours per semester until the conditional status is removed. However, students admitted conditionally in the Department of Counseling and Educational Psychology may take 9 semester credit hours per semester with the approval of the Department and Athletic Training Program within the Kinesiology Department may take 10 semester credit hours per semester with the approval of the Program. If students fail to meet the conditions stipulated by the department to which they were conditionally admitted, they will be suspended from the College of Education and Human Development for at least one year. During this suspension, they cannot take any graduate courses in the College of Education and Human Development. After a year’s suspension, students may reapply for the program of their choice. No more than 9 semester hours of courses taken at this University or any other University while in this conditional status may be applied to this specific graduate degree at Texas A&M University-Corpus Christi, except for Athletic Training which is allowed to take 10 credit hours.

Applicants for the counseling programs will have additional admission requirements. Please check with the Counseling Department for details.

Applicants for the doctoral programs in counselor education, curriculum and instruction, or educational leadership must meet all additional requirements for those programs as specified by the program. For doctoral application deadlines, see the catalog section for the appropriate doctoral program.

Applicants for the athletic training program will have additional admission requirements. Please check with the Kinesiology Department or Athletic Training Program for details.

Certification Plans and Master of Science Degree Plans

Prior to full or conditional acceptance into the College of Education and Human Development Graduate Program, students seeking initial certification and a Master of Science degree in Elementary Education or in Secondary Education must

1. meet all requirements of the College of Graduate Studies and pass the desired content area TExES Pre-Admission Content Exam (PACT). More information regarding the PACT can be found at https://www.tx.nesinc.com/;
2. Complete a screening essay to be read by a faculty member of the Department of Curriculum, Instruction, and Learning Sciences; and
3. Agree to and sign the Code of Ethics and Standards of the College of Education and Human Development’s Educator Preparation Program before being fully or conditionally admitted into the program. Certification and degree plans that involve Texas Education Agency rules also require approval of the Certification Officer prior to becoming certified to teach.

Students desiring to change from their initial choice of certification plan or degree plan must apply to, and be accepted by, the Program Area in which the new plan is offered. Any course waivers within the student’s plan must be filed in the COEHD Certification Office.

Admission Requirements to Teacher Education and Full Admission to Graduate Program

• Candidate must hold a Baccalaureate Degree from a accredited institution of higher learning. Official transcripts must reflect an overall 2.75 GPA on a 4.0 scale or 2.75 in last 60 hours.
• Candidate must pass the TExES Pre-Admission Content Test (PACT).
• Candidate must meet all requirements for admission to the graduate program and submit the online graduate application at http://gradschool.tamucc.edu/submission.html.
• Candidate must meet with the College of Education and Human Development Certification Officer to develop a certification plan.

Texas Examinations of Educator Standards (TExES)

In addition to successful completion of all courses, to be recommended for teacher certification, students must pass all appropriate TExES examinations required by the State Board for Educator Certification.

Certification programs must be completed or permission must be obtained from the program coordinator or designated person from each teaching field on the student’s certification plan before authorization will be granted to additional certification examinations.

The Pre-Admission Content Test (PACT) must be successfully completed prior to enrolling in the graduate program for an M.S. in Elementary or Secondary Education.

Initial certification in the following areas:

• Art EC-12
• Bilingual Generalist EC-6 (requires Bilingual target language proficiency test)
• English Language Arts and Reading 4-8
• English Language Arts and Reading 7-12
• Generalist EC-6
• History 7-12
• Life Science 7-12
• LOTE Spanish EC-12
• Mathematics 4-8
• Mathematics 7-12
• Music EC-12
• Physical Education EC-12
• Physical Science 6-12
• Science 4-8
• Social Studies 4-8
• Social Studies 7-12
• Special Education EC-12
• Theatre EC-12
Probationary Certificates
For those individuals who already hold a probationary certificate and need to extend that probationary certificate for a second and/or third year, the College of Education and Human Development offers students the opportunity to retake

EDUC 5393 Internship I and Seminar for the intern Teacher (3 sch) and EDUC 5394 Internship II and Seminar for the intern Teacher (3 sch) up to two additional times, for a total of 3 times per course; however the Internship I and Internship II courses will count only one time on the M.S. degree.

Upon completion of all required courses and passing of the required TExES EC-12 PPR exam, the student may apply to the Texas Education Agency for the initial teaching certification. Additional fees will be assessed by the Texas Education Agency and fingerprinting for background checks.

Certification Testing Accountability
The Texas Education Agency (TEA) requires competency exams for specified certification areas. TEA reports indicate that for completion year 2016-17, Texas A&M University-Corpus Christi is rated accredited.

Graduate Programs and Courses
A list of all graduate degrees offered by the COEHD may be found at the beginning of the "Education" page above. Provided below are details about the specific master's and doctoral programs, including information on admission requirements, degree requirements, related certificates, and other matters. Also provided below are descriptions of the courses offered by the degree programs and supporting disciplines. The following section is organized alphabetically by discipline.

Bilingual/ESL/Multicultural
Bilingual/ESL/Multicultural courses are designed for students pursuing supplemental certificates in Bilingual Education (EC-Grade 6) and English as a Second Language. Also, these courses are offered in support of graduate degree programs in fields such as Early Childhood Education and Curriculum and Instruction. For details concerning these programs, please see the list below of the catalog.

Programs
• Certificate and Certification Programs (p. 63)
  • Alternative Certification of Educators (ACE) (p. 63)
  • Counseling Spanish-Speaking Clients, Graduate Certificate (p. 69)
  • Educational Diagnostician, Graduate Certificate (p. 75)
  • Low-Incidence Disability, Graduate Certificate (p. 77)
  • Principal, Certificate (p. 79)
  • Programs Leading to Post-Baccalaureate Teaching Certification (p. 80)
  • Reading Specialist, Certificate (p. 82)
  • Superintendent, Certificate (p. 85)
  • Supplemental Graduate Certificates (p. 86)
• Doctoral Degree Programs (p. 89)
  • Counselor Education, PhD (p. 90)
  • Curriculum and Instruction, PhD (p. 97)
  • Educational Leadership, EdD (p. 103)
  • Master Degree Programs (p. 105)
• Athletic Training, MS (p. 105)
• Curriculum and Instruction, MS (p. 109)
• Early Childhood Education, MS (p. 112)
• Educational Administration, MS (p. 120)
• Elementary Education (MAC), MS (p. 122)
• Instructional Design and Educational Technology, MS (p. 124)
• Kinesiology, MS (p. 128)
• Professional Counseling, MS (p. 132)
• Professional School Counseling, MS (p. 140)
• Reading, MS (p. 147)
• Secondary Education (MAC), MS (p. 151)
• Special Education, MS (p. 153)

Certificate and Certification Programs
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• Educational Diagnostician, Graduate Certificate (p. 75)
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• Principal, Certificate (p. 79)
• Programs Leading to Post-Baccalaureate Teaching Certification (p. 80)
• Reading Specialist, Certificate (p. 82)
• Superintendent, Certificate (p. 85)
• Supplemental Graduate Certificates (p. 86)

Alternative Certification of Educators (ACE)
ACE is an Initial Teaching Certification Program for candidates who hold an undergraduate degree and wish to seek an initial teaching certification in an accelerated manner. Candidates must meet University admissions requirements as outlined in the Graduate Admissions section of this catalog.

Program Description
The courses for this program are offered online.

ACE is an Initial Teaching Certification Program for candidates who hold an undergraduate degree and wish to seek an initial teaching certification in an accelerated manner. Candidates must meet University admissions requirements as outlined in the Graduate Admissions section of this catalog. Furthermore, students must be accepted into the ACE program which includes demonstrating competencies in the desired teaching area by passing the content area state exam prior to entry. Should the student wish to continue and work towards a Master's degree in Elementary Education or Secondary Education, the four graduate courses taken in the ACE program will apply towards that degree completion. In addition, if the student completed an internship, the six graduate courses will also apply towards degree completion.

ACE offers initial certification in the following areas:
• Art EC-12
• Bilingual Generalist EC-6 (requires Bilingual Target Language Proficiency Test)
• English Language Arts and Reading 4-8
• English Language Arts and Reading 7-12
• Generalist EC-6
• History 7-12
• Life Science 7-12
• LOTE Spanish EC-12
• Mathematics 4-8
• Mathematics 7-12
• Music EC-12
• Physical Education EC-12
• Physical Science 6-12
• Science 4-8
• Social Studies 4-8
• Social Studies 7-12
• Special Education EC-12
• Theatre EC-12

ACE students enter the program as a cohort and begin in the first summer session or first fall session. These students may either complete clinical teaching, a 14-week, full-day, teaching practicum at a public or private school accredited by the Texas Education Agency, or an Internship, a one-year, supervised, professional assignment at a public or private school accredited by the Texas Education Agency that will lead to completion of a standard certificate. At the completion of the ACE program, the student must apply for initial certification at the Texas Education Agency website.

All ACE completers have available to them continued support through our staff and faculty members as needed and also online mentorship with Performance-based Academic Coaching Teams through a Texas A&M University Systems grant for up to three years post certification.

Admission Requirements

Candidates must:

• hold a Baccalaureate Degree from an accredited institution of higher learning. Official transcripts must reflect an overall 3.0 GPA for full admittance or 2.5 - 2.9 for consideration of conditional admittance in last 60 hours attempted.
• pass the TX Pre-Admission Content Test (PACT), if the undergraduate degree received is not in the certification content area.
• complete an interview essay and read & sign the Texas Teacher Code of Ethics.
• meet all requirements for admission to the graduate program and submit the online graduate application at http://gradschool.tamucc.edu/application.html.
• provide proof of English Language Proficiency must be established by the equivalent to/passing of English 1301 or 1302 or the Test of English as a Foreign Language. A transcript translation must occur by the equivalent to/passing of English 1301 or 1302 or the Test of

Candidate is admitted into ACE program on the recommendation of the Coordinator. Candidate should meet with the Certification Officer to ensure all certification requirements are met.

Retention in the ACE Teacher Education Program

Requirements for admission to and retention in the ACE Initial Teacher Certification Program are noted in the opening graduate catalog section for the College of Education and Human Development under “Programs Leading to Post-Baccalaureate Teaching Certification.” Please review this section for details.

Application and Recommendation for the Initial Teacher Certificate

Initial teacher certification by the Texas Education Agency is not automatically granted with the completion of an approved program of study. The ACE student must first be recommended for certification by the COEHD upon successful completion of the prescribed preparation program, passing of all required TExES tests, and the candidate’s submission of the online application through the Texas Education Agency website. Application fees are required.

Program Requirements

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<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tr>
<td>EDUC 5351</td>
<td>Foundations of Education in America 1,*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5352</td>
<td>Planning, Teaching, Learning Processes 1,*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5353</td>
<td>Classroom Management and the Student 1,*</td>
<td>3</td>
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Select one of the following:

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<th>Title</th>
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<tr>
<td>READ 5345</td>
<td>Stages and Standards for Reading Development *</td>
</tr>
<tr>
<td>READ 5369</td>
<td>Content Area Reading *</td>
</tr>
<tr>
<td>READ 5371</td>
<td>Diagnosis and Correction of Reading Problems *</td>
</tr>
</tbody>
</table>

Total Hours 12

1 Requirements for admission to clinical teaching or teaching internship for the ACE student are noted in the opening graduate catalog section for the college of Education and Human Development under “Admission to Clinical teaching or Teaching Internship”.

Clinical Teaching or Internship

Fall Semester: Before fall semester begins, apply for a job to work as either an intern teacher (a year-long, paid position in charge of your own classroom) or a clinical teacher (a single semester position in a classroom with a teacher).

If you choose the clinical teaching path, you will register for 6 hours of clinical teaching for the fall. These hours are not accepted for graduate credit, therefore you will be required to take two additional graduate level courses within the teacher preparation coursework.

If you choose the intern teacher path, you will register for:

<table>
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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>EDUC 5393</td>
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</tr>
<tr>
<td>EDUC 5394</td>
<td>Internship II and Seminar for the intern Teacher *</td>
<td>3</td>
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</tbody>
</table>

* Online offering
Courses

Teacher Education/Student Teaching Courses

EDUC 5327 Strategies of Success I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the first semester of the second year on a "Probationary Certificate."
Prerequisite: EDUC 5393 and 5394.

EDUC 5351 Foundations of Education in America
3 Semester Credit Hours
A course emphasizing multicultural aspects of education; requirements for teaching as they relate to special education students, including the gifted and talented; the legal and ethical aspects of teaching; and the forms of organization and management utilized in Texas and in the U.S. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5352 Planning, Teaching, Learning Processes
3 Semester Credit Hours
A course emphasizing the various aspects of planning for teaching: the teaching/learning process; curriculum organization; use of instructional media and technology; instructional planning; and instructional and student evaluation, including standardized testing programs, teacher evaluation, and various forms of instructional and student evaluation planned and conducted by the teacher. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5353 Classroom Management and the Student
3 Semester Credit Hours
A course emphasizing methods of organizing and managing a classroom, and student growth and development concepts and how they will affect classroom management. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5354 Methods of Teaching Mathematics
3 Semester Credit Hours
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5355 Methods of Teaching Social Studies
3 Semester Credit Hours
A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5356 Methods of Teaching Science
3 Semester Credit Hours
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students' prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5357 Strategies for Teaching in the Secondary School
3 Semester Credit Hours
A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5358 Applied Research and Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the finding, interpreting, and use of research to achieve a stated educational goal for each individual student. Concepts of tests and measurements will be emphasized for interpreting research results and gathering data for applied research. Students will develop and execute an applied inquiry project. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5390 Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
This course addresses contemporary issues in education. May be repeated for credit when the topic varies.

EDUC 5393 Internship I and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDUC 5352 - Planning, Teaching, Learning Processes* (or have completed EDUC 5352 - Planning, Teaching, Learning Processes*) and completed 30 contact hours of field observation.

EDUC 5394 Internship II and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.
Prerequisite: EDUC 5393 and 5352.

EDUC 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate."
Prerequisite: EDUC 5393, 5394 and 5327.
EDUC 5397  Practicum I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills for the beginning teachers during their third year on a "Probationary Certificate." Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken concurrently with EDUC 5327 first semester of the third year on a "Probationary Certificate." This course may not be taken for graduate credit if the student has taken EDUC 5393, EDUC 5394 or EDUC 5395.
Prerequisite: EDUC 5327, 5393, 5394 and 5395.

EDUC 5398  Practicum II and Seminar for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
Beginning teachers who are currently in their third year of a "Probationary Certificate" are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised supervision for effective classroom teaching. Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second (and final) semester of the third year on a "Probationary Certificate."
Prerequisite: EDUC 5327, 5393, 5394, 5395 and 5397.

EDUC 5696  Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
Contemporary issues in educational technology; topics vary with professional interests and needs of participants. This "hybrid" course focuses upon enabling students to design effective instructional activities and materials for on-line instruction within a learning management system (LMS) environment. Students will acquire research-based knowledge about the design and development of effective on-line instruction which is consistent with established best practices. Emphasis will be placed upon development of on-line instruction in curricular areas specified by the instructor or selected by the student, subject to instructor approval.

Reading Courses

READ 5310  Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy (K-3). Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of the language systems (reading, writing, speaking, listening). Of particular concern will be children's oral language, letter knowledge, reading and writing vocabularies, concepts about print, and auditory discrimination.

READ 5314  College/Adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adult education.

READ 5321  Fundamentals of Elementary Reading instruction I
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of methods, materials, and strategies for teaching reading. It is designed to provide graduate students with professional knowledge concerning current research, philosophical perspectives, essential program components, and pedagogical strategies essential to the teaching of reading. Enrollment limited to graduate students seeking initial teacher certification.

READ 5322  Fundamentals of Elementary Reading instruction II
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of theoretical, research, and pedagogical aspects of the reading-writing connection for grades 4-8 students. There will also be an emphasis on content area reading and study skills as well as the writing process. Enrollment limited to graduate students seeking initial certification.

READ 5323  Fundamentals of Secondary Reading instruction
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide graduate students with professional knowledge concerning current research, theory, essential program components, and pedagogical strategies in secondary literacy. Application of strategies to the reading, writing, and learning needs to adolescents will be emphasized. Areas of consideration will include classroom assessment of literacy study reading, and integrating trade books into the content classroom. Enrollment limited to graduate students seeking initial certification.

READ 5345  Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate.

READ 5346  Trends and issues in Literacy
3 Semester Credit Hours (3 Lecture Hours)
In this course students will examine the recent and past trends in literacy and the political, cultural, and research-based forces that influenced those trends. Attention will be given to how those trends have impacted and are impacting literacy instruction.

READ 5350  Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. This course is required for the Master Reading Teacher Certificate.

READ 5352  Theoretical Models of Reading and Writing
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide teachers opportunities to expand their knowledge of the theoretical ways in which reading and writing processes are related and the practical ways in which these parallel processes can be incorporated into the literacy curriculum.

READ 5355  Teaching Literacy through Technology
3 Semester Credit Hours (3 Lecture Hours)
In this course students explore research on the use of computers and related technology to (a) develop a more responsive literacy curriculum, and (b) determine literacy management and evaluation procedures in the technology environment.

READ 5357  Critical Literacy
3 Semester Credit Hours (3 Lecture Hours)
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts.
READ 5369  Content Area Reading
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students' abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation.

READ 5371  Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course students learn techniques for diagnosis and correction of reading problems as they work with children experiencing difficulty in learning to read.

READ 5372  Classroom Assessment and instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. This course is required for the Master Reading Teacher Certificate.

READ 5381  Exploring the Literature of Children and Adolescents
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the historical, social, and pedagogical developments of the field of literature for children and adolescents.

READ 5390  Professional Seminar: Special Topics in Literacy
3 Semester Credit Hours
The course addresses issues relevant to literacy. It may be repeated when topics vary.

READ 5392  Psycho-sociolinguistics and Reading
3 Semester Credit Hours (3 Lecture Hours)
This course explores the psychology of language as well as the social semiotics of language learning. Theories of cognition and sociolinguistics will be examined as they relate to literacy development in regular and specialized learning contexts.

READ 5393  Literacy Curriculum and Supervision
3 Semester Credit Hours (3 Lecture Hours)
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 5395  Leadership and Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes how to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues.

READ 5396  Literacy Research Seminar
3 Semester Credit Hours
This seminar is the culminating course in the graduate reading concentration. Current trends in literacy research, the critical examination of selected research studies, and the self-evaluation of professional needs and interests are included. This course calls for students to integrate information from previous classes with new information presented in this class in order to develop, conduct, and evaluate action-based research.

READ 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

READ 5697  Reading Practicum
6 Semester Credit Hours (6 Lecture Hours)
Students will have an opportunity to apply their knowledge of reading instruction by teaching children and youth with reading difficulties. They will gain knowledge of: the organization and management of the reading program, as well as early intervention strategies and programs. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies on the children and youth being tutored. Some emphasis will also be placed on the many roles of the reading professional.

READ 6310  Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy P-4. Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of language systems (reading, writing, speaking, listening). Of particular concern will be children's oral language, letter knowledge, reading and writing vocabulary, concepts about print, and auditory discrimination. Doctoral students enrolled in this course will be expected to complete all assignments designated for master's students and also complete additional specified assignments. Students who took this course as READ 5310 may not take the course as READ 6310.

READ 6314  College/adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adults. In addition, doctoral students will study topics related to educating adults in professional situations. Students who took this course as READ 5314 may not take the course as READ 6314.

READ 6345  Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5345 may not take the course as READ 6345.

READ 6350  Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. Doctoral students will have assignments that go beyond those for master's students. Students who took this course as READ 5350 may not take the course as READ 6350.

READ 6352  Theoretical Bases for Literacy
3 Semester Credit Hours (3 Lecture Hours)
Course focus is on major theories of reading and literacy in terms of both processes and practices. It also attends to ways in which theory relates to the literacy curriculum.
READ 6356 Writing for Publications in Higher Education  
3 Semester Credit Hours (3 Lecture Hours)  
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

READ 6357 Critical Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts. Doctoral students have assignments that go beyond those for master's students. Students who took this course as READ 5357 may not take the course as READ 6357.

READ 6369 Content Area Reading  
3 Semester Credit Hours (3 Lecture Hours)  
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students' abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5369 may not take the course as READ 6369.

READ 6371 Diagnosis and Correction of Reading Problems  
3 Semester Credit Hours (3 Lecture Hours)  
In this course, students will become aware of the factors that influence reading achievement through the study and implementation of various assessments. Some attention will also be paid to instructional strategies. The primary focus will be on children who are having difficulty reading. Students who took this course as READ 5371 may not take the course as READ 6371.

READ 6372 Classroom Assessment and Instruction  
3 Semester Credit Hours (3 Lecture Hours)  
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. Students who took this course as READ 5372 may not take the course as READ 6372.

READ 6380 Advanced Studies in Literature for Children and Adolescents  
3 Semester Credit Hours (3 Lecture Hours)  
This course will examine the historical, sociological, and pedagogical developments of the field of literature for children and adolescents and will emphasize teacher research and inquiry. The major emphasis of the course will focus on awareness of both traditional and contemporary literature and authors for children and adolescents.

READ 6390 Special Topics in Reading  
3 Semester Credit Hours (3 Lecture Hours)  
The course addresses contemporary issues in education. It may be repeated when topics vary.

READ 6391 Evaluation of Literacy Methods, Materials, and Assessment  
3 Semester Credit Hours (3 Lecture Hours)  
Reading professionals taking the course acquire the knowledge and strategies to evaluate literacy-related materials, methodologies, and assessment. In addition, they will develop a process to evaluate teacher-produced and commercial materials.

READ 6392 Psycho-sociolinguistics and Reading  
3 Semester Credit Hours (3 Lecture Hours)  
This course explores the psychology and the social semiotics of language and their relationship to literacy teaching and learning. Theories of cognition and sociolinguistics will be examined as frameworks for better understanding literacy development. Semiotics is the study of the signs and symbols of language and deals with their functions in the syntactic, semantic, and pragmatic use of language. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5392 may not take the course as READ 6392.

READ 6393 Literacy Curriculum and Supervision  
3 Semester Credit Hours (3 Lecture Hours)  
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 6395 Leadership and Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This course emphasizes "how" to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues. Students who took this course as READ 5395 may not take the course as READ 6395.

READ 6396 Literacy Research Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
In this doctoral-level course in reading/literacy research, attention goes to historical and current trends in literacy research, the critical examination of selected reading research studies, and self-analysis of personal and professional interests and needs. This course calls for students to integrate information from previous graduate classes with information presented in this class to analyze and implement reading/literacy research. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5396 may not take the course as READ 6396.

READ 6397 Advanced Reading Supervision Practicum  
3 Semester Credit Hours (3 Lecture Hours)  
In this course, reading specialists will be provided with an opportunity to apply their supervisory skills in a practical situation. Students will observe and evaluate inservice teachers, as well as make suggestions for improvement. Course requirements include completion of teacher evaluation summaries; development of observation forms; description of a district-wide reading program; and planning and implementation of an inservice workshop.

READ 6399 Advanced Literacy Research Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to familiarize doctoral students with (a) historical avenues of literacy research, (b) current trends in literacy research, and (c) procedures for conducting personal research leading to a doctoral dissertation in some aspect of literacy education.  
Prerequisite: EDLD 6333.

READ 6666 Directed Individual Study  
1-6 Semester Credit Hours  
May be repeated when topics vary.
READ 6697  Reading Clinic Practicum
6 Semester Credit Hours
In this course students will have an opportunity to apply their knowledge
of reading instruction by teaching children with reading difficulties. In
addition, students will gain knowledge of strategies for comprehension,
word recognition and study skills. Literacy leaders and their contributions
to the knowledge base for reading and writing instruction will be
reviewed. Course requirements include the development of case studies.
Doctoral students have additional assignments that go beyond those
required of master's students. Students who took this course as
READ 5697 may not take the course as READ 6697.
Prerequisite: READ 5371 or 6371.

Counseling Spanish-Speaking
Clients, Graduate Certificate

Program Description
The Graduate Certification Program addresses the critical shortage of
trained professional counselors who serve the mental health needs of the
rapidly growing Hispanic/Latino population. The certificate is designed
for professional counselors to gain knowledge to conduct counseling
sessions in Spanish. The coursework includes three online courses and
two community internship experiences with online supervision.

Admission Requirements
Must hold a Master's degree in Counseling or currently be in final
semester of a Masters Counseling Program.

Program Requirements

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>Online Courses</td>
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<tr>
<td>CNEP 5329</td>
<td>Cultural Immersion: Diversity of Spanish Speakers</td>
<td>3</td>
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<tr>
<td>CNEP 5330</td>
<td>Professional and Technical Spanish</td>
<td>3</td>
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<tr>
<td>CNEP 5331</td>
<td>Strategies and Interventions for Spanish-Speaking Clients</td>
<td>3</td>
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<tr>
<td>Internship Courses (Requiring 50 direct client hours each)</td>
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<td>CNEP 5397</td>
<td>Practicum</td>
<td>3</td>
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<tr>
<td>CNEP 6395</td>
<td>Doctoral Practicum</td>
<td>3</td>
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<tr>
<td>Total Hours</td>
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- Students who have an opportunity to travel may take the CNEP 5329 Cultural Immersion: Diversity of Spanish Speakers (3 sch) and
  CNEP 5397 Practicum (3 sch) or CNEP 6395 Doctoral Practicum (3 sch) courses in a study abroad format in a Spanish-speaking country when offered.

Courses

CNEP 5304  Introduction to Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is an orientation to the profession of counseling, its
history, professional standards, code of ethics, credentials, areas of
specialization, and the development of skills necessary to create a
helping relationship. It covers the counselor's professional identity in
a variety of settings and roles. Opportunities are provided for students
to discover through self-awareness their suitability for the helping
profession.
CNEP 5313 Theories and Techniques in Substance Abuse Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of addictions treatment and the counseling dynamics involved, as well as the significance and impact of addictions within our society. Topics addressed in this course include: theories and models of addiction related to substance use as well as behavioral and process addictions; techniques and interventions related to treatment substance abuse and other addictions; principles, models, and documentation formats of biopsychosocial case conceptualization and treatment planning; and regulatory processes and substance abuse policy relative to service delivery opportunities in addiction counseling. Students will be expected to describe various methods of screening, assessment, and testing for addiction; articulate pertinent legal and ethical considerations specific to addiction counseling; and evaluate and identify individualized strategies and treatment modalities relative to clients’ stage of dependence, change, or recovery.

CNEP 5314 Theory and Practice of Multicultural Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the cultural differences of special populations of people. Emphasis on ethical use of appropriate counseling techniques for use with the major racial/ethnic groups and other special populations of people such as those who are physically or emotionally disabled, older, of different genders or of different sexual orientation. Topics addressed in this course include: theories and models of multicultural counseling; multicultural counseling competencies; cultural identity development; worldview, power, privilege, and oppression, social justice, and advocacy. Students will be expected to articulate effective strategies for working with and advocating for diverse populations; recognize the impact of heritage, attitudes, beliefs, and acculturative experiences on individuals’ view of self and others; and identify and eliminate barriers, prejudices, and processes of intentional and unintentional oppression and discrimination at the individual and institutional level. There are no prerequisites for this course.

CNEP 5315 Consultation and Responsive Services in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide both indirect services to children and adolescents via effective consultation and direct responsive services in the school setting. Topics addressed in this course include consultation models, crisis counseling models, crisis intervention, and school counselor roles in consultation and crisis response. Students will be expected to develop interventions in which consultation is the primary method of delivery, appropriately respond to crisis situations encountered in a school environment, create responsive services programming based on applicable data, and demonstrate skills needed for effective consultation and responsive services, and articulate the connection between consultation and responsive services. There are no prerequisites for this course.

CNEP 5316 Developmental School Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of the planning, design, implementation, and evaluation of comprehensive, developmental school counseling programs. The course includes student collaboration with existing school counseling programs to facilitate student professionalism and competence in consultation, strategy selection and implementation, program delivery, and community referral. This course is a requirement for eligibility to take the TExES school counselor examination.

CNEP 5317 Play Therapy: a Counseling Intervention
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for the purpose of studying the theory, techniques, and issues related to counseling children using play therapy. The class will consist of lecture, group discussion, video presentations, experiential activities and case studies. Designed for both school and community counselors.

CNEP 5318 Consultation in School Settings
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide indirect services to children and adolescents through effective consultation with parents, teachers, administrators and external referral sources. The emphasis of the course is on the acquisition of skills that follow a logical consultation model. The course has a didactic and experiential learning component. Students will become sensitized to socio-cultural diversity issues as they impact consultation, and to the ethical and legal issues pertaining to working in the schools. Current research will be used to guide the consultation process.
Prerequisite: (CNEP 5304 and 4308).

CNEP 5319 Introduction to Clinical Mental Health Counseling
3 Semester Credit Hours (3 Lecture Hours)
Research, identification, and design of systemic models of prevention and intervention that foster the healthy development of individuals in school and community settings. Focus will be both on assessment and implementation of culturally respectful approaches that invite collaboration with the family, school, community, and other contextual resources of children, adolescents, and adults.

CNEP 5320 Introduction to Marriage, Couple, and Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an introduction to marriage, couple, and family counseling. Topics addressed in this course include history and development of marriage, couple, and family counseling; theories and models of family systems and dynamics; theories and models of marriage, couple, and family counseling; and sociology of the family, family phenomenology, and family of origin theories. In addition, roles and settings of marriage, couple, and family counselors as well as professional credentialing and preparation of marriage, couple, and family counselors will be addressed. Students will be expected to successfully complete a variety of tasks, including projects, presentations, examinations, and role plays.

CNEP 5321 Advanced Strategies in Process Addictions and Substance Abuse
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to equip students with advanced strategies, techniques, and interventions for treating substance use disorders as well as behavioral and process addictions. Topics addressed in this course include: the diagnostic process and use of current diagnostic classification systems found in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD); assessment of biopsychosocial and spiritual history relevant to addiction; classifications and contraindications of commonly prescribed psychopharmacological medications for appropriate medical referral and consultation; psychological tests and assessments specific to addiction counseling; and the importance of vocation, family, social networks, and community systems in the treatment and recovery process for substance use disorders, behavioral addictions, and process addictions. Students will be expected to effectively assess, diagnose, and treat a variety of addictive disorders and process addictions using contemporary evidence-based practices.
Prerequisite: CNEP 5313.
CNEP 5322 Strategies in Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on clinical applications of major theoretical models of family counseling. Topics addressed in this course include principles and models of assessment and case conceptualization from a systems perspective; interventions and techniques of marriage, couple, and family counseling; and conceptualizing and implementing treatment. Students will be expected to demonstrate application of various approaches, including both case conceptualization and interventions, from a variety of theoretical models via case studies, role plays, and other course activities.
Prerequisite: CNEP 5320.

CNEP 5323 Counseling for Holistic Wellness
3 Semester Credit Hours (3 Lecture Hours)
This course provides an introduction and critical review of contemporary theory and research in models of holistic wellness including consideration of experiential and interventions that address lifestyle variables. The course also discusses the role of the professional counselor as interventionist in a variety of applied settings in assisting clientele in moving toward optimal health (not just absence of illness), through an integration of physical, psychological, social, spiritual and personal choice components of physical health and lifestyle management.

CNEP 5324 Counseling Couples
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the assessment and treatment of couple relationships. Major topics include but are not limited to research- and efficacy-based treatment models, legal and ethical standards, couples sexual counseling, premarital counseling and preventive psychoeducational approaches, gender and issues of diversity impacting couple relationships, research relevant to couple counseling, and societal trends.
Prerequisite: CNEP 5320.

CNEP 5326 Family Counseling for Child and Adolescent-Focused Issues
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on evidence-based family treatment of problems that are child- and adolescent-focused. Topics addressed in this course include principles and models of assessment and case conceptualization from a systemic perspective; use of appropriate assessments in family therapy; impact of trauma and addictions on families; evidence-based models and interventions in family counseling for problems that are child- and adolescent-focused; and conceptualization planning of intervention strategies in family counseling. Students will be expected to demonstrate the ability to utilize assessments, conceptualize treatment, and plan specific interventions to address child and adolescent related issues in family counseling.
Prerequisite: CNEP 5320.

CNEP 5327 Ethical and Legal Issues in Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course offers in-depth consideration of ethical and legal issues that affect the practice of counseling in clinical mental health counseling; marital, couple, and family counseling; addictions counseling; and school counseling settings. The course will assist students in understanding and formulating sound positions on a variety of major issues related to the field of counseling. Students are expected to be familiar with a variety of ethical codes as well as laws regulating the profession. Students will be expected to utilize ethical-decision-making models and codes of ethics to analyze cases, analyze content appropriate to their program emphases, apply relevant codes of ethics and laws, and demonstrate understanding of critical legal and ethical content.

CNEP 5328 Abnormal Human Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the principles of understanding the dysfunction in human behavior and development, including the impact of disaster, crises, and other trauma-causing events on developmental processes. Students will learn how dysfunctional behavior manifests and factors that increase one's vulnerability to abnormal human behavior. The primary topics of this course include theories of normal and abnormal personality development and the effects of crisis, disasters, and other trauma on diverse individuals across the lifespan. Students will be expected to demonstrate understanding of abnormal personality development as well as the impact of trauma-causing events on personality development via successful completion of tasks in various assignments which may include case studies, presentations, and examinations.

CNEP 5329 Cultural Immersion: Diversity of Spanish Speakers
3 Semester Credit Hours (3 Lecture Hours)
This course addresses cultural issues in Spanish-speakers such as concept of family, authority and social organization, communication method, thought, formality of address and spirituality. This course will be offered both as an online course and a study abroad experience. Students who have an opportunity to travel may take this course when it is offered in a Spanish-speaking country.

CNEP 5330 Professional and Technical Spanish
3 Semester Credit Hours (3 Lecture Hours)
This on-line course is an orientation to counseling clients in Spanish. Students will become familiar with terms to use to facilitate a session in Spanish. Professional counseling concepts include mental health, counseling techniques, communication skills, understanding and problem solving, goal setting, and consultation with other professionals.

CNEP 5331 Strategies and Interventions for Spanish-Speaking Clients
3 Semester Credit Hours (3 Lecture Hours)
This online course provides training in mental health strategies and interventions in counseling. The focus is on theories and techniques appropriate with Spanish-speaking clients.

CNEP 5332 Spanish-Speaking Internship I
3 Semester Credit Hours (3 Lecture Hours)
The Internship I experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision.

CNEP 5333 Spanish-Speaking Internship II
3 Semester Credit Hours (3 Lecture Hours)
The Internship II experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision. Students who have an opportunity to travel complete Internship II clinical work in a study abroad program in a Spanish-speaking country.
CNEP 5354 Developmental Issues in Human Personality and Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to address both historical and contemporary research in personality theory from a lifespan developmental perspective. Topics addressed in this course include normative patterns of personality development and adjustment; Major factors and conditions which are related to successful human adaptations including adult-child relations, personality defense mechanisms, developmental stages and abnormal behavior in addition to theories of personality. Social and Cultural foundations of personality development will also be covered. Students will be expected to demonstrate understanding of personality development across the lifespan as well as social/cultural influences on personality development through successful completion of various assignments which may include case studies, presentations, and examinations. There are no prerequisites for this course.

CNEP 5361 Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with both a theoretical and an experiential approach to group counseling dynamics and processes including therapeutic factors and group effectiveness, characteristics and functions of group leaders, recruiting, screening, and selecting group members, group settings and types of groups, ethical and cultural strategies for designing and facilitating groups, and a minimum of 10 clock hours of participation in a small group activity. There are no prerequisites for this course.

CNEP 5365 Stress Management and Integrated Wellness
3 Semester Credit Hours (3 Lecture Hours)
This is a course designed to teach practical skills for managing stress and integrating wellness practices into the daily lifestyle. Students will be exposed to current knowledge base and experiential best practices for identifying stressors in their environment and developing strategies for their personal and client use.

CNEP 5371 Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with a basic knowledge for testing and measurement in the counseling field. Topics addressed in this course include historical perspectives concerning the nature and meaning of assessment and testing in counseling, methods of effectively preparing for and conducting initial assessment meetings, use of assessments for diagnostic and intervention planning purposes, basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, group and individual assessments, validity and reliability in assessments, the use of assessments relevant to academic/educational, career, personal, and social development, use of environmental assessments and systematic behavioral observations, use of symptom checklists and personality and psychological testing, use of assessment results to diagnose developmental, behavioral, and mental disorders, and ethical and culturally relevant strategies for selecting, administering, and interpreting assessment and test results, and program evaluation and the use of findings to effect program modifications. Covers functions of testing in education; educational and social issues related to testing and use of test results; theoretical aspects of psychometrics; selection of commercial standardized tests; and common commercial standardized tests. Students will be expected to demonstrate knowledge of the foundation and history of psychometric assessment, knowledge of the psychometric properties of assessments, including validity, reliability, and norming groups, knowledge of how to select, administer, interpret, and report the results of psychometric assessments, how to conduct a biopsychosocial assessment, and how to conduct a program evaluation and interpret the results. There are no prerequisites for this course.

CNEP 5374 Individual intelligence Testing
3 Semester Credit Hours (3 Lecture Hours)
Testing, scoring, and interpretation procedures for the Wechsler scales.

CNEP 5375 Clinical Mental Health Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to be a competency-based course with a primary focus on the practice and acquisition of specific techniques and interview skills. Topics addressed in this course include essential interviewing and decision-making skills, evidence-supported counseling strategies, culturally responsive modalities for initiating, maintaining, and terminating counseling, treatment planning, and strategies for promoting wellness and self-care. The student will demonstrate the ability to implement these competencies through discussion, conceptualization assignments, and experiential activities.
Prerequisite: CNEP 5384.

CNEP 5381 Psychodiagnosis and Treatment Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to cover types of human distress, as described in the Diagnostic and Statistical Manual of Mental Disorders, including the development of tools for the understanding and critical appraisal of abnormal human behavior across the life-span. Strategies and techniques for working with clients in a variety of settings are considered. The primary topic in this course is the diagnostic process, including differential diagnosis and the use of current diagnostic classification systems. Students will be expected to demonstrate understanding of the diagnostic process and treatment planning via successful completion of tasks in multiple case studies, mid-term examination, and final evaluation.
Prerequisite: (CNEP 5304 and 5308).
CNEP 5384  The Counseling Process
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to teach students how to use beginning counseling skills. Topics addressed in this course include counselor characteristics and behaviors that influence the counseling process, essential interviewing, counseling, and case conceptualization skills, and self-care strategies appropriate to the counselor role. Students will be expected to demonstrate the ability to understand and use basic micro-skills in counseling practice, and demonstrate knowledge of counselor characteristics and behaviors that can affect the counseling process. They will also be expected to demonstrate the practice and understanding of self-care via intentional personal wellness activities.

CNEP 5385  Bridge Supervision
1 Semester Credit Hour
Supervised counseling experience during breaks between academic semesters. Counseling setting must be the same as the practicum/internship setting either the previous or following semester. The course, while not required for the degree, is required for all students who obtain hours towards the practicum/internship requirements during between-semester breaks.

CNEP 5390  Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contemporary issues in Counseling/Educational Psychology; topics vary with professional identification of participants. May be repeated when topics vary.

CNEP 5397  Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide 100 clock hours of supervised counseling experiences, including 40 hours of direct service with clients. Clinical setting must be approved by the Clinical Coordinator. The semester prior to enrollment the student must complete the practicum application process. Students will be expected to demonstrate satisfactory counseling skills as well as a professional counseling identity as evidenced by a grade of B or above in the course and satisfactory ratings on professional behavior ratings. Students who earn a grade below C will be required to re-take the course.
Prerequisite: CNEP 5381 and (CNEP 5384 and 5327).

CNEP 5399  Specialized internship Experience
3 Semester Credit Hours
A supervised field experience in counseling and counseling-related activities. An internship application must be completed and submitted to the instructor.

CNEP 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

CNEP 5698  Internship
3 Semester Credit Hours
This course, to be taken twice (6 hours), is designed to provide 600 clock hours of supervised counseling experiences, including 240 hours of direct service with clients. The clinical setting must be approved and appropriate to the student’s emphasis. Students will be expected to provide direct counseling services appropriate to their program specialties and to fulfill additional roles common to the role of a counselor in their specialty as evidenced by evaluations from supervisors.
Prerequisite: (CNEP 5397, 5312, 5320, 5316 and 5375).

CNEP 6305  Advanced Theories in Individual and Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
Historical, theoretical, legal, ethical, and philosophical foundations in counseling with an emphasis on counseling and cultural issues, change theory, systems, and theory efficacy. Overview of major counseling theories includes identifying one’s personal theory. Projects include evaluation of theories with multicultural populations.

CNEP 6310  Advanced Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of various counseling strategies appropriate to the development levels of elementary, middle, and secondary school students, adults, couples, and families. Includes case conceptualization and efficacy of theories and treatment strategies of National and International crises, disaster, and other trauma-causing events, short term and intermediate intervention strategies and advocacy methods with at-risk and multicultural populations.

CNEP 6315  Professional, Legal, and Ethical Issues
3 Semester Credit Hours (3 Lecture Hours)
Examination of professional, legal, ethical, topical, and political issues in the counseling profession. Includes focus on counselor’s identity, relevant cultural concerns, and the counselor educators, role and responsibilities. Course material includes research writing projects and an Individual Development Plan (IDP).

CNEP 6316  Research, Writing and Publishing in a Multicultural Society
3 Semester Credit Hours (3 Lecture Hours)
Study of the professional standards of writing, publishing and presenting proposals in a diverse society. Topics include a review of contemporary research on diverse populations. Special emphasis is placed on student gaining knowledge and skill for conducting and communicating the results of scholarly inquiry through processes of editing, consultation and peer review processes.

CNEP 6320  Advanced Appraisal Techniques and Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This class focuses on facilitating student skills in development, planning, implementation and evaluation of assessment and testing programs. Topics include critical evaluation of validity and reliability of standardized and non-standardized assessments. Emphasis is placed on design parameters, specific assessment measures, and their use in program evaluation.

CNEP 6335  Consultation Theory and Professional Advocacy
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to identify effective consultation approaches/ styles and advocacy action planning. Students will acquire skills in assessing needs of counselors in training, developing programs and techniques for change, and program evaluation.

CNEP 6340  Diversity in Counselor Education
3 Semester Credit Hours (3 Lecture Hours)
(3 SCH). This course provides students with the awareness, knowledge, and skills required of counselors, counselor educators, and counseling supervisors to be effective leaders and advocates in an increasingly pluralistic and diverse society. The course will provide students opportunities to develop multicultural competencies by critically examining how issues related to social justice and diversity impact various therapeutic, instructional, consultative, and supervisory relationships.
CNEP 6350 Advanced Clinical Supervision  
3 Semester Credit Hours (3 Lecture Hours)  
Study of counselor training and supervision with an exploration of the major theoretical/conceptual models and an overview of current trends and practices. Course includes didactic and applied experiences. Legal, ethical and multicultural issues and challenges in diverse settings are addressed, in addition to the purposes of clinical supervision and the role of the supervisor.  
Prerequisite: CNEP 6305 and 6310.

CNEP 6354 Counselor Education Pedagogy  
3 Semester Credit Hours (3 Lecture Hours)  
(3 SCH). This class is designed to facilitate development of students’ knowledge, skills, and dispositions through an in-depth review of evidence-based practices associated with effective teaching practices used in counselor training thereby preparing students for careers in counselor education.

CNEP 6355 Leadership and Advocacy in Counselor Education  
3 Semester Credit Hours (3 Lecture Hours)  
This course is an exploration of issues of leadership in counselor education within a diverse society. Focus on problem identification, analysis, supervision, and problem-solving approaches within a multicultural framework. Emphasis is placed on leadership roles, theories, and skills.

CNEP 6360 Research Design and Statistics  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed as a doctoral level survey of Research Design and Statistics. The major focus will involve an examination of the theoretical assumptions underlying various research designs and the use of inferential statistics. Special emphasis will be placed on the selection of appropriate design for specific applications in counseling and educational contexts. The course will involve both theoretical exploration and instruction on the use of computer-based statistical tools (SPSS).

CNEP 6365 Advanced Research & Design in Wellness and Stress Management Practices  
3 Semester Credit Hours (3 Lecture Hours)  
Advanced skill development in designing programs and working with clients experiencing stress related disorders that impact the overall quality of their lives. A special emphasis will be placed implementation of design strategies for development and evaluating programs for improving performance and health.

CNEP 6370 Quantitative Research Methods I  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on expanding each student’s knowledge of research design and statistical analysis beyond CNEP 6360 and EDDL 6392. Specific topics will include general linear model approaches to analysis of variance and regression analysis. Students will utilize SPSS to complete regularly assigned problems in order to demonstrate their competence. In addition, a special emphasis will be placed on the development of advanced quantitative skills needed to evaluate programs and student processes within a counselor educator model.  
Prerequisite: CNEP 6360.

CNEP 6372 Quantitative Research Methods II  
3 Semester Credit Hours (3 Lecture Hours)  
This research methodology course is designed to provide doctoral students with application experience in quantitative, qualitative and mixed-method data analytic procedures. Students will address promises and pitfalls using advanced univariate, multivariate, and non-parametric techniques introduced in CNEP 6360 and CNEP 6370. Students will act as consultants and evaluators on projects developed by student research teams in the department. This course is designed to help students address data analytic applications relevant to professional consulting, clinical and counseling practice as well as contexts involving program evaluation in a wide range of professional settings.  
Prerequisite: CNEP 6320, 6360 and 6370.

CNEP 6384 Qualitative Research Methods I  
3 Semester Credit Hours (3 Lecture Hours)  
This course is experientially based on the philosophy, design, and practice of qualitative research. It is understood that participants have a solid background in methods (as defined by the positivist and post-positivist tradition) and statistics. Students will situate qualitative inquiry/research in their philosophical, theoretical, and historical situations, learn methods of qualitative design, and develop a capacity to collect, analyze, and interpret qualitative empirical materials.

CNEP 6385 Qualitative Research Methods II  
3 Semester Credit Hours (3 Lecture Hours)  
This course provides learners with advanced knowledge about and practice with specific qualitative designs commonly used in counseling research. It is understood that participants have a solid background in research methods generally (as defined by the positivist and post-positivist tradition) as well as introductory understanding of qualitative methods specifically. Learners will deepen their understanding of general qualitative methods (e.g., phenomenology) and will focus attention on one or more theory-driven approaches (e.g., descriptive phenomenology, hermeneutic phenomenology, specific grounded theory approaches), with particular attention to consistency of method approach including data analysis.

CNEP 6390 Professional Seminar.  
3 Semester Credit Hours (6 Lecture Hours)  
Special topics is an advanced study in an identified area of academic interest. May be repeated for credit when topics vary. Covers the knowledge base of the counseling profession.

CNEP 6395 Doctoral Practicum  
3 Semester Credit Hours (3 Lecture Hours)  
Provides/demonstrates professional counseling expertise with effective application of multiple counseling theories. Demonstrates case conceptualization and effective interventions across diverse populations and settings. The experience includes a minimum of 100 clock hours. Students will experience both the direct delivery of services, and weekly individual and group supervision. Opportunities for the evaluation of student counseling skills will be provided.

CNEP 6396 Doctoral Internship  
3-6 Semester Credit Hours (3-6 Lecture Hours)  
Provides an intensive, supervised professional experience in approved counseling and counselor education settings. Two internship courses are required. Each internship consists of a total of 300 clock hours of experience. Students will plan and participate in a variety of experiences relevant to the work of counselor education, which may include supervision, teaching, research, direct counseling, and leadership, all under supervision.
CNEP 6397 Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the application of research skills and inquiry methods. Students will be exposed to various methodological approaches and the components of scientific inquiry. Attention also will be given to ethical and legal issues in research.

CNEP 6398 Dissertation in Progress
1-6 Semester Credit Hours (1-6 Lecture Hours)
Completion of an approved research project under the supervision of a dissertation advisor. (Nine semester hour minimum.)

CNEP 6696 Directed individual Study
3-6 Semester Credit Hours (6 Lecture Hours)
May be repeated when topics vary.

Educational Diagnostician, Graduate Certificate

Program Description
The Educational Diagnostician certificate program can be taken concurrently with the MS Special Education degree program or alone by a certified teacher who has a graduate degree. This coursework prepares students to assess and diagnose learning difficulties of students.

Admission Requirements
To be eligible for the Educational Diagnostician program, the student must be a certified teacher. To be certified as an Educational Diagnostician, the student must have a master’s degree, successfully complete up to 33 semester hours for Educational Diagnostician Certification, and pass the required TExES exam.

Program Requirements

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<tr>
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<td>CNEP 5374</td>
<td>Individual intelligence Testing</td>
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<td>SPED 5310</td>
<td>Psychoeducational Testing</td>
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Related Area

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<tr>
<td>SPED 5315</td>
<td>Individuals with Exceptionalities in Schools*</td>
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<tr>
<td>SPED 5386</td>
<td>Strategic Reading and Language Instruction for Students with High-Incidence Disabilities</td>
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<td>Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities</td>
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Specialization Area

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<td>SPED 5380</td>
<td>Behavioral Supports and Interventions for Students with Disabilities</td>
<td>3</td>
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<tr>
<td>SPED 5311</td>
<td>Advanced Assessment</td>
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</tr>
<tr>
<td>SPED 5399</td>
<td>Individualized Programs for Students with Exceptionalities: Practicum</td>
<td>3</td>
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Total Hours 33

* Online offering
^ Blended offering

Courses

Special Education Courses

SPED 5310 Psychoeducational Testing
3 Semester Credit Hours (3 Lecture Hours)
Focuses on current research and best practice in assessment of exceptional learners, interpretation of formal and informal assessment data gathered through a variety of methods, assessment of students from diverse backgrounds and the application of data gathered via a multi-tiered system of support (MTSS). Instructor’s permission required.
Prerequisite: CNEP 5371 and 5374.

SPED 5311 Advanced Assessment
3 Semester Credit Hours (3 Lecture Hours)
Presents a variety of research-based assessment techniques and tools designed to assess exceptional learners. Academic and cognitive assessments are combined for interpretation and development of Full and Individual Evaluations.

SPED 5315 Individuals with Exceptionalities in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course provides basic information and skills for working with students with exceptionalities in a variety of settings. It also includes current trends, issues, and research pertaining to persons with exceptionalities.

SPED 5319 Introduction to Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the field of low-incidence disabilities. Students will explore foundational concepts including: definition and etiology, family and professional partnerships, special education law, and standards based IEPs.

SPED 5320 Application of Learning Principles
3 Semester Credit Hours (3 Lecture Hours)
This course prepares teachers, administrators, counselors and diagnosticians to use a variety of applied learning principles to increase student learning and minimize disruptive behavior.

SPED 5321 Supporting Access for Students with Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on areas of universal design, assistive technology, and resources that support the learning and independence of diverse learners both in school and community settings. Class sessions will be held both on campus and in community settings.

SPED 5324 Survey of Assistive Technology
3 Semester Credit Hours (3 Lecture Hours)
This course is an introduction to assistive technology for individuals with disabilities.

SPED 5325 Technology for Inclusion
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on the use of assistive technology to support and facilitate inclusion of students with disabilities in the classroom.
Prerequisite: ETEC 5301.

SPED 5326 Assistive Technology Assessment
3 Semester Credit Hours (3 Lecture Hours)
This course will provide systematic procedures for the assessment of individual student’s assistive technology needs. Legal issues of assistive technology and its impact on public education will be addressed.
Prerequisite: ETEC 5301.
SPED 5327  Motor Activity Programs for individuals with Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course examines the significant role of motor activity in the lives of people with disabilities. Major programmatic approaches to adapted physical activity are presented.

SPED 5340  Individuals with Multiple Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course is an advanced study of the adaptations, approaches, and supports necessary to meet the educational needs of students who have communication, intellectual, motor, sensory, and/or medical impairments.

SPED 5380  Behavioral Supports and Interventions for Students with Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on characteristics and classifications of children and adolescents with behavior disorders. Intervention orientations and associated education/treatment approaches for children and adolescents will be explored.

SPED 5385  English Learners and Special Education  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to prepare special educators to address the sociocultural and ethnolinguistic needs of English learners. Particular emphasis is placed on: understanding the influence of language and culture in the design of instruction to prevent academic difficulty; the identification of students who need additional instructional supports; appropriate referral, screening, and assessment of students suspected of having disabilities; and the design of individualized education plans for students who qualify for special education services.

SPED 5386  Strategic Reading and Language Instruction for Students with High-Incidence Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course focuses on reading and language strategies for teaching students with disabilities, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

SPED 5387  Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

SPED 5388  Current Issues in Special Education  
3 Semester Credit Hours (3 Lecture Hours)  
CURRENT ISSUES IN SPECIAL EDUCATION Addresses issues currently facing the special education area. The course will focus on the following topics: (1) law and litigation, (2) inclusion, (3) assessment and individualized educational plan (IEP) procedures, (4) classification and labeling, (5) collaboration and consultation, (6) transition, (7) vocational education, (8) parent involvement, and (9) other relevant cultural pluralistic issues.

SPED 5390  Professional Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
Topics in Special Education vary with professional identification of participants.

SPED 5397  Special Education Field Experience  
3 Semester Credit Hours (3 Lecture Hours)  
A field-based experience in which the student will demonstrate competencies to design and/or implement IEP’s for students with disabilities, including those who are English learners. Grade assigned will be “credit” (CR) or “no credit” (NC).  
Prerequisite: SPED 5315 and (SPED 5380, 5320 and 5387).

SPED 5399  Individualized Programs for Students with Exceptionalities: Practicum  
3 Semester Credit Hours (3 Lecture Hours)  
Field-based practicum based on Texas Educational Diagnostician standards. This course focuses on opportunity to gain extensive field experience in the administration and interpretation of assessment instruments and the development of individualized education programs. Instructor’s permission required.  
Prerequisite: (CNEP 5371, 5374, SPED 5310, 5315 and 5387).

SPED 5696  Directed individual Study  
1-6 Semester Credit Hours  
May be repeated when topics vary.

SPED 6315  Individuals with Exceptionalities in the Schools  
3 Semester Credit Hours (3 Lecture Hours)  
Basic information and skills for working with individuals with exceptionalities in a variety of settings. Includes current trends, issues and research pertaining to individuals with disabilities. Students who have taken SPED 5315 may not enroll in SPED 6315.

SPED 6319  Introduction to Low-Incidence Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course introduces students to the field of low-incidence disabilities. Students will explore foundational concepts including: definitions and etiology, family and professional partnerships, special education law, and standards based Individualized Education Program (IEPs).

SPED 6320  Applications of Learning Principles  
3 Semester Credit Hours (3 Lecture Hours)  
This course prepares student(s) to use a variety of evidence-based approaches to increase student learning and minimize disruptive behavior.

SPED 6321  Supporting Access for Students with Low-Incidence Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course focuses on areas of universal design, assistive technology, and resources that support the learning and independence of diverse learners both in school and community settings. Class sessions will be held both on campus and in community settings.

SPED 6380  Behavior Intervention and Support for Students with Disabilities  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on characteristics and classifications of children and adolescents with behavior disorders. Intervention orientations and associated education/treatment approaches for children and adolescents will be explained.
The philosophical and legal foundations of bilingual special education and bilingual education in the United States will be examined. Bilingual special education and bilingual education will be defined and the rationale for these programs will also be explained. Moreover, language minority education program models will be described and aspects associated with bilingualism will be discussed. Special emphasis will be placed on a perusal of school-community dynamics relevant to language minority special education.

**SPED 6386 Strategic Reading and Language Instruction for Students with High-Incidence Disabilities**
**3 Semester Credit Hours (3 Lecture Hours)**
This course focuses on reading and language strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

**SPED 6387 Strategic Math and Content Area Instruction for Students with High-incidence Disabilities**
**3 Semester Credit Hours (3 Lecture Hours)**
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

**Low-Incidence Disability, Graduate Certificate**

**Program Description**
The Low-Incidence Transcripted Certificate is an interdisciplinary program which prepares graduate students to address and support the needs of students with significant support needs through evidence-based practices. This 3-course certificate is offered to educators in the field of special education and other related disciplines, such as: counseling, psychology, general education, and education administration.

**Program Requirements**
To receive a low-incidence disabilities transcripted certificate, the student must complete 9 semester hours of coursework consisting of the following 3 courses.

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<th>Code</th>
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<th>Hours</th>
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<td>Required Courses</td>
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<tr>
<td>SPED 5319</td>
<td>Introduction to Low-Incidence Disabilities</td>
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<tr>
<td>SPED 5320</td>
<td>Application of Learning Principles</td>
<td>3</td>
</tr>
<tr>
<td>SPED 5321</td>
<td>Supporting Access for Students with Low-Incidence Disabilities</td>
<td>^3</td>
</tr>
<tr>
<td>Total Hours</td>
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^ Blended offering

**Courses**

**SPED 5310 Psychoeducational Testing**
**3 Semester Credit Hours (3 Lecture Hours)**
Focuses on current research and best practice in assessment of exceptional learners, interpretation of formal and informal assessment data gathered through a variety of methods, assessment of students from diverse backgrounds and the application of data gathered via a multi-tiered system of support (MTSS). Instructor's permission required. **Prerequisite:** CNEP 5371 and 5374.

**SPED 5311 Advanced Assessment**
**3 Semester Credit Hours (3 Lecture Hours)**
Presents a variety of research-based assessment techniques and tools designed to assess exceptional learners. Academic and cognitive assessments are combined for interpretation and development of Full and Individual Evaluations.

**SPED 5315 Individuals with Exceptionalities in Schools**
**3 Semester Credit Hours (3 Lecture Hours)**
This course provides basic information and skills for working with students with exceptionalities in a variety of settings. It also includes current trends, issues, and research pertaining to persons with exceptionalities.

**SPED 5319 Introduction to Low-Incidence Disabilities**
**3 Semester Credit Hours (3 Lecture Hours)**
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**3 Semester Credit Hours (3 Lecture Hours)**
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This course will focus on the use of assistive technology to support and facilitate inclusion of students with disabilities in the classroom. **Prerequisite:** ETEC 5301.

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**3 Semester Credit Hours (3 Lecture Hours)**
This course will provide systematic procedures for the assessment of individual student's assistive technology needs. Legal issues of assistive technology and its impact on public education will be addressed. **Prerequisite:** ETEC 5301.
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3 Semester Credit Hours (3 Lecture Hours)
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SPED 5385 English Learners and Special Education
3 Semester Credit Hours (3 Lecture Hours)
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SPED 5386 Strategic Reading and Language Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on reading and language strategies for teaching students with disabilities, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

SPED 5387 Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities
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SPED 5390 Professional Seminar
3 Semester Credit Hours (3 Lecture Hours)
Topics in Special Education vary with professional identification of participants.

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3 Semester Credit Hours (3 Lecture Hours)
A field-based experience in which the student will demonstrate competencies to design and/or implement IEP's for students with disabilities, including those who are English learners. Grade assigned will be "credit" (CR) or "no credit" (NC).
Prerequisite: SPED 5315 and (SPED 5380, 5320 and 5387).

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3 Semester Credit Hours (3 Lecture Hours)
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Prerequisite: (CNEP 5371, 5374, SPED 5310, 5315 and 5387).

SPED 5696 Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

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SPED 6320 Applications of Learning Principles
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3 Semester Credit Hours (3 Lecture Hours)
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3 Semester Credit Hours (3 Lecture Hours)
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

Principal, Certificate
Program Description
The Principal Certificate may be obtained beyond the master’s degree upon completion of additional course work of 24 semester hours selected with the adviser’s approval. The Principal Certificate also requires that the student obtain a passing score on the TExES examination for Principalship, hold a Texas teaching certificate, and a minimum of two years of creditable teaching experience.

The Master’s Degree in Educational Administration from Texas A&M University-Corpus Christi also fulfills the TEA course requirements for the Principal’s Certificate.

For Additional Information
Website:
https://gradcollege.tamucc.edu/degrees/education/certificate_principal.html

Campus Address:
Faculty Center, Room 224
Phone (361) 825-2992
bernadine.cervantes@tamucc.edu

Mailing Address:
Department of Educational Administration and Research, Unit 5818
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5818

Program Requirements
The following requirements must be met in order to take the TExES principal exam:

Principal Practice Examination
At Texas A&M University-Corpus Christi an individual must participate in a faculty approved review workshop and be permitted by the faculty and the department chair to take the state TExES Principal Examination.

A student has seven years to complete all course work to earn a Principal Certification and have the approval to take the Principal (268) TExES exam. Please note that no course may be older than seven years at the time a student attempts the Principal (268) TExES exam. Students not completing the program within this time period will not be approved to take the Principal (268) TExES exam and may be required to complete additional coursework or satisfy other requirements to receive such approval.

In the event a candidate fails the principal exam, there is a state mandated wait period before a retest is available. Students who do not pass a state exam will be required to complete an assigned remediation activity (such as repeat a review session or similar) before test approval will be granted. Program faculty will determine the remediation activity after an assessment of the individuals’ test results has been completed.

Candidates who have not taken and passed the certification exam and/or applied for certification within 7 years of program completion date will be required to repeat or complete additional coursework, pass practice exams and engage in the services of outside test preparation programs. Failure to complete all requirements in the certification process within this time frame may render the candidate ineligible to continue testing or be recommended for certification by Texas A&M University-Corpus Christi. Texas A&M University-Corpus Christi reserves the right to deny certification recommendation beyond 7 years of candidate program completion without any further consideration. Appeals related to any portion of this program policy must be made in writing to the Dean of the College of Education and Human Development of Texas A&M University-Corpus Christi, with information copies of the appeal provided to the appropriate department chair and program coordinator.

For Students with a Prior Master’s Degree
For students with a prior Master’s Degree in Education who are seeking State Board for Educator Certification as a Principal, the following conditions will apply:

The department advisor will review the previous master’s degree coursework, practical work experience, and academic history of the student, and then prescribe 24 hours of coursework from the current list of required courses for the EDAD master’s degree or in certain instances from the EDLD doctoral degree.

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<td>EDAD 5363</td>
<td>Public School Law</td>
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<td>EDAD 5376</td>
<td>Supervision of Teaching</td>
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<td>EDAD 5377</td>
<td>Teacher Appraisal System</td>
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<td>or EDAD 6377</td>
<td>Teacher Appraisal System</td>
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<tr>
<td>EDAD 5378</td>
<td>Application of Administrative Concepts</td>
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<td>or EDAD 6378</td>
<td>Application of Administrative Concepts</td>
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<tr>
<td>EDAD 5399</td>
<td>School Administration Practicum</td>
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</table>
or EDAD 6399 School Administration Practicum

2 semesters for a total of 6 hours

Select one of the following: 3

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EDAD 5364</td>
<td>MANAGEMENT OF EDUCATIONAL PROGRAMS AND SPECIAL UNITS (from the master's degree)</td>
</tr>
<tr>
<td>EDAD 5374</td>
<td>Campus Finance and Budgeting (from the master's degree)</td>
</tr>
<tr>
<td>EDAD 6364</td>
<td>MANAGEMENT OF EDUCATIONAL PROGRAMS AND SPECIAL UNITS (from the doctoral degree)</td>
</tr>
<tr>
<td>EDAD 6374</td>
<td>CAMPUS FINANCE AND BUDGETING (from the doctoral degree)</td>
</tr>
</tbody>
</table>

Total Hours 24

The Principal Certificate also requires the student obtain a passing score on the Principal’s TExES examination.

Programs Leading to Post-Baccalaureate Teaching Certification

Program Description
Graduate Level Initial Teaching Certification Program

The Initial Teaching Certification Program is integrated as the initial portion of the Master of Science degree in Elementary Education or the Master of Science degree in Secondary Education. Students with an undergraduate degree seeking an initial teaching certification must meet University admissions requirements as outlined in the Graduate Admissions section of this catalog.

Admission Requirements

Requirements for admission to and retention in the Graduate Level Initial Teacher Certification Program includes:

1. Completion of the application process for admission to teacher education, (If denied admission, the student must reapply in order to be reconsidered for admission.) including passing the TX PACT exam in the desired content area, if the undergraduate degree received is not in the certification content area.
2. A minimum grade point average of 2.75 on all academic work attempted, or 2.75 on the last 60 hours attempted. (However, to remain in the program, a minimum GPA of 3.00 is required in all graduate work. See “Scholastic Probation and Enforced Withdrawal (p. 19)” in this catalog.)
3. Completion of EDUC 5351 Foundations of Education in America (3 sch), EDUC 5352 Planning, Teaching, Learning Processes (3 sch), and EDUC 5353 Classroom Management and the Student (3 sch) with a grade of “B” or better.
4. Teaching certificate areas and endorsement/Supplemental Certificate areas (i.e., History, English, Science and others) may require above the minimum grade point average of 2.75. Students are to check the catalog section that pertains to the certificate area or the endorsement/Supplemental Certificate for required GPA’s.
5. Completion of a criminal background check form.
6. Completion of T3 screening.
7. An interview with a Curriculum, Instruction, and Learning Sciences faculty member is required.

Note:

Every individual, upon application for initial teacher certification, will receive a national background investigation for a record of activity by the TEA/State Board for Educator Certification prior to issuance of the standard teaching certificate. Applicants for the Teacher Education Program may also be subject to a criminal background check by the partner school district. Districts have the right to refuse individual access to their schools and/or students at ANY time and Texas A&M University-Corpus Christi is obligated to honor that request. Inability to complete field requirements will preclude an individual from successfully meeting course requirements.

Individuals enrolled in the Graduate Level Initial Teacher Certification Program will be required to do field experiences during the day as part of their course work. Please contact an Academic Advisor in the College of Education and Human Development for information about a suggested degree completion plan.

Admission to Clinical Teaching or Teaching Internship

All initial teacher preparation programs offered by this University require appropriate professional laboratory experiences. Students may register for clinical teaching or, if employed by a Texas school district on an emergency teaching certificate, the student may register for a teaching internship. Registration for either clinical teaching or the teaching internship requires permission in writing from the Field Experiences Office. Clinical teaching or teaching internship must be completed at Texas A&M University-Corpus Christi, unless the Director of Field Experiences has approved a cooperative agreement with another University and written documentation is on file in the Office of Field Experiences.

Written application for admission to clinical teaching or teaching internship must be made to the Office of Field Experiences the semester before the assignment begins. The deadline for submitting applications is July 1 for students seeking Fall placement; November 1 for students seeking Spring placement.

Other requirements include:

1. Admission to the Teacher Education Program.
2. A minimum GPA of 2.75 on all academic work attempted or 2.75 on the last 60 hours attempted.
3. A minimum of 3.00 on all COEHD work attempted.
4. Completion of all professional education courses required reading courses with a grade of “B” or better.
5. Transfer students are to complete a minimum of 6 semester hours of required professional development education courses at the student’s level of certification at Texas A&M University-Corpus Christi.
6. Completion of a “Fall Experience” (beginning of the year activities in a public school) and submission of a written summary of the experience is required for all students seeking clinical teacher placement.
7. In order to be admitted into clinical teaching, the student must pass the TExES content test.

Recommendation for Initial Teacher Certification

Initial teacher certification by the TEA/State Board of Educator Certification is not automatically granted with the completion of an approved program of study. The student must first be recommended for certification by the COEHD. In order to be recommended, a student must:
1. Have successfully completed the appropriate approved certification program with an overall GPA of 2.75.
2. Have completed the appropriate clinical teaching or teaching internship experience with a grade of “B” or better.
3. Have passed all appropriate TEEX tests. In addition, students seeking certification in Bilingual Education must have passed the Bilingual Target Language Proficiency Test (BTLPT).
4. Submit an application online through the TEA/State Board for Educator Certification website for certification to the Certification Office in the COEHD. Application fees are required.

Courses

EDUC 5327 Strategies of Success I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions. This course is taken during the first semester of the second year on a “Probationary Certificate.”

Prerequisite: EDUC 5393 and 5394.

EDUC 5351 Foundations of Education in America
3 Semester Credit Hours
A course emphasizing multicultural aspects of education; requirements for teaching as they relate to special education students, including the gifted and talented; the legal and ethical aspects of teaching; and the forms of organization and management utilized in Texas and in the U.S. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5352 Planning, Teaching, Learning Processes
3 Semester Credit Hours
A course emphasizing the various aspects of planning for teaching: the teaching/learning process, curriculum organization, use of instructional media and technology, instructional planning, and instructional and student evaluation, including standardized testing programs, teacher evaluation, and various forms of instructional and student evaluation planned and conducted by the teacher. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5353 Classroom Management and the Student
3 Semester Credit Hours
A course emphasizing methods of organizing and managing a classroom, and student growth and development concepts and how they will affect classroom management. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5354 Methods of Teaching Mathematics
3 Semester Credit Hours
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5355 Methods of Teaching Social Studies
3 Semester Credit Hours
A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5356 Methods of Teaching Science
3 Semester Credit Hours
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students’ prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5357 Strategies for Teaching in the Secondary School
3 Semester Credit Hours
A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5358 Applied Research and Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the finding, interpreting, and use of research to achieve a stated educational goal for each individual student. Concepts of tests and measurements will be emphasized for interpreting research results and gathering data for applied research. Students will develop and execute an applied inquiry project. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5390 Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
This course addresses contemporary issues in education. May be repeated for credit when the topic varies.

EDUC 5393 Internship I and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDUC 5352 - Planning, Teaching, Learning Processes* (or have completed EDUC 5352 - Planning, Teaching, Learning Processes*) and completed 30 contact hours of field observation.

EDUC 5394 Internship II and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.

Prerequisite: EDUC 5393 and 5352.
EDUC 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but are currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate."
Prerequisite: EDUC 5393, 5394 and 5327.

EDUC 5397 Practicum I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This is a supervised classroom teaching field experience designed to enhance the individual teacher's existing teaching skills for the beginning teachers during their third year on a "Probationary Certificate." Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken concurrently with EDUC 5327 first semester of the third year on a "Probationary Certificate." This course may not be taken for graduate credit if the student has taken EDUC 5393, EDUC 5394 or EDUC 5395.
Prerequisite: EDUC 5327, 5393, 5394 and 5395.

EDUC 5398 Practicum II and Seminar for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
Beginning teachers who are currently in their third year of a "Probationary Certificate" are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised supervision for effective classroom teaching. Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second (and final) semester of the third year on a "Probationary Certificate."
Prerequisite: EDUC 5327, 5393, 5394 and 5397.

EDUC 5696 Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
Contemporary issues in educational technology, topics vary with professional interests and needs of participants. This "hybrid" course focuses upon enabling students to design effective instructional activities and materials for on-line instruction within a learning management system (LMS) environment. Students will acquire research-based knowledge about the design and development of effective on-line instruction which is consistent with established best practices. Emphasis will be placed upon development of on-line instruction in curricular areas specified by the instructor or selected by the student, subject to instructor approval.

### Reading Specialist, Certificate

All candidates seeking certification as a Reading Specialist must meet the following requirements as established by the Texas Education Agency (TEA).

1. Complete a Masters of Reading or closely aligned area.
2. Have two years teaching experience.
3. Complete 160 practicum hours. Since this is an all level certification, half of the hours are to be completed at the elementary level and the other half at the secondary level. All practicum hours are to take place at a TEA approved campus.
4. Complete a dyslexia module.
5. Sign Texas Education Code of Ethics for Educators.
6. Take and pass Exam 151, Reading Specialist.

### Program Requirements

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<td>READ 5345</td>
<td>Stages and Standards for Reading Development</td>
<td>3</td>
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<tr>
<td>READ 5350</td>
<td>Multicultural Literacy</td>
<td>3</td>
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<tr>
<td>READ 5369</td>
<td>Content Area Reading</td>
<td>3</td>
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<tr>
<td>READ 5371</td>
<td>Diagnosis and Correction of Reading Problems</td>
<td>3</td>
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<tr>
<td>READ 5392</td>
<td>Psycho-sociolinguistics and Reading</td>
<td>3</td>
</tr>
<tr>
<td>READ 5697</td>
<td>Reading Practicum</td>
<td>6</td>
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</table>

Total Hours 21

The Master's program in Reading is a state-approved program that fulfills the requirements in order to sit the certification exam as well.

### Courses

**READ 5310 Emergent Literacy**
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy (K-3). Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of the language systems (reading, writing, speaking, listening). Of particular concern will be children's oral language, letter knowledge, reading and writing vocabularies, concepts about print, and auditory discrimination.

**READ 5314 College/Adult Literacy**
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adult education.

**READ 5321 Fundamentals of Elementary Reading instruction I**
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of methods, materials, and strategies for teaching reading. It is designed to provide graduate students with professional knowledge concerning current research, philosophical perspectives, essential program components, and pedagogical strategies essential to the teaching of reading. Enrollment limited to graduate students seeking initial teacher certification.

**READ 5322 Fundamentals of Elementary Reading instruction II**
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of theoretical, research, and pedagogical aspects of the reading-writing connection for grades 4-8 students. There will also be an emphasis on content area reading and study skills as well as the writing process. Enrollment limited to graduate students seeking initial certification.

**READ 5323 Fundamentals of Secondary Reading instruction**
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide graduate students with professional knowledge concerning current research, theory, essential program components, and pedagogical strategies in secondary literacy. Application of strategies to the reading, writing, and learning needs of adolescents will be emphasized. Areas of consideration will include classroom assessment of literacy study reading, and integrating trade books into the content classroom. Enrollment limited to graduate students seeking initial certification.
READ 5345  Stages and Standards for Reading Development  
3 Semester Credit Hours (3 Lecture Hours)  
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate.

READ 5346  Trends and issues in Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
In this course students will examine the recent and past trends in literacy and the political, cultural, and research-based forces that influenced those trends. Attention will be given to how those trends have impacted and are impacting literacy instruction.

READ 5350  Multicultural Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. This course is required for the Master Reading Teacher Certificate.

READ 5352  Theoretical Models of Reading and Writing  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to provide teachers opportunities to expand their knowledge of the theoretical ways in which reading and writing processes are related and the practical ways in which these parallel processes can be incorporated into the literacy curriculum.

READ 5355  Teaching Literacy through Technology  
3 Semester Credit Hours (3 Lecture Hours)  
In this course students explore research on the use of computers and related technology to (a) develop a more responsive literacy curriculum, and (b) determine literacy management and evaluation procedures in the technology environment.

READ 5357  Critical Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts.

READ 5369  Content Area Reading  
3 Semester Credit Hours (3 Lecture Hours)  
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students’ abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation.

READ 5371  Diagnosis and Correction of Reading Problems  
3 Semester Credit Hours (3 Lecture Hours)  
In this course students learn techniques for diagnosis and correction of reading problems as they work with children experiencing difficulty in learning to read.

READ 5372  Classroom Assessment and instruction  
3 Semester Credit Hours (3 Lecture Hours)  
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. This course is required for the Master Reading Teacher Certificate.

READ 5381  Exploring the Literature of Children and Adolescents  
3 Semester Credit Hours (3 Lecture Hours)  
This course will examine the historical, social, and pedagogical developments of the field of literature for children and adolescents.

READ 5390  Professional Seminar: Special Topics in Literacy  
3 Semester Credit Hours  
The course addresses issues relevant to literacy. It may be repeated when topics vary.

READ 5392  Psycho-sociolinguistics and Reading  
3 Semester Credit Hours (3 Lecture Hours)  
This course explores the psychology of language as well as the social semiotics of language learning. Theories of cognition and sociolinguistics will be examined as they relate to literacy development in regular and specialized learning contexts.

READ 5393  Literacy Curriculum and Supervision  
3 Semester Credit Hours (3 Lecture Hours)  
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 5395  Leadership and Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This course emphasizes how to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues.

READ 5396  Literacy Research Seminar  
3 Semester Credit Hours  
This seminar is the culminating course in the graduate reading concentration. Current trends in literacy research, the critical examination of selected research studies, and the self-evaluation of professional needs and interests are included. This course calls for students to integrate information from previous classes with new information presented in this class in order to develop, conduct, and evaluate action-based research.

READ 5696  Directed individual Study  
1-6 Semester Credit Hours  
May be repeated when topics vary.

READ 5697  Reading Practicum  
6 Semester Credit Hours (6 Lecture Hours)  
Students will have an opportunity to apply their knowledge of reading instruction by teaching children and youth with reading difficulties. They will gain knowledge of: the organization and management of the reading program, as well as early intervention strategies and programs. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies on the children and youth being tutored. Some emphasis will also be placed on the many roles of the reading professional.
READ 6310 Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for
beginning literacy P-4. Emphasis will be on classroom strategies for
promoting language development and literacy growth for children
through the integration of language systems (reading, writing, speaking,
listening). Of particular concern will be children's oral language, letter
knowledge, reading and writing vocabulary, concepts about print, and
auditory discrimination. Doctoral students enrolled in this course will be
expected to complete all assignments designated for master's students
and also complete additional specified assignments. Students who took
this course as READ 5310 may not take the course as READ 6310.

READ 6314 College/adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college
and adult students will be explored. Students will learn about program
design, teaching/learning strategies, and assessment procedures
appropriate for developmental college students and adults. In addition,
doctoral students will study topics related to educating adults in
professional situations. Students who took this course as READ 5314
may not take the course as READ 6314.

READ 6345 Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state
content and performance standards. Particular emphasis is placed on the
interrelated components of reading and how these components apply in
reading instruction. Equal emphasis is placed on primary, middle school,
and high school students. This course is required for the Master Reading
Teacher Certificate. Doctoral students will complete a major research
paper on a topic to be approved by the professor. Students who took this
course as READ 5345 may not take the course as READ 6345.

READ 6350 Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to
multicultural literacy and biliteracy. This course examines the educational
issues confronting culturally and linguistically diverse students in
our schools today. Doctoral students will have assignments that go
beyond those for master's students. Students who took this course as
READ 5350 may not take the course as READ 6350.

READ 6352 Theoretical Bases for Literacy
3 Semester Credit Hours (3 Lecture Hours)
Course focus is on major theories of reading and literacy in terms of both
processes and practices. It also attends to ways in which theory relates
to the literacy curriculum.

READ 6356 Writing for Publications in Higher Education
3 Semester Credit Hours (3 Lecture Hours)
This course addresses topics in writing for publication in higher
education including the writing process, composition, organization,
collaboration, and the identification of forums for dissemination of
research and scholarship.

READ 6357 Critical Literacy
3 Semester Credit Hours (3 Lecture Hours)
Attention is on the theoretical and philosophical foundations of critical
literacy. Students expand the lens through which literacy in schools
may be viewed and develop a language of critique for analyzing literacy
in social, political, and economic contexts. Doctoral students have
assignments that go beyond those for master's students. Students who
took this course as READ 5357 may not take the course as READ 6357.

READ 6369 Content Area Reading
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students examine the theoretical and functional
aspects of literacy across the curriculum. Emphasis is placed on (a)
ways to promote and develop students' abilities to learn through text
based instruction, (b) ways to promote the acquisition of study skills,
and (c) ways to assist struggling readers in a classroom situation.
Doctoral students enrolled in this course will be expected to complete
all assignments designated for the master's level students and also
complete additional specified assignments. Students who took this
course as READ 5369 may not take the course as READ 6369.

READ 6371 Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course, students will become aware of the factors that influence
reading achievement through the study and implementation of various
assessments. Some attention will also be paid to instructional strategies.
The primary focus will be on children who are having difficulty reading.
Students who took this course as READ 5371 may not take the course as
READ 6371.

READ 6372 Classroom Assessment and instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate
reading assessments for all students. Particular focus is given to the role
and use of reading assessment for planning, designing, and adjusting
instruction to promote literacy learning for all learners. Students who
took this course as READ 5372 may not take the course as READ 6372.

READ 6380 Advanced Studies in Literature for Children and Adolescents
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the historical, sociological, and pedagogical
developments of the field of literature for children and adolescents and
will emphasize teacher research and inquiry. The major emphasis of the
course will focus on awareness of both traditional and contemporary
literature and authors for children and adolescents.

READ 6390 Special Topics in Reading
3 Semester Credit Hours (3 Lecture Hours)
The course addresses contemporary issues in education. It may be
repeated when topics vary.

READ 6391 Evaluation of Literacy Methods, Materials, and Assessment
3 Semester Credit Hours (3 Lecture Hours)
Reading professionals taking the course acquire the knowledge and
strategies to evaluate literacy-related materials, methodologies, and
assessment. In addition, they will develop a process to evaluate teacher-
produced and commercial materials.

READ 6392 Psycho-sociolinguistics and Reading
3 Semester Credit Hours (3 Lecture Hours)
This course explores the psychology and the social semiotics of
language and their relationship to literacy teaching and learning. Theories
of cognition and sociolinguistics will be examined as frameworks for
better understanding literacy development. Semiotics is the study of
the signs and symbols of language and deals with their functions in the
syntactic, semantic, and pragmatic use of language. Doctoral students
will complete a major research paper on a topic to be approved by the
professor. Students who took this course as READ 5392 may not take the
course as READ 6392.
READ 6393 Literacy Curriculum and Supervision
3 Semester Credit Hours (3 Lecture Hours)
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 6395 Leadership and Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes "how" to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues. Students who took this course as READ 5395 may not take the course as READ 6395.

READ 6396 Literacy Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
In this doctoral-level course in reading/literacy research, attention goes to historical and current trends in literacy research, the critical examination of selected reading research studies, and self-analysis of personal and professional interests and needs. This course calls for students to integrate information from previous graduate classes with information presented in this class to analyze and implement reading/literacy research. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5396 may not take the course as READ 6396.

READ 6398 Advanced Reading Supervision Practicum
3 Semester Credit Hours (3 Lecture Hours)
In this course, reading specialists will be provided with an opportunity to apply their supervisory skills in a practical situation. Students will observe and evaluate inservice teachers, as well as make suggestions for improvement. Course requirements include completion of teacher evaluation summaries; development of observation forms; description of a district-wide reading program; and planning and implementation of an inservice workshop.

READ 6399 Advanced Literacy Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize doctoral students with (a) historical avenues of literacy research, (b) current trends in literacy research, and (c) procedures for conducting personal research leading to a doctoral dissertation in some aspect of literacy education.

Prerequisite: EDLD 6333.

READ 6696 Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

READ 6697 Reading Clinic Practicum
6 Semester Credit Hours
In this course students will have an opportunity to apply their knowledge of reading instruction by teaching children with reading difficulties. In addition, students will gain knowledge of strategies for comprehension, word recognition and study skills. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies. Doctoral students have additional assignments that go beyond those required of master's students. Students who took this course as READ 5697 may not take the course as READ 6697.

Prerequisite: READ 5371 or 6371.

Superintendent, Certificate
Program Description
The Texas A&M University-Corpus Christi's Superintendent Professional Certification Preparation Program emphasizes the knowledge and skills for prospective district-level administrators to succeed in the 21st century.

The program is designed for working professionals. Our semi-cohort model allows you to balance class and practicum experience while continuing your work responsibilities.

As per the Texas Education Agency, there are four requirements to obtain a Superintendent certificate.

A candidate must:
- hold a master’s degree from a university that is accredited by an agency recognized by the Texas Higher Education Coordinating Board or the U.S. Department of Education Database for Accredited Colleges and Universities.
- hold a Principal certificate or the equivalent issued by the TEA, another state or country or; completed the superintendent certificate application and been approved by the TEA to substitute managerial experience in lieu of a principal certificate.
- successfully complete an approved superintendent educator preparation program.
- successfully complete the required exam.

For Additional Information
Website:
https://gradcollege.tamucc.edu/degrees/education/certificate_superintendent.html

Campus Address:
Faculty Center, Room 217
Phone (361) 825-3702

Mailing Address:
Department of Educational Administration and Research, Unit 5818
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5818

Program Requirements
The following requirements must be met in order to take the TExES superintendent exam:

At Texas A&M University-Corpus Christi an individual must first take the Superintendent Practice Examination and score at least an 80% proficiency before taking the state TExES Superintendent Examination. If more than six months pass between the practice test and request to take the actual test candidates will need to reestablish proficiency. It is highly recommended that testing candidates participants in the TExES Superintendent Review Sessions offered on an as needed basis.

A student has seven years to complete all course work to earn a Superintendent Certification and have the approval to take the Superintendent TExES exam. Please note that no course may be older than seven years at the time a student attempts the Superintendent TExES
exam. Students not completing the program within this time period will not be approved to take the Superintendent TEES exam and may be required to complete additional coursework or satisfy other requirements to receive such approval.

In the event a candidate fails the principal or superintendent exam, there is a state mandated 5-7 day wait period before a retest is available. Students who do not pass a state exam will be required to complete an assigned remediation activity before test approval will be granted. Program faculty will determine the remediation activity after an assessment of the individuals’ test results has been completed.

Candidates who have not taken and passed certification (Principalship or Superintendent) exams and/or applied for certification within 7 years of program completion date will be required to repeat or complete additional coursework, pass practice exams and engage in the services of outside test preparation programs. Failure to complete all requirements in the certification process within this timeframe may render the candidate ineligible to continue testing or be recommended for certification by Texas A&M University-Corpus Christi. Texas A&M University-Corpus Christi reserves the right to deny certification recommendation beyond 7 years of candidate program completion without any further consideration. Appeals related to any portion of this program policy must be made in writing to the Dean of the College of Education and Human Development at Texas A&M University-Corpus Christi, with information copies of the appeal provided to the appropriate department chair and program coordinator.

### Supplemental Graduate Certificates

#### Program Description
For those individuals who are already holding an initial teaching certificate, the College of Education and Human Development offers supplemental teaching certificate preparation in the three certificate areas noted below. Upon completion of the prescribed courses and passing the required TExES content area exam, the student may apply to the TEA/State Board for Educator Certification for this certificate.

#### Program Requirements

##### Bilingual Education (EC-Grade 6)

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIEM 5343</td>
<td>Foundations in Bilingual Education</td>
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<tr>
<td>BIEM 5344</td>
<td>Methods of Teaching Bilingual Children</td>
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##### English as a Second Language

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<tr>
<td>BIEM 5397</td>
<td>Practicum-Multicultural Education</td>
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**Total Hours** 12

##### Gifted and Talented

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<td>EDCI 5342</td>
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<tr>
<td>EDCI 5698</td>
<td>Practicum for Gifted Children</td>
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**Total Hours** 15

##### Courses

**Bilingual/ESL/Multicultural Education Courses**

- **BIEM 5343 Foundations in Bilingual Education**
  3 Semester Credit Hours (3 Lecture Hours)
  A study of bilingualism and bilingual education in the United States with attention to rationale, philosophy, and program models.

- **BIEM 5344 Methods of Teaching Bilingual Children**
  3 Semester Credit Hours (3 Lecture Hours)
  Methods and techniques of teaching bilingual students in elementary schools. Emphasis is on teaching Spanish language arts.

- **BIEM 5345 Developmental Linguistics**
  3 Semester Credit Hours (3 Lecture Hours)
  Language acquisition and development with special reference to their implications for teaching monolingual and bilingual students.

- **BIEM 5346 Pedagogical Implications of Bilingual/ESL**
  3 Semester Credit Hours (3 Lecture Hours)
  Overview of curriculum alignment in the bilingual classroom. Includes analysis of language assessment instruments and the pedagogical implications associated with the education of culturally and linguistically diverse students. Students who have taken BIEM 5346 may not enroll in BIEM 6346.

- **BIEM 5347 Methods of Teaching English As a Second Language**
  3 Semester Credit Hours
  Advanced studies in methodology and techniques available for teaching learners whose native language is not English. Some attention to sociolinguistics is considered.
EDCI 5308 STRATEGIES FOR TEACH SEC SCHOO
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES FOR TEACHING IN THE SECONDARY SCHOOL A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDCI 5315 METHODS OF TEACHING MATHEMAT
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDCI 5316 METHODS OF TEACHING SOC STUDIE
3 Semester Credit Hours (3 Lecture Hours)
METHODS OF TEACHING SOCIAL STUDIES A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences.

EDCI 5317 METHODS OF TEACHING SCIENCE
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course.

EDCI 5320 Mathematics through Communication
3 Semester Credit Hours (3 Lecture Hours)
A course for elementary and middle school teachers who are trying to improve mathematics teaching and understanding through the development of communication skills and their use in the mathematics classroom.

EDCI 5321 Mathematics through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers who wish to investigate the connection between children's literature and mathematics for the purpose of improving mathematics instruction. Teachers will work through activities based upon children's books, and develop and share similar activities based upon children's books of their choosing.

EDCI 5322 Science through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for elementary and middle school teachers who wish to investigate the connections between children's literature and science for the purpose of improving their science instruction. Teachers will participate in activities based on children's trade books that have scientific themes, and develop and share similar experiences.

EDCI 5323 Interactive and Multimedia Approaches in Mathematics
3 Semester Credit Hours (3 Lecture Hours)
This is a course for K-12 teachers who wish to investigate the use of motivational and reinforcement activities as a part of the instructional program within mathematics. Emphases will be placed on the purposes for using such activities in the mathematics program, the various types of such activities that are available to the mathematics teacher, the sources for such activities in mathematics, and the need for having a variety of such activities within the mathematics program.

EDCI 5324 DIAGNOSIS AND REMEDIATION OF MATHEMATICAL ERRORS
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers of K-12 who teach mathematics within the levels of kindergarten through algebra and wish to investigate mathematical errors for the purpose of diagnosing the cause and planning instruction for the purpose of remediation. Participating teachers will work through activities representing common mathematical errors made by students, maintain portfolios of samples of student errors, diagnose student errors, and learn teaching strategies for remediation of the problems that students are having.

EDCI 5325 Applied Connections: Mathematics, Science, and Communications
3 Semester Credit Hours (3 Lecture Hours)
The emphasis in this course is on interdisciplinary connections among mathematics, science, and communication and also on the application of subject-area knowledge to the world of work. Attention goes to relevant research, particularly research addressing effective innovations in teaching and learning. Networks will be created to support continued learning.
EDCI 5327 STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER This course is a field-based course in which beginning teachers are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5397. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5330 Teaching Environmental Sciences: I
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the elementary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5331 Teaching Environmental Sciences: II
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the secondary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5335 Methods of Teaching Mathematics: Grades 175
3 Semester Credit Hours (3 Lecture Hours)
A course designed to emphasize methods of teaching the essential elements in mathematics for Grades 175. An emphasis will be placed on the use of concrete manipulatives so that learning is accomplished with understanding.

EDCI 5336 Methods of Teaching Mathematics: Grades 578
3 Semester Credit Hours (3 Lecture Hours)
Emphasis will be placed on modeling with concrete manipulatives, teaching for understanding, integrating mathematics into other areas of the curriculum, problem solving, diagnosis, and evaluation.

EDCI 5339 PROGRAMS FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Characteristics and methods of identification of the Gifted and Talented. Various programmatic models including campus and district will be examined. Testing instruments and the concepts of differentiated curriculum will be analyzed.

EDCI 5340 Instructional Techniques for Effective Teaching
3 Semester Credit Hours (3 Lecture Hours)
This course will emphasize research-based strategies for increasing student achievement, models of successful instruction to help teachers/administrators plan, and techniques for implementation of effective instructional techniques.

EDCI 5341 Learning Theory Related to the Gifted Child
3 Semester Credit Hours (3 Lecture Hours)
An examination of current learning theories in relation to the gifted and talented child.
Prerequisite: EDCI 5339.

EDCI 5342 CURRICULUM DEVELOPMENT FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Learning experiences in scope and sequence development, development of unit plans and lesson plans, and material selection and evaluation.
Prerequisite: EDCI 5339.

EDCI 5345 Visual Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Instructional materials' design and development skills learned will be based on theoretical and research issues related to visual literacy.

EDCI 5350 Advanced School Problems
3 Semester Credit Hours (3 Lecture Hours)
Current issues in education; recent research bearing on teaching and organization of instructional programs in schools.

EDCI 5361 Educational Assessment
3 Semester Credit Hours (3 Lecture Hours)
This course will help educators to understand testing and performance assessment, and to effectively use assessment to support student learning ultimately building student success. The course prepares educators to use assessment as a tool to help develop all students in their classroom across the developmental span from Kindergarten through high school. Educators will learn how to prepare valid assessment instruments that contribute to effective instruction and student learning by developing proven, sound, high-quality assessments for use in the classroom.

EDCI 5362 Theoretical Bases for Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Reviewing and designing instructional programs; specific techniques for planning in various areas of the curriculum; concentration in area of student's curricular specialty; specification of instructional objectives.

EDCI 5389 Curriculum and instruction Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This is designed as the culminating course in the interdisciplinary curriculum and instruction master's degree. Covered in the class are: historical and current trends in research, the critical examination of selected research studies, and a self analysis of personal and professional interests and needs. This course calls for students to integrate and use information from previous graduate classes with information presented in this class to develop, implement, and defend an action-based research project.
Prerequisite: EDFN 5301 and EDCI 5340.

EDCI 5390 Professional Seminar
3 Semester Credit Hours
This course addresses contemporary issues in education. It may be repeated when topics vary.

EDCI 5393 INTERNSHIP I AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDCI 5306 or have completed EDCI 5306.

EDCI 5394 INTERNSHIP II AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.
EDCI 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions. This course is taken during the second semester of the second year on a “Probationary Certificate.”
Prerequisite: EDCI 5393, 5394 and 5327.

EDCI 5397 PRACT 1 FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM I FOR THE BEGINNING TEACHER This course is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5327. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5398 PRACT II AND SEMINAR FOR THE B
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM II AND SEMINAR FOR THE BEGINNING TEACHER Beginning teachers are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised classroom teaching. Enrollment is limited to certified teachers currently in teaching positions.

EDCI 5696 Directed individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

EDCI 5698 Practicum for Gifted Children
6 Semester Credit Hours (6 Lecture Hours)
This course involves a supervised experience with a variety of children classified as gifted. Students will plan and implement a program designed for gifted children.
Prerequisite: EDCI 5339.

EDCI 6301 Philosophy of Education
3 Semester Credit Hours (3 Lecture Hours)
Ontological and epistemological perspectives on leadership; historical conceptions of leadership as revealed in the works of Greek and Roman writers of the classical period and in the works of later European writers such as Machiavelli, Hobbes, Rousseau, Mill, and Weber.

EDCI 6303 ISSUES IN CURRICULUM AND INSTRUCTION
3 Semester Credit Hours (3 Lecture Hours)
This course will prepare the doctoral student in curriculum and instruction to understand, appreciate, and evaluate a variety of curricular strategies with attention paid to a continuum of philosophies and strategies in the area of curriculum development and the impact of those on instruction.
Prerequisite: EDCI 6301 or 6324.

EDCI 6324 Curriculum Theory
3 Semester Credit Hours (3 Lecture Hours)
An analysis of theoretical structures underlying curriculum development, implementation and evaluation.

EDCI 6335 CURRICULUM RESEARCH DESIGN
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the design of research studies, including experimental and quasi-experimental designs, other quantitatively-based designs, qualitatively-oriented designs, and mixed model designs.
Prerequisite: (EDLD 6392) and (EDLD 6333) and (EDLD 6384) and (EDLD 6385).

EDCI 6336 Culture, Language, and Cognition
3 Semester Credit Hours (3 Lecture Hours)
The focus is on cultural, linguistic, and pedagogical rationales for adapting curricula and materials to meet the needs of diverse students. By adopting various theoretical, methodological, and cultural frames of reference, course participants recognize capabilities in all learners.

EDCI 6356 Writing for Publications in Higher Education
3 Semester Credit Hours (3 Lecture Hours)
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

EDCI 6390 Special Topics in Curriculum
3 Semester Credit Hours (3 Lecture Hours)
This course addresses contemporary issues in education. Topics vary. It may be repeated when topics vary.

EDCI 6391 Historical Perspectives On Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Taking a historical perspective on the purposes and practices of schooling, this course covers major patterns in curriculum through the years in a national and global context. Also addressed are historiography and the history of educational research.

EDCI 6392 Critical Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
Attention goes to a set of philosophical positions and educational practices known as “critical pedagogy” and also to critiques and inquiries associated with this line of scholarship that address issues of difference and disadvantage. The course considers historical patterns as well as current manifestations in such areas as race, gender, and politics.

EDCI 6397 Seminar On Dissertation Research
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to assist students in writing a research proposal (introduction, review of literature, methods) that may become the basis for a doctoral dissertation.
Prerequisite: (EDCI 6335).

EDCI 6398 Dissertation in Progress
1-6 Semester Credit Hours
Doctoral candidates conduct an approved study under the supervision of a dissertation advisor and committee.

EDCI 6696 Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Doctoral Degree Programs

• Counselor Education, PhD (p. 90)
• Curriculum and Instruction, PhD (p. 97)
• Educational Leadership, EdD (p. 103)
Counselor Education, PhD

Accreditation
The Department of Counseling and Educational Psychology offers the Doctor of Philosophy degree in Counselor Education. The Ph.D. in Counselor Education is accredited by The Council for the Accreditation of Counseling and Related Educational Programs (CACREP), 500 Montgomery Street, Suite 350 Alexandria, VA 22314.

Mission Statement
The Department of Counseling and Educational Psychology at Texas A&M Corpus Christi, Texas A&M University-Corpus Christi, devoted to excellence in instruction, research, and service, prepares graduate-level counselors and counselor educators, representing diverse backgrounds and experiences, to facilitate impactful societal changes at the local, state, national, and international levels.

Program Description
Texas A&M University-Corpus Christi (TAMU-CC), through the College of Education and Human Development (COEHD), offers a Doctor of Philosophy (Ph.D.) degree in Counselor Education designed to prepare students for careers as counselor educators and supervisors. The Counselor Education program is a 69-semester hour program CACREP-accredited program. Through curricular and extracurricular activities, program faculty strive to ensure program graduates are well-equipped to perform at the highest level of effectiveness in their anticipated work settings; functioning as competent classroom instructors, supervisors, researchers, clinicians, and leaders in the profession and effectively utilizing their knowledge and skills in advocacy. Upon completion of the program, students find themselves competitive for placement in a variety of positions.

The doctoral program in Counselor Education at Texas A&M University-Corpus Christi is at the forefront in meeting current needs in training counselor educators. As such, the Department of CNEP faculty have identified several foundational curricular and professional objectives for each student enrolling in its doctoral counselor education program. Each of these objectives has specific outcomes measures.

Student Learning Outcomes/Objectives
Students will demonstrate the knowledge and understanding of:

- Leadership roles in counselor education
- Advocacy methods, particularly with underserved populations
- Developing and teaching graduate level courses in counselor education
- Supervision theory, personal style of supervision, and the practice of supervision
- Evaluating counselor education programs using CACREP standards
- Issues related to diversity, culture, multiculturalism, and multicultural competency
- Ethical and legal issues and codes of ethics in counseling
- Research paradigms and approaches used to conduct quality research investigations
- Designing research, both quantitative and qualitative
- Preparing and delivering scholarly presentations
- Writing for publication
- The identity of the counselor and counselor educator and the importance of one's involvement in professional organizations
- The importance of wellness and counselor self-care including strategies to enhance one's well-being
- The practice of counseling, including theory, techniques, strategies, and methods of evaluation

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/education/counselor_ed.html

Counselor Education, PhD

Admission Requirements
Students seeking admission to the doctoral program must submit the following:

1. An application data sheet.
2. A two-page professional goals statement.
3. Official transcripts of all undergraduate and graduate course work indicating the completion of requirements that are equal or equivalent to a master's degree accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Students not having appropriate course work will be required to take additional courses prior to admission.
4. A valid score on the Graduate Record Examination (GRE) that is no more than five years old.
5. Three letters of recommendation using forms provided by the Department.
6. A resume documenting work experience.
7. An interview by the admissions committee focusing on communication skills, self-awareness, and potential for scholarship, leadership, and advocacy.

Doctoral applicants should be aware that the Doctoral Admissions Committee begins their review of applicant information, including interviews, and makes acceptance decisions as early as January for the following fall enrollment. Early application is encouraged, since it allows students the best opportunity to secure one of the ten slots available, as well as scholarships, graduate assistantships, and financial aid.

Program Requirements
The degree requirements enhance the leadership capabilities of professional counselors who serve or plan to serve in the role of counselor educators, directors of counseling and guidance programs, research specialists in counseling and the behavioral sciences, supervisors in counseling and mental health, and direct service providers. The Doctor of Philosophy Degree in Counselor Education is awarded in recognition of the attainment of independent and comprehensive scholarship in the field. The doctoral program consists of a minimum of four academic years of graduate-level preparation.
(including entry-level preparation), defined as eight semesters with a minimum of 96 semester hours of graduate-level credits required of all students in the program. To qualify for the degree, the student must meet the following specific requirements.

1. **Residence**: Two consecutive sessions of full-time enrollment are required, to be completed during the first year of the program as members of a cohort group.

2. **Recency of Credit**: Courses completed for a prerequisite master’s degree do not need to meet the 10-year recency of credit rule for the doctoral program. All other courses that are part of the doctoral degree plan must abide by the seven-year rule on recency of credit.

3. **Entry-Level Courses**: Entry level coursework, equal/equivalent to master’s degree requirements specified in the most recent Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards is required.

4. **Doctoral Counseling Core Courses**: A minimum of 36 semester hours of doctoral-level core courses, including 6 semester hours of internship and 3 semester hours of practicum, are required.

5. **Research Courses**: An extensive sequence of research courses is required, including a minimum of 33 hours of research methodology and statistics. Courses in quantitative and qualitative analysis are required. Included within this research component is a minimum of nine hours of supervised dissertation.

6. **Doctoral Practicum and Internship**: All doctoral students are required to successfully complete a clinical component of the program, as noted in #3 above. This includes a doctoral practicum (CNEP 6395 – 3 semester hours/300 clock hours) and doctoral internships (CNEP 6396, 3-semester-hour courses that students take twice for a total of 600 clock hours.) The 600-hour doctoral internship includes supervised experiences in clinical settings, teaching, and supervision. In addition, students are given the opportunity to participate in additional supervised practica or internships that are appropriate to their career objectives.

7. **Comprehensive Examination**: Doctoral students are required to successfully complete a written comprehensive examination administered in two parts at the end of their first two academic years in the program.

8. **Dissertation and Final Examination**: Doctoral students are required to successfully complete a dissertation under the direction and supervision of their dissertation chair and committee members. There is a dissertation proposal defense at the time of one's proposal and a dissertation and final examination at the successful completion of one’s dissertation.

See Courses A-Z for information on graduate courses for this program.

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<td>Advanced Theories in Individual and Group Counseling</td>
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<td>CNEP 6310</td>
<td>Advanced Counseling Strategies</td>
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<td>CNEP 6315</td>
<td>Professional, Legal, and Ethical Issues</td>
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<td>CNEP 6320</td>
<td>Advanced Appraisal Techniques and Psychometrics</td>
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<td>CNEP 6350</td>
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<td>CNEP 6395</td>
<td>Doctoral Practicum</td>
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**Research Courses**

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<td>CNEP 6316</td>
<td>Research, Writing and Publishing in a Multicultural Society</td>
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<td>CNEP 6365</td>
<td>Advanced Research &amp; Design in Wellness and Stress Management Practices</td>
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<td>CNEP 6370</td>
<td>Quantitative Research Methods I</td>
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<td>CNEP 6372</td>
<td>Quantitative Research Methods II</td>
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<td>CNEP 6384</td>
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**Dissertation**

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**Total Hours**: 69

^ Blended offering

**Courses**

**CNEP 5304 Introduction to Counseling**

*3 Semester Credit Hours (3 Lecture Hours)*

This course is an orientation to the profession of counseling, its history, professional standards, code of ethics, credentials, areas of specialization, and the development of skills necessary to create a helping relationship. It covers the counselor’s professional identity in a variety of settings and roles. Opportunities are provided for students to discover through self-awareness their suitability for the helping profession.

**CNEP 5306 Career Counseling**

*3 Semester Credit Hours (3 Lecture Hours)*

This course covers classic and contemporary theories of career development, counseling, and decision making, including: the use of career/occupational resources, testing, computer-assisted guidance systems, career development planning, assessing factors contributing to career development, advocating for diverse clients, using assessment tools, facilitating client skill development, and using ethical and culturally relevant strategies for addressing career development including the clients’ life experiences. Career services in various settings will be discussed. Multicultural issues and needs of special populations will be presented. There are no prerequisites for this course.

**CNEP 5308 Counseling Theories**

*3 Semester Credit Hours (3 Lecture Hours)*

This course is designed to provide an overview of the theoretical foundations associated with best-practices for counseling treatment planning and intervention. Topics addressed in this course include the historical development and contemporary application of counseling theories, review of key concepts that influence client change, essential features of the therapeutic process, and considerations for culturally-relevant and setting-specific applications. Students will be expected to complete designated readings, work in small groups, complete experiential activities, and demonstrate learning across several modes of evaluation. There are no prerequisites for this course.
CNEP 5309  Grief and Loss Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of issues on death, dying, loss, and the impact of grief. Topics addressed in this course include various types of loss, including non-death related, conceptualizations of grief and mourning across the lifespan, evidence-based interventions to support the dying and bereaved individuals, and strategies for identifying and intervening with those who have clinically significant complicated grief. Students will be expected to explore their own grief reactions as well as examine the societal, cultural, and familial expectations surrounding grief and death rituals. There are no prerequisites for this course.

CNEP 5312  Addictions Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with the knowledge and skills necessary to address a wide range of issues in the context of addiction counseling, treatment, and prevention programs, as well as in a broader mental health counseling context. Topics addressed in this course include: the history and development of addiction counseling; principles and philosophies of addiction-related self-help; neurological, behavioral, psychological, physical, and social effects of psychoactive substances and addictive disorders on the user and significant others; cultural factors related to addiction and addictive behavior. Students will examine specific treatment strategies applicable to the biopsychosocial issues related to addictions, as well as current ethical and professional issues in the field. Students will be expected to articulate strategies for helping clients identify the effects of addiction on life problems and effectively partner with clients to reduce the persisting negative effects of substance use, abuse, dependence, and addictive disorders. There are no prerequisites for this course.

CNEP 5313  Theories and Techniques in Substance Abuse Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of addictions treatment and the counseling dynamics involved, as well as the significance and impact of addictions within our society. Topics addressed in this course include: theories and models of addiction related to substance use as well as behavioral and process addictions; techniques and interventions related to treating substance abuse and other addictions; principles, models, and documentation formats of biopsychosocial case conceptualization and treatment planning; and regulatory processes and substance abuse policy relative to service delivery opportunities in addiction counseling. Students will be expected to describe various methods of screening, assessment, and testing for addiction; articulate pertinent legal and ethical considerations specific to addiction counseling; and evaluate and identify individualized strategies and treatment modalities relative to clients’ stage of dependence, change, or recovery.

CNEP 5314  Theory and Practice of Multicultural Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the cultural differences of special populations of people. Emphasis on ethical use of appropriate counseling techniques for use with the major racial/ethnic groups and other special populations of people such as those who are physically or emotionally disabled, older, of different genders or of different sexual orientation. Topics addressed in this course include: theories and models of multicultural counseling; multicultural counseling competencies; cultural identity development; worldview, power, privilege, and oppression, social justice, and advocacy. Students will be expected to articulate effective strategies for working with and advocating for diverse populations; recognize the impact of heritage, attitudes, beliefs, and acculturative experiences on individuals’ view of self and others; and identify and eliminate barriers, prejudices, and processes of intentional and unintentional oppression and discrimination at the individual and institutional level. There are no prerequisites for this course.

CNEP 5315  Consultation and Responsive Services in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide both indirect services to children and adolescents via effective consultation and direct responsive services in the school setting. Topics addressed in this course include consultation models, crisis counseling models, crisis intervention, and school counselor roles in consultation and crisis response. Students will be expected to develop interventions in which consultation is the primary method of delivery, appropriately respond to crisis situations encountered in a school environment, create responsive services programming based on applicable data, and demonstrate skills needed for effective consultation and responsive services, and articulate the connection between consultation and responsive services. There are no prerequisites for this course.

CNEP 5316  Developmental School Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of the planning, design, implementation, and evaluation of comprehensive, developmental school counseling programs. The course includes student collaboration with existing school counseling programs to facilitate student professionalism and competence in consultation, strategy selection and implementation, program delivery, and community referral. This course is a requirement for eligibility to take the TExES school counselor examination.

CNEP 5317  Play Therapy: a Counseling intervention
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for the purpose of studying the theory, techniques, and issues related to counseling children using play therapy. The class will consist of lecture, group discussion, video presentations, experiential activities and case studies. Designed for both school and community counselors.

CNEP 5318  Consultation in School Settings
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide indirect services to children and adolescents through effective consultation with parents, teachers, administrators and external referral sources. The emphasis of the course is on the acquisition of skills that follow a logical consultation model. The course has a didactic and experiential learning component. Students will become sensitized to socio-cultural diversity issues as they impact consultation, and to the ethical and legal issues pertaining to working in the schools. Current research will be used to guide the consultation process.

Prerequisite: (CNEP 5304 and 4308).
CNEP 5319 Introduction to Clinical Mental Health Counseling
3 Semester Credit Hours (3 Lecture Hours)
Research, identification, and design of systemic models of prevention and intervention that foster the healthy development of individuals in school and community settings. Focus will be both on assessment and implementation of culturally respectful approaches that invite collaboration with the family, school, community, and other contextual resources of children, adolescents, and adults.

CNEP 5320 Introduction to Marriage, Couple, and Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an introduction to marriage, couple, and family counseling. Topics addressed in this course include history and development of marriage, couple, and family counseling; theories and models of family systems and dynamics; theories and models of marriage, couple, and family counseling; and sociology of the family, family phenomenology, and family of origin theories. In addition, roles and settings of marriage, couple, and family counselors as well as professional credentialing and preparation of marriage, couple, and family counselors will be addressed. Students will be expected to successfully complete a variety of tasks, including projects, presentations, examinations, and role plays.

CNEP 5321 Advanced Strategies in Process Addictions and Substance Abuse
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to equip students with advanced strategies, techniques, and interventions for treating substance use disorders as well as behavioral and process addictions. Topics addressed in this course include: the diagnostic process and use of current diagnostic classification systems found in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD); assessment of biopsychosocial and spiritual history relevant to addiction; classifications and contraindications of commonly prescribed psychopharmacological medications for appropriate medical referral and consultation; psychological tests and assessments specific to addiction counseling; and the importance of vocation, family, social networks, and community systems in the treatment and recovery process for substance use disorders, behavioral addictions, and process addictions. Students will be expected to effectively assess, diagnose, and treat a variety of addictive disorders and process addictions using contemporary evidence-based practices.
Prerequisite: CNEP 5313.

CNEP 5322 Strategies in Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on clinical applications of major theoretical models of family counseling. Topics addressed in this course include principles and models of assessment and case conceptualization from a systems perspective; interventions and techniques of marriage, couple, and family counseling; and conceptualizing and implementing treatment. Students will be expected to demonstrate application of various approaches, including both case conceptualization and interventions, from a variety of theoretical models via case studies, role plays, and other course activities.
Prerequisite: CNEP 5320.

CNEP 5323 Counseling for Holistic Wellness
3 Semester Credit Hours (3 Lecture Hours)
This course provides an introduction and critical review of contemporary theory and research in models of holistic wellness including consideration of experiential and interventions that address lifestyle variables. The course also discusses the role of the professional counselor as interventionist in a variety of applied settings in assisting clientele in moving toward optimal health (not just absence of illness), through an integration of physical, psychological, social, spiritual and personal choice components of physical health and lifestyle management.

CNEP 5324 Counseling Couples
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the assessment and treatment of couple relationships. Major topics include but are not limited to research- and efficacy-based treatment models, legal and ethical standards, couples sexual counseling, premarital counseling and preventive psychoeducational approaches, gender and issues of diversity impacting couple relationships, research relevant to couple counseling, and societal trends.
Prerequisite: CNEP 5320.

CNEP 5326 Family Counseling for Child and Adolescent-Focused Issues
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on evidence-based family treatment of problems that are child- and adolescent-focused. Topics addressed in this course include principles and models of assessment and case conceptualization from a systemic perspective; use of appropriate assessments in family therapy; impact of trauma and addictions on families; evidence-based models and interventions in family counseling for problems that are child- and adolescent-focused; and conceptualization planning of intervention strategies in family counseling. Students will be expected to demonstrate the ability to utilize assessments, conceptualize treatment, and plan specific interventions to address child and adolescent related issues in family counseling.
Prerequisite: CNEP 5320.

CNEP 5327 Ethical and Legal Issues in Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course offers in-depth consideration of ethical and legal issues that affect the practice of counseling in clinical mental health counseling; marital, couple, and family counseling; addictions counseling; and school counseling settings. The course will assist students in understanding and formulating sound positions on a variety of major issues related to the field of counseling. Students are expected to be familiar with a variety of ethical codes as well as laws regulating the profession. Students will be expected to utilize ethical-decision-making models and codes of ethics to analyze cases, analyze content appropriate to their program emphases, apply relevant codes of ethics and laws, and demonstrate understanding of critical legal and ethical content.
CNEP 5328 Abnormal Human Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the principles of understanding the dysfunction in human behavior and development, including the impact of disaster, crises, and other trauma-causing events on developmental processes. Students will learn how dysfunctional behavior manifests and factors that increase one's vulnerability to abnormal human behavior. The primary topics of this course include theories of normal and abnormal personality development and the effects of crisis, disasters, and other trauma on diverse individuals across the lifespan. Students will be expected to demonstrate understanding of abnormal personality development as well as the impact of trauma-causing events on personality development via successful completion of tasks in various assignments which may include case studies, presentations, and examinations.

CNEP 5329 Cultural Immersion: Diversity of Spanish Speakers
3 Semester Credit Hours (3 Lecture Hours)
This course addresses cultural issues in Spanish-speakers such as concept of family, authority and social organization, communication method, thought, formality of address and spirituality. This course will be offered both as an online course and a study abroad experience. Students who have an opportunity to travel may take this course when it is offered in a Spanish-speaking country.

CNEP 5330 Professional and Technical Spanish
3 Semester Credit Hours (3 Lecture Hours)
This on-line course is an orientation to counseling clients in Spanish. Students will become familiar with terms to use to facilitate a session in Spanish. Professional counseling concepts include mental health, counseling techniques, communication skills, understanding and problem solving, goal setting, and consultation with other professionals.

CNEP 5331 Strategies and Interventions for Spanish-Speaking Clients
3 Semester Credit Hours (3 Lecture Hours)
This online course provides training in mental health strategies and interventions in counseling. The focus is on theories and techniques appropriate with Spanish-speaking clients.

CNEP 5332 Spanish-Speaking Internship I
3 Semester Credit Hours (3 Lecture Hours)
The Internship I experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision.

CNEP 5333 Spanish-Speaking Internship II
3 Semester Credit Hours (3 Lecture Hours)
The Internship II experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision. Students who have an opportunity to travel complete Internship II clinical work in a study abroad program in a Spanish-speaking country.

CNEP 5354 Developmental Issues in Human Personality and Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to address both historical and contemporary research in personality theory from a lifespan developmental perspective. Topics addressed in this course include normative patterns of personality development and adjustment; Major factors and conditions which are related to successful human adaptations including adult-child relations, personality defense mechanisms, developmental stages and abnormal behavior in addition to theories of personality. Social and Cultural foundations of personality development will also be covered. Students will be expected to demonstrate understanding of personality development across the lifespan as well as social/cultural influences on personality development through successful completion of various assignments which may include case studies, presentations, and examinations. There are no prerequisites for this course.

CNEP 5361 Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with both a theoretical and an experiential approach to group counseling dynamics and processes including therapeutic factors and group effectiveness, characteristics and functions of group leaders, recruiting, screening, and selecting group members, group settings and types of groups, ethical and cultural strategies for designing and facilitating groups, and a minimum of 10 clock hours of participation in a small group activity. There are no prerequisites for this course.

CNEP 5365 Stress Management and Integrated Wellness
3 Semester Credit Hours (3 Lecture Hours)
This is a course designed to teach practical skills for managing stress and integrating wellness practices into the daily lifestyle. Students will be exposed to current knowledge base and experiential best practices for identifying stressors in their environment and developing strategies for their personal and client use.
CNEP 5371  Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with a basic knowledge for testing and measurement in the counseling field. Topics addressed in this course include historical perspectives concerning the nature and meaning of assessment and testing in counseling, methods of effectively preparing for and conducting initial assessment meetings, use of assessments for diagnostic and intervention planning purposes, basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, group and individual assessments, validity and reliability in assessments, the use of assessments relevant to academic/educational, career, personal, and social development, use of environmental assessments and systematic behavioral observations, use of symptom checklists and personality and psychological testing, use of assessment results to diagnose developmental, behavioral, and mental disorders, and ethical and culturally relevant strategies for selecting, administering, and interpreting assessment and test results, and program evaluation and the use of findings to effect program modifications. Covers functions of testing in education; educational and social issues related to testing and use of test results; theoretical aspects of psychometrics; selection of commercial standardized tests; and common commercial standardized tests. Students will be expected to demonstrate knowledge of the foundation and history of psychometric assessment, knowledge of the psychometric properties of assessments, including validity, reliability and norming groups, knowledge of how to select, administer, interpret, and report the results of psychometric assessments, how to conduct a biopsychosocial assessment, and how to conduct a program evaluation and interpret the results. There are no prerequisites for this course.

CNEP 5374  Individual intelligence Testing
3 Semester Credit Hours (3 Lecture Hours)
Testing, scoring, and interpretation procedures for the Wechsler scales.

CNEP 5375  Clinical Mental Health Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to be a competency-based course with a primary focus on the practice and acquisition of specific techniques and interview skills. Topics addressed in this course include essential interviewing and decision-making skills, evidence-supported counseling strategies, culturally responsive modalities for initiating, maintaining, and terminating counseling, treatment planning, and strategies for promoting wellness and self-care. The student will demonstrate the ability to implement these competencies through discussion, conceptualization assignments, and experiential activities. 
Prerequisite: CNEP 5384.

CNEP 5381  Psychodiagnosis and Treatment Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to cover types of human distress, as described in the Diagnostic and Statistical Manual of Mental Disorders, including the development of tools for the understanding and critical appraisal of abnormal human behavior across the life-span. Strategies and techniques for working with clients in a variety of settings are considered. The primary topic in this course is the diagnostic process, including differential diagnosis and the use of current diagnostic classification systems. Students will be expected to demonstrate understanding of the diagnostic process and treatment planning via successful completion of tasks in multiple case studies, mid-term examination, and final evaluation.
Prerequisite: (CNEP 5304 and 5308).

CNEP 5384  The Counseling Process
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to teach students how to use beginning counseling skills. Topics addressed in this course include counselor characteristics and behaviors that influence the counseling process, essential interviewing, counseling, and case conceptualization skills, and self-care strategies appropriate to the counselor role. Students will be expected to demonstrate the ability to understand and use basic micro-skills in counseling practice, and demonstrate knowledge of counselor characteristics and behaviors that can affect the counseling process. They will also be expected to demonstrate the practice and understanding of self-care via intentional personal wellness activities.

CNEP 5385  Bridge Supervision
1 Semester Credit Hour
Supervised counseling experience during breaks between academic semesters. Counseling setting must be the same as the practicum/internship setting either the previous or following semester. The course, while not required for the degree, is required for all students who obtain hours towards the practicum/internship requirements during between-semester breaks.

CNEP 5390  Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contemporary issues in Counseling/Educational Psychology; topics vary with professional identification of participants. May be repeated when topics vary.

CNEP 5397  Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide 100 clock hours of supervised counseling experiences, including 40 hours of direct service with clients. Clinical setting must be approved by the Clinical Coordinator. The semester prior to enrollment the student must complete the practicum application process. Students will be expected to demonstrate satisfactory counseling skills as well as a professional counseling identity as evidenced by a grade of B or above in the course and satisfactory ratings on professional behavior ratings. Students who earn a grade below C will be required to re-take the course.
Prerequisite: CNEP 5381 and (CNEP 5384 and 5327).

CNEP 5399  Specialized internship Experience
3 Semester Credit Hours
A supervised field experience in counseling and counseling-related activities. An internship application must be completed and submitted to the instructor.

CNEP 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

CNEP 5698  Internship
3 Semester Credit Hours
This course, to be taken twice (6 hours), is designed to provide 600 clock hours of supervised counseling experiences, including 240 hours of direct service with clients. The clinical setting must be approved and appropriate to the student’s emphasis. Students will be expected to provide direct counseling services appropriate to their program specialties and to fulfill additional roles common to the role of a counselor in their specialty as evidenced by evaluations from supervisors.
Prerequisite: (CNEP 5397, 5312, 5320, 5316 and 5375).
CNEP 6305 Advanced Theories in Individual and Group Counseling  
3 Semester Credit Hours (3 Lecture Hours)  
Historical, theoretical, legal, ethical, and philosophical foundations in counseling with an emphasis on counseling and cultural issues, change theory, systems, and theory efficacy. Overview of major counseling theories includes identifying one's personal theory. Projects include evaluation of theories with multicultural populations.

CNEP 6310 Advanced Counseling Strategies  
3 Semester Credit Hours (3 Lecture Hours)  
In-depth study of various counseling strategies appropriate to the development levels of elementary, middle, and secondary school students, adults, couples, and families. Includes case conceptualization and efficacy of theories and treatment strategies of National and International crises, disaster, and other trauma-causing events, short term and intermediate intervention strategies and advocacy methods with at-risk and multicultural populations.

CNEP 6315 Professional, Legal, and Ethical Issues  
3 Semester Credit Hours (3 Lecture Hours)  
Examination of professional, legal, ethical, topical, and political issues in the counseling profession. Includes focus on counselor's identity, relevant cultural concerns, and the counselor educators, role and responsibilities. Course material includes research writing projects and an Individual Development Plan (IDP).

CNEP 6316 Research, Writing and Publishing in a Multicultural Society  
3 Semester Credit Hours (3 Lecture Hours)  
Study of the professional standards of writing, publishing and presenting proposals in a diverse society. Topics include a review of contemporary research on diverse populations. Special emphasis is placed on student gaining knowledge and skill for conducting and communicating the results of scholarly inquiry through processes of editing, consultation and peer review processes.

CNEP 6320 Advanced Appraisal Techniques and Psychometrics  
3 Semester Credit Hours (3 Lecture Hours)  
This class focuses on facilitating student skills in development, planning, implementation and evaluation of assessment and testing programs. Topics include critical evaluation of validity and reliability of standardized and non-standardized assessments. Emphasis is placed on design parameters, specific assessment measures, and their use in program evaluation.

CNEP 6335 Consultation Theory and Professional Advocacy  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to identify effective consultation approaches/styless and advocacy action planning. Students will acquire skills in assessing needs of counselors in training, developing programs and techniques for change, and program evaluation.

CNEP 6340 Diversity in Counselor Education  
3 Semester Credit Hours (3 Lecture Hours)  
(3 SCH). This course provides students with the awareness, knowledge, and skills required of counselors, counselor educators, and counseling supervisors to be effective leaders and advocates in an increasingly pluralistic and diverse society. The course will provide students opportunities to develop multicultural competencies by critically examining how issues related to social justice and diversity impact various therapeutic, instructional, consultative, and supervisory relationships.

CNEP 6350 Advanced Clinical Supervision  
3 Semester Credit Hours (3 Lecture Hours)  
Study of counselor training and supervision with an exploration of the major theoretical/conceptual models and an overview of current trends and practices. Course includes didactic and applied experiences. Legal, ethical and multicultural issues and challenges in diverse settings are addressed, in addition to the purposes of clinical supervision and the role of the supervisor.  
Prerequisite: CNEP 6305 and 6310.

CNEP 6354 Counselor Education Pedagogy  
3 Semester Credit Hours (3 Lecture Hours)  
(3 SCH). This class is designed to facilitate development of students' knowledge, skills, and dispositions through an in-depth review of evidence-based practices associated with effective teaching practices used in counselor training thereby preparing students for careers in counselor education.

CNEP 6355 Leadership and Advocacy in Counselor Education  
3 Semester Credit Hours (3 Lecture Hours)  
This course is an exploration of issues of leadership in counselor education within a diverse society. Focus on problem identification, analysis, supervision, and problem-solving approaches within a multicultural framework. Emphasis is placed on leadership roles, theories, and skills.

CNEP 6360 Research Design and Statistics  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed as a doctoral level survey of Research Design and Statistics. The major focus will involve an examination of the theoretical assumptions underlying various research designs and the use of inferential statistics. Special emphasis will be placed on the selection of appropriate design for specific applications in counseling and educational contexts. The course will involve both theoretical exploration and instruction on the use of computer-based statistical tools (SPSS).

CNEP 6365 Advanced Research & Design in Wellness and Stress Management Practices  
3 Semester Credit Hours (3 Lecture Hours)  
Advanced skill development in designing programs and working with clients experiencing stress related disorders that impact the overall quality of their lives. A special emphasis will be placed implementation of design strategies for development and evaluating programs for improving performance and health.

CNEP 6370 Quantitative Research Methods I  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on expanding each student's knowledge of research design and statistical analysis beyond CNEP 6360 and EDLD 6392. Specific topics will include general linear model approaches to analysis of variance and regression analysis. Students will utilize SPSS to complete regularly assigned problems in order to demonstrate their competence. In addition, a special emphasis will be placed on the development of advanced quantitative skills needed to evaluate programs and student processes within a counselor educator model.  
Prerequisite: CNEP 6360.
CNEP 6372 Quantitative Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
This research methodology course is designed to provide doctoral students with application experience in quantitative, qualitative and mixed-method data analytic procedures. Students will address promises and pitfalls using advanced univariate, multivariate, and non-parametric techniques introduced in CNEP 6360 and CNEP 6370. Students will act as consultants and evaluators on projects developed by student research teams in the department. This course is designed to help students address data analytic applications relevant to professional consulting, clinical and counseling practice as well as contexts involving program evaluation in a wide range of professional settings.
Prerequisite: CNEP 6320, 6360 and 6370.

CNEP 6384 Qualitative Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
This course is experientially based on the philosophy, design, and practice of qualitative research. It is understood that participants have a solid background in methods (as defined by the positivist and post-positivist tradition) and statistics. Students will situate qualitative inquiry/research in their philosophical, theoretical, and historical situations, learn methods of qualitative design, and develop a capacity to collect, analyze, and interpret qualitative empirical materials.

CNEP 6385 Qualitative Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
This course provides learners with advanced knowledge about and practice with specific qualitative designs commonly used in counseling research. It is understood that participants have a solid background in research methods generally (as defined by the positive and post-positivist tradition) as well as introductory understanding of qualitative methods specifically. Learners will deepen their understanding of general qualitative methods (e.g., phenomenology) and will focus attention on one or more theory-driven approaches (e.g., descriptive phenomenology, hermeneutic phenomenology, specific grounded theory approaches), with particular attention to consistency of method approach including data analysis.

CNEP 6390 Professional Seminar.
3 Semester Credit Hours (6 Lecture Hours)
Special topics is an advanced study in an identified area of academic interest. May be repeated for credit when topics vary. Covers the knowledge base of the counseling profession.

CNEP 6395 Doctoral Practicum
3 Semester Credit Hours (3 Lecture Hours)
Provides/demonstrates professional counseling expertise with effective application of multiple counseling theories. Demonstrates case conceptualization and effective intervention across diverse populations and settings. The experience includes a minimum of 100 clock hours. Students will experience both the direct delivery of services, and weekly individual and group supervision. Opportunities for the evaluation of student’ counseling skills will be provided.

CNEP 6396 Doctoral internship
3-6 Semester Credit Hours (3-6 Lecture Hours)
Provides an intensive, supervised professional experience in approved counseling and counselor education settings. Two internship courses are required. Each internship consists of a total of 300 clock hours of experience. Students will plan and participate in a variety of experiences relevant to the work of counselor education, which may include supervision, teaching, research, direct counseling, and leadership, all under supervision.

CNEP 6397 Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the application of research skills and inquiry methods. Students will be exposed to various methodological approaches and the components of scientific inquiry. Attention also will be given to ethical and legal issues in research.

CNEP 6398 Dissertation in Progress
1-6 Semester Credit Hours (1-6 Lecture Hours)
Completion of an approved research project under the supervision of a dissertation advisor. (Nine semester hour minimum.)

CNEP 6696 Directed individual Study
3-6 Semester Credit Hours (6 Lecture Hours)
May be repeated when topics vary.

Curriculum and Instruction, PhD
Program Description
(Curriculum Studies, Instructional Design and Educational Technology, Kinesiology, Literacy Studies, and Special Education)
The doctorate in Curriculum and Instruction is a progressive and evidence-based program that offers students the choice of five emphases: Curriculum Studies, Instructional Design and Educational Technology, Kinesiology, Literacy Studies, and Special Education. The 60-semester credit-hour program prepares graduates for leadership roles as professors, as researchers, and as administrators of educational programs in Texas and the nation. Required are 21 semester credit hours of core curriculum and instruction courses, 18 semester credit hours in research courses, 15 semester credit hours in chosen emphasis, and 6 semester credit hours allocated for the completion of the dissertation.

Student Learning Outcomes
Students will:
• demonstrate a command of the field of your area of expertise.
• demonstrate the ability to conduct original research.
• demonstrate a command of the field of Curriculum and Instruction.

For Additional Information
Website:
https://gradcollege.tamucc.edu/degrees/education/curriculum_and_instruction_phd.html

Campus Address:
Early Childhood Development Center, Room 219J
Phone (361-825-2417)
Faye.Bruun@tamucc.edu

Mailing Address:
Department of Curriculum, Instruction, and Learning Sciences
College of Education and Human Development
6300 Ocean Drive, Unit 5834
Corpus Christi, Texas 78412-5384

Admission Requirements
Applicants must meet all conditions for graduate admission to the College of Education and Human Development, including a minimum
grade point average of 3.00, as specified earlier in this catalog. Additional requirements for admission to the program are described below.

Admission requires approval by a Curriculum and Instruction admission committee. Criteria for admission include the following:

1. a Graduate Record Examination score (GRE) or a Miller’s Analogy Test (MAT) (taken within the last five years),
2. a minimum of three years teaching experience or related experience.
3. four professional or educational letters of recommendation submitted in Online Ph.D. Curriculum & Instruction Reference Form, and
4. official transcripts of all undergraduate and graduate coursework indicating completion of a master’s degree in a relevant field from a regionally accredited University.

After an applicant’s required materials are received, an applicant will be invited for personal interviews, presentations, and a writing exercise. An admission committee will consider all qualifications, including professional and personal qualifications, in making admission decisions. The committee may admit persons with lower levels of the above indicators of academic history if

1. professional and personal qualifications are unusually strong and
2. the student demonstrates a high degree of proficiency on a writing sample administered and scored by the admission committee.

For the Literacy Studies emphasis, individuals who do not have prior graduate work in Reading/Literacy will have course requirements in addition to the 60-hour requirement. If accepted into the program, these students will be required to take up to 15 additional hours besides those already required for the Literacy Studies emphasis in the doctoral program.

Program Requirements

The Doctor of Philosophy Degree in Curriculum and Instruction is awarded in recognition of the attainment of independent and comprehensive scholarship in the field. To qualify for the degree, the student must meet the following specific requirements.

1. **Residence:** Three consecutive sessions (summer, fall, spring; fall, spring, summer; etc.) of 6 semester hours enrollment are required, to be completed during the course of the program. The ten year rule on recency of credit will apply.

2. **Coursework:** Sixty semester hours of coursework are required, inclusive of dissertation courses. With departmental approval, up to 12 semester hours for the degree plan may be transferred from another regionally accredited University. The transfer credits must be post master’s-level graduate coursework, must be less than ten years old at the time of conferment of the Texas A&M University-Corpus Christi degree, and may not have been included on degree plans for any other degree. The student must have been enrolled as a terminal degree student when coursework was completed. Likewise, up to one-fourth of the credits for the degree plan may be transferred from post master’s-level work taken at Texas A&M University-Corpus Christi. The program faculty and the Graduate Dean must approve the transfer credits. The degree requires the following:
   • 21 hours of core curriculum & instruction
   • 18 hours in research tools
   • Choose an emphasis (Minimum of 15 hours to be chosen with faculty advisor)
   • Curriculum Studies
   • Instructional Design and Educational Technology
   • Kinesiology
   • Literacy Studies
   • Special Education
   • A minimum of 6 hours of Dissertation in Progress (repeated as necessary)

3. **Candidacy/Comprehensive Examinations:** Comprehensive examinations will be scheduled at such time as the student’s advisor judges that the student is ready, but not before the student has completed all the required core curriculum and instruction emphases, and research tools courses. Admission to candidacy for the degree requires passing written comprehensive examination and when judged appropriate by program faculty, an oral examination.

4. **Dissertation and Final Examination:** The dissertation is developed under the supervision of a dissertation advisor, who serves as chair of the dissertation committee. The committee is composed of at least four members including the chair. There will be a final oral examination that will focus on, but is not limited to, the dissertation work.

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<th>Code</th>
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<tbody>
<tr>
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<td>Philosophy of Education</td>
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<td>EDCI 6324</td>
<td>Curriculum Theory</td>
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<td>ISSUES IN CURRICULUM AND INSTRUCTION</td>
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**Research Tools**

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**Emphasis**

Select one of the following Emphasis: 15

**Curriculum Emphasis**

15 SCH - Required courses to be chosen in consultation with faculty advisor.

**Instructional Design and Educational Technology Emphasis**

15 SCH - Required courses to be chosen in consultation with faculty advisor.

**Kinesiology Emphasis**

15 SCH - Required courses to be chosen in consultation with faculty advisor.

**Literacy Emphasis**

15 SCH - Required courses to be chosen in consultation with faculty advisor.

**Special Education Emphasis**

15 SCH - Required courses to be chosen in consultation with faculty advisor.

**Dissertation**
Courses

Educational Curriculum & Instruction Courses

EDCI 5308 STRATEGIES FOR TEACH SEC SCHOO
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES FOR TEACHING IN THE SECONDARY SCHOOL. A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial certification.

EDCI 5315 METHODS OF TEACHING MATHEMATIC
3 Semester Credit Hours (3 Lecture Hours)
S. A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDCI 5316 METHODS OF TEACHING SOC STUDIE
3 Semester Credit Hours (3 Lecture Hours)
METHODS OF TEACHING SOCIAL STUDIES. A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences.

EDCI 5317 METHODS OF TEACHING SCIENCE
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students will prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course.

EDCI 5320 Mathematics through Communication
3 Semester Credit Hours (3 Lecture Hours)
A course for elementary and middle school teachers who are trying to improve mathematics teaching and understanding through the development of communication skills and their use in the mathematics classroom.

EDCI 5321 Mathematics through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers who wish to investigate the connection between children's literature and mathematics for the purpose of improving mathematics instruction. Teachers will work through activities based upon children's books, and develop and share similar activities based upon children's books of their choosing.

EDCI 5322 Science through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for elementary and middle school teachers who wish to investigate the connections between children's literature and science for the purpose of improving their science instruction. Teachers will participate in activities based on children's trade books that have scientific themes, and develop and share similar experiences.

EDCI 5323 Interactive and Multimedia Approaches in Mathematics
3 Semester Credit Hours (3 Lecture Hours)
This is a course for K-12 teachers who wish to investigate the use of motivational and reinforcement activities as a part of the instructional program within mathematics. Emphases will be placed on the purposes for using such activities in the mathematics program, the various types of such activities that are available to the mathematics teacher, the sources for such activities in mathematics, and the need for having a variety of such activities within the mathematics program.

EDCI 5324 DIAGNOSIS AND REMEDIATION OF MATHEMATICAL ERRORS
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers of K-12 who teach mathematics within the levels of kindergarten through algebra and wish to investigate mathematical errors for the purpose of diagnosing the cause and planning instruction for the purpose of remediation. Participating teachers will work through activities representing common mathematical errors made by students, maintain portfolios of samples of student errors, diagnose student errors, and learn teaching strategies for remediation of the problems that students are having.

EDCI 5325 Applied Connections: Mathematics, Science, and Communications
3 Semester Credit Hours (3 Lecture Hours)
The emphasis in this course is on interdisciplinary connections among mathematics, science, and communication and also on the application of subject-area knowledge to the world of work. Attention goes to relevant research, particularly research addressing effective innovations in teaching and learning. Networks will be created to support continued learning.

EDCI 5327 STRAT OF SUCCESS FOR THE BEG T
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER. This course is a field-based course in which beginning teachers are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5397. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5330 Teaching Environmental Sciences: I
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the elementary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5331 Teaching Environmental Sciences: II
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the secondary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.
EDCI 5335  Methods of Teaching Mathematics: Grades 1?5
3 Semester Credit Hours (3 Lecture Hours)
A course designed to emphasize methods of teaching the essential elements in mathematics for Grades 1?5. An emphasis will be placed on the use of concrete manipulatives so that learning is accomplished with understanding.

EDCI 5336  Methods of Teaching Mathematics: Grades 5?7
3 Semester Credit Hours (3 Lecture Hours)
Emphasis will be placed on modeling with concrete manipulatives, teaching for understanding, integrating mathematics into other areas of the curriculum, problem solving, diagnosis, and evaluation.

EDCI 5339  PROGRAMS FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Characteristics and methods of identification of the Gifted and Talented. Various programmatic models including campus and district will be examined. Testing instruments and the concepts of differentiated curriculum will be analyzed.

EDCI 5340  Instructional Techniques for Effective Teaching
3 Semester Credit Hours (3 Lecture Hours)
This course will emphasize research-based strategies for increasing student achievement, models of successful instruction to help teachers/administrators plan, and techniques for implementation of effective instructional techniques.

EDCI 5341  Learning Theory Related to the Gifted Child
3 Semester Credit Hours (3 Lecture Hours)
An examination of current learning theories in relation to the gifted and talented child. 
Prerequisite: EDCI 5339.

EDCI 5342  CURRICULUM DEVELOPMENT FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Learning experiences in scope and sequence development, development of unit plans and lesson plans, and material selection and evaluation. 
Prerequisite: EDCI 5339.

EDCI 5345  Visual Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Instructional materials’ design and development skills learned will be based on theoretical and research issues related to visual literacy.

EDCI 5350  Advanced School Problems
3 Semester Credit Hours (3 Lecture Hours)
Current issues in education; recent research bearing on teaching and organization of instructional programs in schools.

EDCI 5361  Educational Assessment
3 Semester Credit Hours (3 Lecture Hours)
This course will help educators to understand testing and performance assessment, and to effectively use assessment to support student learning ultimately building student success. The course prepares educators to use assessment as a tool to help develop all students in their classroom across the developmental span from Kindergarten through high school. Educators will learn how to prepare valid assessment instruments that contribute to effective instruction and student learning by developing proven, sound, high-quality assessments for use in the classroom.

EDCI 5362  Theoretical Bases for Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Reviewing and designing instructional programs; specific techniques for planning in various areas of the curriculum; concentration in area of student’s curricular specialty; specification of instructional objectives.

EDCI 5389  Curriculum and instruction Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This is designed as the culminating course in the interdisciplinary curriculum and instruction master’s degree. Covered in the class are: historical and current trends in research, the critical examination of selected research studies, and a self analysis of personal and professional interests and needs. This course calls for students to integrate and use information from previous graduate classes with information presented in this class to develop, implement, and defend an action-based research project. 
Prerequisite: EDFN 5301 and EDCI 5340.

EDCI 5390  Professional Seminar
3 Semester Credit Hours
This course addresses contemporary issues in education. It may repeated when topics vary.

EDCI 5393  INTERNSHIP I AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDCI 5306 or have completed EDCI 5306.

EDCI 5394  INTERNSHIP II AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.

EDCI 5395  Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions This course is taken during the second semester of the second year on a “Probationary Certificate.”
Prerequisite: EDCI 5393, 5394 and 5327.

EDCI 5397  PRACT 1 FOR THE BEGINNING TEAC
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM I FOR THE BEGINNING TEACHER This course is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5327. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5398  PRACT II AND SEMINAR FOR THE B
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM II AND SEMINAR FOR THE BEGINNING TEACHER Beginning teachers are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised classroom teaching. Enrollment is limited to certified teachers currently in teaching positions.
EDCI 5696  Directed individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

EDCI 5698  Practicum for Gifted Children
6 Semester Credit Hours (6 Lecture Hours)
This course involves a supervised experience with a variety of children classified as gifted. Students will plan and implement a program designed for gifted children.

Prerequisite: EDCI 5339.

EDCI 6301  Philosophy of Education
3 Semester Credit Hours (3 Lecture Hours)
Ontological and epistemological perspectives on leadership; historical conceptions of leadership as revealed in the works of Greek and Roman writers of the classical period and in the works of later European writers such as Machiavelli, Hobbes, Rousseau, Mill, and Weber.

EDCI 6303  ISSUES IN CURRICULUM AND INSTRUCTION
3 Semester Credit Hours (3 Lecture Hours)
This course will prepare the doctoral student in curriculum and instruction to understand, appreciate, and evaluate a variety of curricular strategies with attention paid to a continuum of philosophies and strategies in the area of curriculum development and the impact of those on instruction.

Prerequisite: EDCI 6301 or 6324.

EDCI 6324  Curriculum Theory
3 Semester Credit Hours (3 Lecture Hours)
An analysis of theoretical structures underlying curriculum development, implementation and evaluation.

EDCI 6335  CURRICULUM RESEARCH DESIGN
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the design of research studies, including experimental and quasi-experimental designs, other quantitatively-based designs, qualitatively-oriented designs, and mixed model designs.

Prerequisite: (EDLD 6392) and (EDLD 6333) and (EDLD 6384) and (EDLD 6385).

EDCI 6336  Culture, Language, and Cognition
3 Semester Credit Hours (3 Lecture Hours)
The focus is on cultural, linguistic, and pedagogical rationales for adapting curricula and materials to meet the needs of diverse students. By adopting various theoretical, methodological, and cultural frames of reference, course participants recognize capabilities in all learners.

EDCI 6356  Writing for Publications in Higher Education
3 Semester Credit Hours (3 Lecture Hours)
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

EDCI 6390  Special Topics in Curriculum
3 Semester Credit Hours (3 Lecture Hours)
This course addresses contemporary issues in education. Topics vary. It may be repeated when topics vary.

EDCI 6391  Historical Perspectives On Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Taking a historical perspective on the purposes and practices of schooling, this course covers major patterns in curriculum through the years in a national and global context. Also addressed are historiography and the history of educational research.

EDCI 6392  Critical Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
Attention goes to a set of philosophical positions and educational practices known as "critical pedagogy" and also to critiques and inquiries associated with this line of scholarship that address issues of difference and disadvantage. The course considers historical patterns as well as current manifestations in such areas as race, gender, and politics.

EDCI 6397  Seminar On Dissertation Research
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to assist students in writing a research proposal (introduction, review of literature, methods) that may become the basis for a doctoral dissertation.

Prerequisite: (EDCI 6335).

EDCI 6398  Dissertation in Progress
1-6 Semester Credit Hours
Doctoral candidates conduct an approved study under the supervision of a dissertation advisor and committee.

EDCI 6696  Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Educational Leadership Courses
EDLD 6301  Philosophy of Education
3 Semester Credit Hours (3 Lecture Hours)
Ontological and epistemological perspectives on leadership; historical conceptions of leadership as revealed in the works of Greek and Roman writers of the classical period and in the works of later European writers such as Machiavelli, Hobbes, Rousseau, Mill, and Weber.

EDLD 6302  Residency Seminar
3 Semester Credit Hours (3 Lecture Hours)
Current issues in educational leadership; national, state, and regional perspectives (taken during two consecutive semesters of academic year residency).

EDLD 6303  The Politics of Education
3 Semester Credit Hours (3 Lecture Hours)
Educational functioning from a political systems perspective; internal and external political forces influencing organizational effectiveness; shaping of educational policy; functional means of attaining and utilizing political power.

EDLD 6304  COMMUNITY COLLEGE AND UNIVERSITY ADMINISTRATION
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to examine the history and development of American systems of higher education and to study the ways in which community colleges and universities complement each other on the educational scene. Organization, funding, remedial education, and relations with the wider community will also be discussed.

EDLD 6305  STUDENT AFFAIRS IN COLLEGES AND UNIVERSITIES
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with knowledge of the field of student affairs, its role and function in college student development, and its fit with the academic program. This course is also intended to provide students with an understanding of the purposes and historical development of student personnel programs, the administrative structure of student affairs division in two and four year colleges, and the institutional units that fulfill the student services function.
EDLD 6306 Higher Education in a Democratic Society
3 Semester Credit Hours (3 Lecture Hours)
This course will examine contemporary issues in American society in the context of higher education. Students will study and debate in detail how two and four year colleges and universities respond to societal issues. The course will also examine the ways in which institutions of higher education are influenced by social issues and how they in turn influence society.

EDLD 6307 Higher Education Finance
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with knowledge of higher education funding in Texas, not only at the State level but also at the institutional level. The material will also provide students with a background of the historical, philosophical, and political forces that have contributed to the current funding systems in Texas and throughout the United States. Course material will also include trends in higher education funding on a state, national, and international scope.

EDLD 6308 Higher Education and the Law
3 Semester Credit Hours (3 Lecture Hours)
Study of basic legal issues as they relate to governance in higher education; including legal issues relating to trustees, administrators, staff, faculty and students; legal relationships with local, state and federal government. The course also addresses legal issues relating to accrediting, athletic and faculty associations. Legal relationships with the business/industrial community are also covered.

EDLD 6309 PRACTICUM HIGHER EDUCATION: PROCESS AND PRACTICE
3 Semester Credit Hours (3 Lecture Hours)
NCD.

EDLD 6310 THE EDUCATION AND TRAINING OF ADULTS
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to introduce adult education as both a field of practice and a field of study to professionals working in universities, community colleges, businesses, government, social service agencies, and other venues concerned with the education and training of adults. Exemplary practices in adult education and training reflect theoretic constructs undergirding the field; therefore, EDLD 6310 is a theory-into-practice class.

EDLD 6311 Contemporary Theories of Educational Leadership
3 Semester Credit Hours (3 Lecture Hours)
Assumptions of the major schools of thought regarding leadership; findings from research conducted pursuant to trait theory, behaviorist theory, and situational/contingency models; conceptions of leadership effectiveness; implications for leadership in educational organizations.

EDLD 6312 Clinical Leadership Laboratory
3 Semester Credit Hours (3 Lecture Hours)
Students will undergo assessment of personal leadership skills through assessment center methodologies. Abilities assessed will include decision-making, group participation, interpersonal communication, and presentation skills.

EDLD 6313 Policy Development and Decision-making
3 Semester Credit Hours (3 Lecture Hours)
Study of policy conceptualization; development and implementation integrated with decision-making processes; ethical and moral responsibility of educational leadership.

EDLD 6314 Professionals in Educational Organizations
3 Semester Credit Hours (3 Lecture Hours)
The nature of professionalism in education; points of conflict between bureaucratic and professional norms; accommodations to conflict; integrating professional norms with organizational requirements; organizational leadership of professionals; the character of professional associations in education.

EDLD 6315 Multicultural Analysis: Concepts for Educational Leaders
3 Semester Credit Hours (3 Lecture Hours)
Study of multicultural relations in American society and an exploration of critical problems confronting educational systems in general and educational leaders in particular.

EDLD 6331 Educational innovations
3 Semester Credit Hours (3 Lecture Hours)
An examination of the basic elements of successful school renewal programs with emphasis on systematic approaches to educational innovation and the process of change; studies of successful innovative programs.

EDLD 6333 Applied Statistics 1
3 Semester Credit Hours (3 Lecture Hours)
This is a course in univariate statistics, which includes the use of Statistical Package for the Social Sciences (SPSS) with exercises related to various descriptive and inferential statistical techniques.

EDLD 6335 Quantitative Research Methods
3 Semester Credit Hours (3 Lecture Hours)
The course is designed to provide the student with the knowledge and skills needed to read, analyze and synthesize educational research, and to give the student experience in the development and conduct of a research project. Course content includes instruction in preparation of a research proposal, identification of a research problem, sampling techniques, research design, instrumentation, data collection, and data analysis.

Prerequisite: EDLD 6333, 6392 and 6384.

EDLD 6342 Community Leadership Development
3 Semester Credit Hours (3 Lecture Hours)
This course develops collaborative leadership skills related to initiating and implementing school and community partnerships. A special focus is the enhancement of critical literacy skills—the capacity to read and interpret events within the socio-political context of community-embedded educational leadership.

EDLD 6348 Qualitative Research Methods
3 Semester Credit Hours (3 Lecture Hours)
This course is based on reviews of the theoretical and methodological approaches to qualitative research. Students will situate qualitative inquiry/research in their philosophical, theoretical, and historical situations, learn methods of qualitative design, and develop a preliminary capacity to collect, analyze, and interpret qualitative empirical materials.

EDLD 6385 Advanced Data Analysis in Qualitative Methods
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for doctoral students who want to pursue their interests in qualitative methods and who want to use these methods in their dissertation. Students would need to have a qualitative research methods course completed in order to take this class. Students will learn to use various qualitative data analysis methods using multiple data sources.

Prerequisite: EDLD 6384.
EDLD 6390  Special Topics in Educational Leadership
3 Semester Credit Hours
Selected topics in an identified area of Educational Leadership; advanced investigations of selected topics and problems dealing with curriculum theory, program design, and experimental formulations. May be repeated for credit when topics vary.

EDLD 6392  Applied Statistics 2
3 Semester Credit Hours (3 Lecture Hours)
The course in advanced statistical procedures is a continuation of EDLD 6333. Special emphasis is placed on analysis of variance (ANOVA) techniques such as one-way and factorial ANOVA, analysis of covariance (ANCOVA), repeated measures ANOVA, and multivariate analysis of variance (MANOVA), as well as multiple regression analysis, logistic regression analysis, and discriminant analysis. Also included are selected nonparametric statistical techniques. The course includes hands-on experiences in the use of Statistical Package for the Social Sciences (SPSS) with exercises related to the topics covered.
Prerequisite: EDLD 6333.

EDLD 6395  Analysis and Reporting of Research Data
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for doctoral students who want to develop their data analysis skills for their research projects in order to report findings for publication purposes and dissertations. Students will learn how to select appropriate data analysis methods, analyze data, and learn how to academically report research findings.

EDLD 6396  DIRECTED INDEPENDENT STUDY
3 Semester Credit Hours
NCD.

EDLD 6397  Dissertation Research
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to assist the student in writing a three-chapter (introduction, review of literature, methods) research proposal that may become the basis for a doctoral dissertation.
Prerequisite: EDLD 6333, 6384, 6335 and 6392.

EDLD 6398  Dissertation
1-6 Semester Credit Hours (1-6 Lecture Hours)
Completion of an approved field study under the supervision of a dissertation adviser.

EDLD 6609  Practicum in Higher Education: Processes and Practices
6 Semester Credit Hours (6 Lecture Hours)
This course will examine the functions and practices typically found in institutions of higher education. Students will examine these functions and practices in the context of a complex organization and develop an understanding of how they contribute to the mission of the institution. Students will also complete an internship experience in a University or community college office, not their own.

EDLD 6696  Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Educational Leadership, EdD

Program Description
The Doctor of Education Degree (Ed.D.) in Educational Leadership is a scholar-practitioner degree designed for leaders on all educational levels. In support of institutional and college mission statements, the educational leadership program seeks to mediate formal knowledge and theory through disciplined inquiry and professional practice. It is expected that graduates of the program use scholarly inquiry and practice to guide decisions on all levels of educational activity.

The program seeks to build scholarly capacity in our students, allowing them to investigate and deal with social issues of equity and democracy in their professional settings. As a scholar-practitioner program, faculty promote and maintain the importance of the rigor, research, and data driven decisions for our students, which is reflective of local, regional, state, national, and global concerns. The Ed.D. in Educational Leadership includes a research core and dissertation requirement to address the centrality of data for one's job, career, and advancement of education. The educational leadership program seeks to prepare scholar-practitioners through a combination of academic endeavors, professional experience, and prior knowledge as a basis for effective change.

Student Learning Outcomes
At the completion of the program, students should be able to demonstrate
- Exhibit aptitude of educational leadership principles;
- Apply knowledge of principals of educational leadership;
- Integrate research concepts, and;
- Demonstrate understanding of empirical research.

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/education/ed_leadership.html

Campus Address:
Faculty Center, Room 219
Phone: (361) 825-6034
gerri.maxwell@tamucc.edu

Mailing Address:
Department of Educational Leadership
Unit 5818
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5818

Admission Requirements
Admission requires approval of an Educational Leadership admissions committee. Criteria for admission include the following:
1. a Graduate Record Exam (GRE) score or Miller Analogies Test (MAT) score within the last five years
2. an undergraduate grade point average of 3.00 or above
3. a graduate grade point average of 3.00 or above
4. Official transcripts of all undergraduate and graduate coursework indicating the completing of a master's degree in a relevant field.

Selected applicants will be invited to campus for a personal interview with the Educational Leadership admissions committee and a writing exercise. The committee will consider relevant qualifications, including professional and personal qualifications, in making admission decisions. The committee may admit applicants with lower levels of the above indicators of academic history if
1. professional and personal qualifications are unusually strong and
2. a high degree of proficiency on the writing exercise.

Individuals denied admission three times are ineligible to reapply.

Program Requirements

The Doctor of Education Degree in Educational Leadership is awarded in recognition of the attainment of independent and comprehensive scholarship in the field. To qualify for the degree, the student must meet the following requirements:

1. **Residence:** Three consecutive terms of enrollment in six semester credit hours must be completed at some point in the program (e.g., summer, fall, spring). The time to completion must be in accordance with the standards set forth by the College of Graduate Studies.

2. **Coursework:** Sixty semester hours of coursework are required, inclusive of the dissertation courses. Up to one-fourth of the credits for the degree plan may be transferred from another regionally accredited college or University. The transfer credit must be post master’s level graduate coursework, must not exceed ten years at the time of conferral of the Texas A&M University-Corpus Christi degree, and may not have been applied to a degree conferred. Likewise, up to one-fourth of the credits for the degree plan may be transferred from post master’s level work taken at Texas A&M University-Corpus Christi. The transfer credits must be approved by the program faculty (normally the advisor). The degree requires the following:

**Educational Administration/Leadership Cognate**

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**Educational Administration/Leadership Cognate**

Select one of the following tracks: 1

**Higher Education Administration**

- EDLD 6304 COMMUNITY COLLEGE AND UNIVERSITY ADMINISTRATION
- EDLD 6305 STUDENT AFFAIRS IN COLLEGES AND UNIVERSITIES
- EDLD 6306 Higher Education in a Democratic Society
- EDLD 6307 Higher Education Finance
- EDLD 6308 Higher Education and the Law
- EDLD 6314 Professionals in Educational Organizations

**Superintendency**

- EDAD 6361 Current Topics: Focus on Law and Facilities
- EDAD 6367 Public School Finance
- EDAD 6368 School Public Relations
- EDAD 6369 The School Superintendency
- EDAD 6398 Practicum in the School Superintendency
- EDAD/EDLD selected with Faculty Advisor

**Principalship**

- EDAD 5304 Introduction to the Principalship
- EDAD 6363 PUBLIC SCHOOL LAW
- EDAD 6376 Supervision of Teaching
- EDAD 6377 Teacher Appraisal System
- EDAD 6378 Application of Administrative Concepts
- EDAD 6399 School Administration Practicum

**Electives**
Select 6 hours of 6000 level (if available) graduate courses with Faculty Advisor  6

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<thead>
<tr>
<th>Core Courses</th>
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<tr>
<td>EDLD 6303</td>
<td>The Politics of Education</td>
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<tr>
<td>EDLD 6311</td>
<td>Contemporary Theories of Educational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>EDLD 6312</td>
<td>Clinical Leadership Laboratory</td>
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<tr>
<td>EDLD 6313</td>
<td>Policy Development and Decision-making</td>
<td>3</td>
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<td>EDLD 6331</td>
<td>Educational innovations</td>
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<td>EDLD 6342</td>
<td>Community Leadership Development</td>
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<td>EDLD 6333</td>
<td>Applied Statistics 1</td>
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<td>EDLD 6335</td>
<td>Quantitative Research Methods</td>
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<tr>
<td>EDLD 6384</td>
<td>Qualitative Research Methods</td>
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<tr>
<td>EDLD 6385</td>
<td>Advanced Data Analysis in Qualitative Methods</td>
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<tr>
<td>or EDLD 6392</td>
<td>Applied Statistics 2</td>
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<td>EDLD 6397</td>
<td>Dissertation Research</td>
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<td>EDLD 6398</td>
<td>Dissertation</td>
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1  Course selection to be decided upon with a Faculty Advisor if career path does not align with one of the tracks.

*  Blended offering

### Athletic Training, MS

**Accreditation**

The Department of Kinesiology & Military Science offers a program leading to the Master of Science degree in Athletic Training. The Athletic Training Program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE), 2001 K Street NW, 3rd Floor North, Washington, DC 20006.

**Mission Statement**

The Texas A&M University-Corpus Christi Athletic Training Program is devoted to excellence in instruction, research, and service. The Athletic Training Program provides a challenging, comprehensive and student-centered learning environment preparing students to excel at the professional level as a productive and engaged athletic trainer. The program incorporates the values of a supportive academic and clinical community, which promotes professional leadership, and ethical conduct through an abundance of active learning opportunities. Students are prepared for employment in high schools, colleges, professional sports, medical clinics, advanced scientific study and for successful collaboration with other allied health practitioners and in diverse patient populations.

**Program Description**

The Athletic Training Program is a selective and competitive admissions program. This graduate program is nationally accredited at the graduate level by the Commission on Accreditation of Athletic Training Education (CAATE). The AT Program at Texas A&M University-Corpus Christi is a two-year, 57 credit hour program consisting of formal classroom instruction and a wide variety of hands-on experiences. This includes clinical experience at the institution's NCA Division I intercollegiate sports teams as well as several other activity organizations such as cheer, dance, ROTC and the campus recreation center. In addition to on-campus experiences, students get hands-on clinical experience at affiliate sites including physical therapy clinics, orthopedic clinics, family practice clinics, and local high schools. Upon completing the degree program, students will have met the CAATE educational requirements and are eligible to sit for the Board of Certification (BOC) national examination to practice Athletic Training. Students would also be eligible for Texas Licensure for Athletic Training, or other state licensure programs outside of Texas.

Students will be held to the standards provided by the CAATE. New requirements/standards from CAATE may result in programmatic changes that will not be reflected in the current catalog. All updates will be posted on the website and in the student handbook and will be reflected in the catalog as soon as possible. The AT Program will do their best to implement these changes in a timely fashion in the least disruptive method possible for students.

**Student Learning Outcomes**

Graduates of the Athletic Training Program will:

- Apply appropriate preventative techniques, bracing, or taping to reduce the frequency or severity of athletic injuries.
- Perform a clinical evaluation of an athletic injury, formulate a clinical impression of the diagnosis, and make appropriate referral to physicians or other healthcare professionals as needed to assist the patient.
• Provide immediate care to athletic injuries, including the use of standard emergency procedures.
• Administer a therapeutic treatment, rehabilitation and reconditioning program in order to facilitate the recovery, function, and performance of the patient
• Establish and manage policies and procedures for the delivery of healthcare services while following accepted guidelines to promote safe participation, timely care, and legal compliance.

Academic Standards – Progression, Retention, & Dismissal
Students will progress through the Athletic Training curriculum in a cohort model. Courses are designed in a specific sequence and students are required to progress through the designed curriculum with specific requirements. Please see the course syllabi for individual course requirements. Please see the MSAT Handbook posted on the MSAT Program website regarding programmatic progression, retention, and dismissal policies (https://gradcollege.tamucc.edu/degrees/education/athletic_training.html).

All students must meet the ethical and professional guidelines set forth by the program. Students who violate the ethical or professional standards will be dismissed from the program. Please see the MS in AT Handbook.

Students pursuing a Master of Science Degree in Athletic Training must maintain a (A&M Corpus Christi) cumulative graduate GPA of 3.0 or better. If a student’s cumulative GPA is less than a 3.0, the student will be dismissed from the AT Program.

Students can earn a maximum of two (2) C’s to be eligible to remain in good standing and/or graduate from the AT Program. If a student earns more than two (2) C’s at any time during the program, the student will be dismissed from the AT Program.

All requirements, including coursework at Texas A&M University—Corpus Christi, must be completed within seven (7) calendar years from the date of initial enrollment in coursework. No transfer credit will be accepted towards the Athletic Training degree.

Advising
Every effort has been made to assure the accuracy of the information in this catalog. Students are advised; however, that such information is subject to change without notice. Therefore, students should consult with appointed academic advisors each semester prior to registration. Students should be aware that courses are offered in a specific sequence in a cohort model.

Fitness to Practice
In addition to meeting or exceeding academic standards, students pursuing a Master of Science Degree in Athletic Training must meet fitness to practice standards that are assessed by faculty and/or preceptors throughout the program.

These standards include demonstration of physical skills, competencies, and assessments in their interaction with others as well as proficiencies for the CAATE competencies and standards as well as the requirements to practice as an Athletic Trainer in the State of Texas.

At regular intervals throughout the program, students will be evaluated regarding their clinical knowledge and professionalism by preceptors and/or faculty. Students who fail to demonstrate competency and/or professionalism may receive a program violation and/or may be asked to enter a remediation plan in order to remain in the program. If a remediation plan is developed, students must demonstrate satisfactory remediation prior to being allowed to continue towards graduation. Specific information concerning fitness to practice and codes in which students are expected to conform may be found in the MS in AT Handbook.

Experiential Learning
Students in the Master of Science in Athletic Training Program will participate in didactic and clinical educational experience. During the clinical educational experiences, students will to adhere to the NATA Code of Ethics. Students will be engaging with athletes within the community and should conduct themselves as an allied health care professional. Students will be evaluated on their clinical behavior and knowledge by preceptors. If a student receives unsatisfactory evaluations, the student will be placed on a mediation plan.

Admission Requirements
The Athletic Training Program is a selective and competitive admissions program due to CAATE accreditation standards. To be considered for admission to the Athletic Training Program, all applicants must:

1. Complete an application to the University for admission to graduate school and the MS Athletic Training Program for degree seeking student status. The Application should be made through https://www.applytexas.org. See the Admissions section of the catalog.
   a. Graduate requirements for the College of Education and Human Development are specified in the Graduate Policies and Regulations (p. 61) section of this catalog.
   b. International students must meet the criteria as determined by the College of Graduate Studies (International Students).
2. Additionally, during the Graduate Application students should be prepared to provide additional documentation per Program and accreditation requirements. Applicants are required to complete prerequisite courses. The applicant’s prerequisite GPA may be utilized to evaluate competitive admission. Please see the MSAT website for further details (https://gradcollege.tamucc.edu/degrees/education/athletic_training.html). Specific prerequisite courses are required.
3. Students who meet the required criteria will be considered for selection by the Athletic Training Program Admissions Committee. Qualified applicants will be granted an interview by the admissions committee.

The Admissions Committee will consider all professional and personal qualifications in determining applicants for formal admission to the program. The Athletic Training Program is competitive and only a limited number of students will be admitted each year. The number of students accepted will be determined by the number of faculty and space available to facilitate learning, and by the number of clinical preceptors available for adequate supervision. Students must demonstrate at least a 3.0 Overall Cumulative GPA at the time of application. Students may be admitted conditionally at the discretion of the admission selection committee. Individuals who are denied admission twice are ineligible to re-apply.
Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>SMED 5100</td>
<td>CPR and Basic Life Support ¹</td>
<td>2</td>
</tr>
<tr>
<td>SMED 5200</td>
<td>Taping, Bracing, and Preventative Care in Athletic Training</td>
<td>2</td>
</tr>
<tr>
<td>SMED 5310</td>
<td>Evidence Based Practice</td>
<td>3</td>
</tr>
<tr>
<td>SMED 5311</td>
<td>Research Methods I</td>
<td>3</td>
</tr>
<tr>
<td>SMED 5312</td>
<td>Research Methods II</td>
<td>3</td>
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<tr>
<td>SMED 5313</td>
<td>Biological Statistics for Athletic Training</td>
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</tr>
<tr>
<td>SMED 5321</td>
<td>Lower Extremity Assessment, Evaluation and Management</td>
<td>3</td>
</tr>
<tr>
<td>SMED 5322</td>
<td>Upper Extremity Assessment, Evaluation and Management</td>
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</tr>
<tr>
<td>SMED 5323</td>
<td>Head, Neck &amp; Spine Extremity Assessment, Evaluation and Management</td>
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<td>SMED 5324</td>
<td>General Medical Conditions in the Athlete</td>
<td>3</td>
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<tr>
<td>SMED 5331</td>
<td>Therapeutic Intervention I</td>
<td>3</td>
</tr>
<tr>
<td>SMED 5332</td>
<td>Therapeutic Intervention II</td>
<td>3</td>
</tr>
<tr>
<td>SMED 5333</td>
<td>Pharmacology for the Athlete</td>
<td>3</td>
</tr>
<tr>
<td>SMED 5334</td>
<td>Emerging Practices in Athletic Training</td>
<td>3</td>
</tr>
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<td>SMED 5335</td>
<td>Athletic Training Seminar</td>
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<tr>
<td>SMED 5341</td>
<td>Law &amp; Ethics in Athletic Training</td>
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<tr>
<td>SMED 5342</td>
<td>Sports Psychology in Athletic Training</td>
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<tr>
<td>SMED 5343</td>
<td>Administration, Leadership, &amp; Professional Development in Athletic Training</td>
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Clinical Experience - Internship Courses

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<tr>
<td>SMED 5102</td>
<td>Athletic Training Clinical Experience II</td>
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<tr>
<td>SMED 5103</td>
<td>Athletic Training Clinical Experience III</td>
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<td>SMED 5104</td>
<td>Athletic Training Clinical Experience IV</td>
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<tr>
<td>SMED 5105</td>
<td>Athletic Training Clinical Experience V</td>
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</table>

Total Hours: 57

¹ Course will be taken twice (summer of 1st year and repeated again summer of 2nd year).

National Certification for Athletic Trainers

Students in their last semester of completing their degree are permitted to apply to take the certification exam prior to graduation provided all academic and clinical requirements of the CAATE Accredited Program have been satisfied or will be satisfied during their last semester, and students have successfully complete the program exit exam. Students can apply to the Board of Certification (BOC) electronically at http://www.bocatc.org.

Texas Licensure for Athletic Trainers

Students may apply for the licensure examination prior to their graduation if they are within two semesters of completion of their degree. Eligible students can apply to the Texas Advisory Board of Athletic Trainers electronically at https://www.tdlr.texas.gov/at/at.htm.

Courses

SMED 5100 CPR and Basic Life Support
1 Semester Credit Hour (1 Lecture Hour)

SMED 5100 provides the skills needed by health care professionals who are trained to respond to breathing, cardiac, and other first aid emergencies. This includes the use of automated external defibrillation (AED), oxygen, suctioning, and airway management devices to care for a victim of breathing or cardiac emergencies. This course will be taken twice; once in the summer of first year in the program for initial certification and then again in the summer of the second year in the program for recertification.

SMED 5101 Athletic Training Clinical Experience I
1 Semester Credit Hour

SMED 5101 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.

SMED 5102 Athletic Training Clinical Experience II
1 Semester Credit Hour

SMED 5102 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.

PRerequisite: SMED 5101 and 5323 or SMED 5323.

SMED 5103 Athletic Training Clinical Experience III
1 Semester Credit Hour

SMED 5103 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.

PRerequisite: SMED 5102 and 5334 or SMED 5334.

SMED 5104 Athletic Training Clinical Experience IV
1 Semester Credit Hour

SMED 5104 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.

PRerequisite: SMED 5104 and 5335 or SMED 5335.

SMED 5200 Taping, Bracing, and Preventative Care in Athletic Training
2 Semester Credit Hours (2 Lecture Hours)

SMED 5200 provides students with lab-based instructions and experiences to introduce the various products and equipment used in the development and construction of pads and braces for injury prevention during sport and physical activity. Students will learn how to apply taping, bracing, bandaging and padding techniques that are common practice in Athletic Training.

PRerequisite: SMED 5321 or 5321.

SMED 5310 Evidence Based Practice
3 Semester Credit Hours (3 Lecture Hours)

SMED 5310 prepares students with the knowledge, skills and abilities necessary to make independent judgments about the validity, results, and application of clinical research and to implement evidence-based clinical practice in their careers.

PRerequisite: SMED 5311 or 5311.
SMED 5311 Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
SMED 5311 provides students with an intellectual opportunity to explore the methods and designs associated with research. This course explores the process and methods of scientific inquiry and interpretation of research findings in athletic training. Students will gain familiarity with the major elements of research including literature review, quantitative and qualitative methodology, design, evaluation of research, statistical analysis, presentation of data, and ethical considerations.
Prerequisite: SMED 5101 or 5101.

SMED 5312 Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
SMED 5312 provides students with an intellectual opportunity to integrate their knowledge of research basics and clinical skills, with a possibility for publication.
Prerequisite: SMED 5311, 5313 and 5105 or SMED 5105.

SMED 5313 Biological Statistics for Athletic Training
3 Semester Credit Hours (3 Lecture Hours)
SMED 5313 presents a study of the basic biological statistical concepts and their application to research problems in Athletic Training. Knowledge of biological statistics is imperative as students are required to participate in a case study, critically appraised topic, and/or research project. Students are encouraged to publish thus adding to the body of knowledge within Athletic Training. Topics will include issues related to descriptive and inferential statistics.
Prerequisite: SMED 5311 and 5102 or SMED 5102.

SMED 5321 Lower Extremity Assessment, Evaluation and Management
3 Semester Credit Hours (3 Lecture Hours)
SMED 5321 provides students with general knowledge of evaluation techniques of athletic injuries to the lower extremities including history taking, observation, palpation, neurologic and orthopedic testing as well as its acute management and documentation. Students will learn to utilize critical thinking skills to evaluate differential diagnosis and analyze the patient's signs and symptoms to defend a clinical diagnosis.
Prerequisite: SMED 5341, 5310 and 5200 or SMED 5200.

SMED 5322 Upper Extremity Assessment, Evaluation and Management
3 Semester Credit Hours (3 Lecture Hours)
SMED 5322 provides students with general knowledge of evaluation techniques of athletic injuries to the upper extremities including history taking, observation, palpation, neurologic and orthopedic testing as well as its acute management and documentation. Students will learn to utilize critical thinking skills to evaluate differential diagnosis and analyze the patient's signs and symptoms to defend a clinical diagnosis.
Prerequisite: SMED 5321 and 5311 or SMED 5311.

SMED 5323 Head, Neck & Spine Extremity Assessment, Evaluation and Management
3 Semester Credit Hours (3 Lecture Hours)
SMED 5323 provides students with general knowledge of evaluation techniques of athletic injuries to the head, neck and spine including history taking, observation, palpation, neurologic and orthopedic testing as well as its acute management and documentation. Students will learn to utilize critical thinking skills to evaluate differential diagnosis and analyze the patient's signs and symptoms to defend a clinical diagnosis.
Prerequisite: SMED 5322 and 5332 or SMED 5332.

SMED 5324 General Medical Conditions in the Athlete
3 Semester Credit Hours (3 Lecture Hours)
SMED 5324 will provide students with lectures, discussions, and laboratory activities concerning general medical conditions, evaluation techniques, and athletic injuries to internal organs. In addition, interprofessional working relationships with other health and medical professionals and the role of an athletic trainer within the healthcare system will be discussed and explored.
Prerequisite: SMED 5232 and 5103 or SMED 5103 and 5333 or SMED 5333.

SMED 5331 Therapeutic Intervention I
3 Semester Credit Hours (3 Lecture Hours)
SMED 5331 provides the student with knowledge of current theory and application of therapeutic modalities used in the treatment of musculoskeletal injuries.
Prerequisite: SMED 5200 and 5341 and (SMED 5101 or 5101 and SMED 5322 or 5322).

SMED 5332 Therapeutic Intervention II
3 Semester Credit Hours (3 Lecture Hours)
SMED 5332 provides the student with knowledge of current theory and application of therapeutic exercises and manual therapy used in the treatment of musculoskeletal injuries.
Prerequisite: SMED 5323, 5331 and 5102 or SMED 5102.

SMED 5333 Pharmacology for the Athlete
3 Semester Credit Hours (3 Lecture Hours)
SMED 5333 will include lectures and discussion of selected sports medicine topics focusing on pharmacology in athletics and activity. Students will examine different classes of medication and their impact on sports and exercise. In addition, interprofessional working relationships with other health and medical professionals and the role of an athletic trainer within the healthcare system will be discussed and explored. Written assignments are designed to provide the student with an opportunity to demonstrate their library research and written communication skills.
Prerequisite: SMED 5332 and 5324 or SMED 5324.

SMED 5334 Emerging Practices in Athletic Training
3 Semester Credit Hours (3 Lecture Hours)
SMED 5334 provides students with creative, flexible and innovative learning experiences on key emerging concepts and techniques that are newly arising within the field of Athletic Training. Content and instruction will examine new technology in the field, emerging theories, legal/ethical challenges and changes, as well as other evolving issues within the profession of athletic training.
Prerequisite: SMED 5333 and (SMED 5104 or 5104 and SMED 5342 or 5342).

SMED 5335 Athletic Training Seminar
3 Semester Credit Hours (3 Lecture Hours)
SMED 5335 provides students with an organized study session to prepare students to be eligible to sit for the Board of Certification (BOC) national examination. This course is in line with the 6th Role Delineation Study from the BOC.
Prerequisite: SMED 5343 and 5105 or SMED 5105.
Curriculum and Instruction, MS

Program Description
This master’s degree is designed for individuals who want to emphasize curriculum and instruction as they further their professional knowledge of education. They can focus on elementary and/or secondary levels in their curriculum and instruction as they further their professional knowledge of teaching. This master's degree is designed for individuals who want to emphasize professional education and content courses taken at the undergraduate level. Within the interdisciplinary program, a focus will be developed in areas of interest across cognate areas.

Student Learning Outcomes
Students will:

• State and define the major components in the field of curriculum and instruction,
• Produce a comprehensive literature review on a major issue in the field of curriculum theory or instruction, and
• Complete an action-based or historically-based quantitative or qualitative study on an issue in curriculum and instruction and defend it at a public gathering with at least three faculty members present.

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/education/curriculum_and_instruction_ms.html

Program Requirements

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<td>EDFN 5301</td>
<td>Introduction to Research</td>
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<tr>
<td>ERST 5302</td>
<td>Studies in Equality of Educational Opportunities</td>
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<tr>
<td>Curriculum and Instruction</td>
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<td>EDCI 5340</td>
<td>Instructional Techniques for Effective Teaching</td>
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<tr>
<td>EDCI 5361</td>
<td>Educational Assessment</td>
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<tr>
<td>EDCI 5362</td>
<td>Theoretical Bases for Curriculum</td>
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<td>READ 5369</td>
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<tr>
<td>EDCI 5389</td>
<td>Curriculum and instruction Research Seminar</td>
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Total Hours 36

* Online offering
^ Blended offering

Capstone Experience
All students are required to take EDCI 5389 Curriculum and instruction Research Seminar (3 sch) and complete a capstone experience within this course. Candidates for this degree must successfully present and defend a capstone project to a faculty panel.

Courses
EDCI 5308 STRATEGIES FOR TEACH SEC SCHOO 3 Semester Credit Hours (3 Lecture Hours)

STRATEGIES FOR TEACHING IN THE SECONDARY SCHOOL A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial certification.
EDCI 5315 METHODS OF TEACHING MATHEMATICS
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDCI 5316 METHODS OF TEACHING SOCIAL STUDIES
3 Semester Credit Hours (3 Lecture Hours)
METHODS OF TEACHING SOCIAL STUDIES A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences.

EDCI 5317 METHODS OF TEACHING SCIENCE
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students' prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course.

EDCI 5320 Mathematics through Communication
3 Semester Credit Hours (3 Lecture Hours)
A course for elementary and middle school teachers who are trying to improve mathematics teaching and understanding through the development of communication skills and their use in the mathematics classroom.

EDCI 5321 Mathematics through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers who wish to investigate the connection between children's literature and mathematics for the purpose of improving mathematics instruction. Teachers will work through activities based upon children's books, and develop and share similar activities based upon children's books of their choosing.

EDCI 5322 Science through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for elementary and middle school teachers who wish to investigate the connections between children's literature and science for the purpose of improving their science instruction. Teachers will participate in activities based on children's trade books that have scientific themes, and develop and share similar experiences.

EDCI 5323 Interactive and Multimedia Approaches in Mathematics
3 Semester Credit Hours (3 Lecture Hours)
This is a course for K-12 teachers who wish to investigate the use of motivational and reinforcement activities as a part of the instructional program within mathematics. Emphases will be placed on the purposes for using such activities in the mathematics program, the various types of such activities that are available to the mathematics teacher, the sources for such activities in mathematics, and the need for having a variety of such activities within the mathematics program.

EDCI 5324 DIAGNOSIS AND REMEDIATION OF MATHEMATICAL ERRORS
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers of K-12 who teach mathematics within the levels of kindergarten through algebra and wish to investigate mathematical errors for the purpose of diagnosing the cause and planning instruction for the purpose of remediation. Participating teachers will work through activities representing common mathematical errors made by students, maintain portfolios of samples of student errors, diagnose student errors, and learn teaching strategies for remediation of the problems that students are having.

EDCI 5325 Applied Connections: Mathematics, Science, and Communications
3 Semester Credit Hours (3 Lecture Hours)
The emphasis in this course is on interdisciplinary connections among mathematics, science, and communication and also on the application of subject-area knowledge to the world of work. Attention goes to relevant research, particularly research addressing effective innovations in teaching and learning. Networks will be created to support continued learning.

EDCI 5327 STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER This course is a field-based course in which beginning teachers are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5397. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5330 Teaching Environmental Sciences: I
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the elementary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5331 Teaching Environmental Sciences: II
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the secondary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5335 Methods of Teaching Mathematics: Grades 175
3 Semester Credit Hours (3 Lecture Hours)
A course designed to emphasize methods of teaching the essential elements in mathematics for Grades 175. An emphasis will be placed on the use of concrete manipulatives so that learning is accomplished with understanding.

EDCI 5336 Methods of Teaching Mathematics: Grades 578
3 Semester Credit Hours (3 Lecture Hours)
Emphasis will be placed on modeling with concrete manipulatives, teaching for understanding, integrating mathematics into other areas of the curriculum, problem solving, diagnosis, and evaluation.

EDCI 5339 PROGRAMS FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Characteristics and methods of identification of the Gifted and Talented. Various programmatic models including campus and district will be examined. Testing instruments and the concepts of differentiated curriculum will be analyzed.
EDCI 5340 Instructional Techniques for Effective Teaching
3 Semester Credit Hours (3 Lecture Hours)
This course will emphasize research-based strategies for increasing student achievement, models of successful instruction to help teachers/administrators plan, and techniques for implementation of effective instructional techniques.

EDCI 5341 Learning Theory Related to the Gifted Child
3 Semester Credit Hours (3 Lecture Hours)
An examination of current learning theories in relation to the gifted and talented child.
Prerequisite: EDCI 5339.

EDCI 5342 CURRICULUM DEVELOPMENT FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Learning experiences in scope and sequence development, development of unit plans and lesson plans, and material selection and evaluation.
Prerequisite: EDCI 5339.

EDCI 5345 Visual Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Instructional materials' design and development skills learned will be based on theoretical and research issues related to visual literacy.

EDCI 5350 Advanced School Problems
3 Semester Credit Hours (3 Lecture Hours)
Current issues in education; recent research bearing on teaching and organization of instructional programs in schools.

EDCI 5361 Educational Assessment
3 Semester Credit Hours (3 Lecture Hours)
This course will help educators to understand testing and performance assessment, and to effectively use assessment to support student learning ultimately building student success. The course prepares educators to use assessment as a tool to help develop all students in their classroom across the developmental span from Kindergarten through high school. Educators will learn how to prepare valid assessment instruments that contribute to effective instruction and student learning by developing proven, sound, high-quality assessments for use in the classroom.

EDCI 5362 Theoretical Bases for Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Reviewing and designing instructional programs; specific techniques for planning in various areas of the curriculum; concentration in area of student's curricular specialty; specification of instructional objectives.

EDCI 5389 Curriculum and instruction Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This is designed as the culminating course in the interdisciplinary curriculum and instruction master's degree. Covered in the class are: historical and current trends in research, the critical examination of selected research studies, and a self analysis of personal and professional interests and needs. This course calls for students to integrate and use information from previous graduate classes with information presented in this class to develop, implement, and defend an action-based research project.
Prerequisite: EDFN 5301 and EDCI 5340.

EDCI 5390 Professional Seminar
3 Semester Credit Hours
This course addresses contemporary issues in education. It may repeated when topics vary.

EDCI 5393 INTERNSHIP I AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDCI 5306 or have completed EDCI 5306.

EDCI 5394 INTERNSHIP II AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.

EDCI 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate."
Prerequisite: EDCI 5393, 5394 and 5327.

EDCI 5397 PRACT I FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM I FOR THE BEGINNING TEACHER This course is a supervised classroom teaching field experience designed to enhance the individual teacher's existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5327. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5398 PRACT II AND SEMINAR FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM II AND SEMINAR FOR THE BEGINNING TEACHER Beginning teachers are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised classroom teaching. Enrollment is limited to certified teachers currently in teaching positions.

EDCI 5696 Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

EDCI 5698 Practicum for Gifted Children
6 Semester Credit Hours (6 Lecture Hours)
This course involves a supervised experience with a variety of children classified as gifted. Students will plan and implement a program designed for gifted children.
Prerequisite: EDCI 5339.

EDCI 6301 Philosophy of Education
3 Semester Credit Hours (3 Lecture Hours)
Ontological and epistemological perspectives on leadership; historical conceptions of leadership as revealed in the works of Greek and Roman writers of the classical period and in the works of later European writers such as Machiavelli, Hobbes, Rousseau, Mill, and Weber.
EDCI 6303 ISSUES IN CURRICULUM AND INSTRUCTION
3 Semester Credit Hours (3 Lecture Hours)
This course will prepare the doctoral student in curriculum and instruction to understand, appreciate, and evaluate a variety of curricular strategies with attention paid to a continuum of philosophies and strategies in the area of curriculum development and the impact of those on instruction.
Prerequisite: EDCI 6301 or 6324.

EDCI 6324 Curriculum Theory
3 Semester Credit Hours (3 Lecture Hours)
An analysis of theoretical structures underlying curriculum development, implementation and evaluation.

EDCI 6335 CURRICULUM RESEARCH DESIGN
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the design of research studies, including experimental and quasi-experimental designs, other quantitatively-based designs, qualitatively-oriented designs, and mixed model designs.
Prerequisite: (EDLD 6392) and (EDLD 6333) and (EDLD 6384) and (EDLD 6385).

EDCI 6336 Culture, Language, and Cognition
3 Semester Credit Hours (3 Lecture Hours)
The focus is on cultural, linguistic, and pedagogical rationales for adapting curricula and materials to meet the needs of diverse students. By adopting various theoretical, methodological, and cultural frames of reference, course participants recognize capabilities in all learners.

EDCI 6356 Writing for Publications in Higher Education
3 Semester Credit Hours (3 Lecture Hours)
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

EDCI 6390 Special Topics in Curriculum
3 Semester Credit Hours (3 Lecture Hours)
This course addresses contemporary issues in education. Topics vary. It may be repeated when topics vary.

EDCI 6391 Historical Perspectives On Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Taking a historical perspective on the purposes and practices of schooling, this course covers major patterns in curriculum through the years in a national and global context. Also addressed are historiography and the history of educational research.

EDCI 6392 Critical Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
Attention goes to a set of philosophical positions and educational practices known as “critical pedagogy” and also to critiques and inquiries associated with this line of scholarship that address issues of difference and disadvantage. The course considers historical patterns as well as current manifestations in such areas as race, gender, and politics.

EDCI 6397 Seminar On Dissertation Research
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to assist students in writing a research proposal (introduction, review of literature, methods) that may become the basis for a doctoral dissertation.
Prerequisite: (EDCI 6335).

EDCI 6398 Dissertation in Progress
1-6 Semester Credit Hours
Doctoral candidates conduct an approved study under the supervision of a dissertation advisor and committee.

EDCI 6696 Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Early Childhood Education, MS
Program Description
This program is a degree designed for individuals who are currently working with young children or are desiring to work with young children in an educational setting. Courses are structured to increase the educator's knowledge of young children and the ensuing implications for programs and curricula.

Teachers, curriculum specialists and administrators will improve their competence in designing curriculum, classrooms, centers, and classroom experiences for young children. Students will also improve their skills in evaluating instruction based on children's needs, and develop techniques to appropriately evaluate young children's learning.

Student Learning Outcomes
Students will:
• Articulate and fulfill professional roles and responsibilities related to working with young children in the State of Texas.
• Design appropriate curricula, classroom centers, and classroom experiences for young children in the State of Texas.
• Determine effective, responsive instruction and assessment for young children in the State of Texas.
• Produce a portfolio consisting of experiences, projects, originally designed products and a synthesis of reflection developed during participation in the degree program.

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/education/early_childhood_ed.html

Campus Address:
Early Childhood Development Center, Room 206
361.825.3328
Jana.Sanders@tamucc.edu

Mailing Address:
Department of Curriculum, Instruction, and Learning Sciences, Unit 5834
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5834

Admission Requirements
Students are eligible to pursue graduate-level course work in Early Childhood Education if they meet COE graduate admission requirements as specified in the COEHD’s Graduate Policies and Regulations (p. 61) section of this catalog.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDFN 5301</td>
<td>Introduction to Research</td>
<td>3</td>
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Foundation Courses
**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ECED 5301</td>
<td>Involving Families and Communities in the Lives of Young Children</td>
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<tr>
<td>ECED 5334</td>
<td>DEVELOPMENTALLY APPROPRIATE EARLY CHILDHOOD CURRICULUM</td>
<td>3</td>
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<tr>
<td>ECED 5337</td>
<td>Cultural, Linguistic and Economic Diversity and the Effect on the Lives of Young Children</td>
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<tr>
<td>ECED 5340</td>
<td>Appropriate Formal and Informal Assessment of all Young Children</td>
<td>3</td>
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<td>ECED 5346</td>
<td>Capstone Research Proposal in Early Childhood Education</td>
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<tr>
<td>ECED 5349</td>
<td>Capstone Research Project in Early Childhood Education (required for all students)</td>
<td>3</td>
</tr>
<tr>
<td>READ 5310</td>
<td>Emergent Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialization Areas**

Select one of the following specialization areas: 9

**Bilingual Education (EC-Grade 6)**

- BIEM 5343 Foundations in Bilingual Education
- BIEM 5344 Methods of Teaching Bilingual Children
- BIEM 5345 Developmental Linguistics

**English as a Second Language**

- BIEM 5346 Pedagogical Implications of Bilingual/ESL
  - or BIEM 6344 Pedagogical Implications of Bilingual/ESL
- BIEM 5347 Methods of Teaching English As a Second Language
- BIEM 5349 Contrastive Analysis

**Reading Education**

- READ 5345 Stages and Standards for Reading Development
- READ 5350 Multicultural Literacy
- READ 5369 Content Area Reading
- READ 5381 Exploring the Literature of Children and Adolescents
- READ 5392 Psycho-sociolinguistics and Reading
- READ 5395 Leadership and Literacy

**Special Education**

- SPED 5315 Individuals with Exceptionalities in Schools
  - or SPED 6315 Individuals with Exceptionalities in the Schools
- SPED 5319 Introduction to Low-Incidence Disabilities
- SPED 5320 Application of Learning Principles
- SPED 5321 Supporting Access for Students with Low-Incidence Disabilities
- SPED 5340 Individuals with Multiple Disabilities
- SPED 5380 Behavioral Supports and Interventions for Students with Disabilities
- SPED 5385 English Learners and Special Education

**Fundamentals of Education**

- EDUC 5351 Foundations of Education in America
- EDUC 5352 Planning, Teaching, Learning Processes
- EDUC 5353 Classroom Management and the Student

**Additional Electives as approved by advisor**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED 5303</td>
<td>GRADUATE STUDIES IN EARLY CHILDHOOD EDUCATION</td>
<td>3</td>
</tr>
</tbody>
</table>

**Courses**

**Bilingual/ESL/Multicultural Education Courses**

- BIEM 5343 Foundations in Bilingual Education
  - 3 Semester Credit Hours (3 Lecture Hours)
  - A study of bilingualism and bilingual education in the United States with attention to rationale, philosophy, and program models.
- BIEM 5344 Methods of Teaching Bilingual Children
  - 3 Semester Credit Hours (3 Lecture Hours)
  - Methods and techniques of teaching bilingual students in elementary schools. Emphasis is on teaching Spanish language arts.
- BIEM 5345 Developmental Linguistics
  - 3 Semester Credit Hours (3 Lecture Hours)
  - Language acquisition and development with special reference to their implications for teaching monolingual and bilingual students.
- BIEM 5346 Pedagogical Implications of Bilingual/ESL
  - 3 Semester Credit Hours (3 Lecture Hours)
  - Overview of curriculum alignment in the bilingual classroom. Includes analysis of language assessment instruments and the pedagogical implications associated with the education of culturally and linguistically diverse students. Students who have taken BIEM 5346 may not enroll in BIEM 6346.
- BIEM 5347 Methods of Teaching English As a Second Language
  - 3 Semester Credit Hours
  - Advanced studies in methodology and techniques available for teaching learners whose native language is not English. Some attention to sociolinguistics is considered.
- BIEM 5349 Contrastive Analysis
  - 3 Semester Credit Hours (3 Lecture Hours)
  - A descriptive/contrastive approach to the study of Spanish and English linguistic structures. Introduces basic concepts of language, linguistics, and bilingualism.
BIEM 5390 Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contemporary issues in Bilingual/ESL Multicultural Education: topics vary with professional identification of participants.

BIEM 5397 Practicum-Multicultural Education
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with in-depth knowledge and skills in the content areas as they apply to the education of language minority children in appropriate multicultural, multilingual, and multilevel settings.

BIEM 5696 Directed individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

BIEM 6346 Pedagogical Implications of Bilingual/ESL
3 Semester Credit Hours (3 Lecture Hours)
Overview of curriculum alignment in the bilingual classroom. Includes analysis of language assessment instruments and the pedagogical implications associated with the education of culturally and linguistically diverse students. Students who have taken BIEM 5346 may not enroll in BIEM 6346.

Early Childhood Education Courses
ECED 5301 Involving Families and Communities in the Lives of Young Children
3 Semester Credit Hours (3 Lecture Hours)
The course will encompass a study of the contributions of national, state, and local agencies, referral services, and family involvement as these relate to the lives of young children.

ECED 5303 GRADUATE STUDIES IN EARLY CHILDHOOD EDUCATION
3 Semester Credit Hours (3 Lecture Hours)
An introduction to research studies in early childhood education and an analysis of their implications for the classroom teacher. Students will be able to engage in action research in early childhood classrooms.

ECED 5334 DEVELOPMENTALLY APPROPRIATE EARLY CHILDHOOD CURRICULUM
3 Semester Credit Hours (3 Lecture Hours)
An intensive study of the principles of curriculum, which includes philosophy, organization, recognition of diversity, selection and evaluation of curriculum materials, and development of an early childhood education program.

ECED 5337 Cultural, Linguistic and Economic Diversity and the Effect on the Lives of Young Children
3 Semester Credit Hours (3 Lecture Hours)
The course will address a study of the factors related to culturally, linguistically, and economically diverse young children. Issues related to these diverse issues will be explored and effective strategies for working with these children and their families will be explored.

ECED 5340 Appropriate Formal and Informal Assessment of all Young Children
3 Semester Credit Hours (3 Lecture Hours)
Formal and informal assessment strategies and tools used in the assessment of young children will be studied. Current recommended assessment practices and research in early childhood education will be examined.

ECED 5346 Capstone Research Proposal in Early Childhood Education
3 Semester Credit Hours
The course will facilitate the development of the research based capstone experience proposal. The proposal must focus on some aspect of early childhood education.
Prerequisite: EDFN 5301.

ECED 5349 Capstone Research Project in Early Childhood Education
3 Semester Credit Hours (3 Lecture Hours)
Students will implement and complete their capstone proposal. This may be a thesis or project, focus on some aspect of early childhood education and culminate in a formal written paper.

ECED 5390 Professional Seminar
3 Semester Credit Hours
Contemporary issues in Early Childhood Education: topics vary with professional identification of participants.

ECED 5397 Practicum in Early Childhood Education
3 Semester Credit Hours
An opportunity to secure practical experience in early childhood classrooms and analyze those programs in terms of available research. A personalized culminating experience for the early childhood specialist.

ECED 5696 Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Teaching Education/Student Teaching Courses
EDUC 5327 Strategies of Success I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions. This course is taken during the first semester of the second year on a “Probationary Certificate.”
Prerequisite: EDUC 5393 and 5394.

EDUC 5351 Foundations of Education in America
3 Semester Credit Hours
A course emphasizing multicultural aspects of education; requirements for teaching as they relate to special education students, including the gifted and talented; the legal and ethical aspects of teaching; and the forms of organization and management utilized in Texas and in the U.S. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5352 Planning, Teaching, Learning Processes
3 Semester Credit Hours
A course emphasizing the various aspects of planning for teaching: the teaching/learning process; curriculum organization; use of instructional media and technology; instructional planning; and instructional and student evaluation, including standardized testing programs, teacher evaluation, and various forms of instructional and student evaluation planned and conducted by the teacher. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.
EDUC 5353  Classroom Management and the Student
3 Semester Credit Hours
A course emphasizing methods of organizing and managing a classroom, and student growth and development concepts and how they will affect classroom management. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5354  Methods of Teaching Mathematics
3 Semester Credit Hours
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5355  Methods of Teaching Social Studies
3 Semester Credit Hours
A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5356  Methods of Teaching Science
3 Semester Credit Hours
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students' prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5357  Strategies for Teaching in the Secondary School
3 Semester Credit Hours
A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5358  Applied Research and Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the finding, interpreting, and use of research to achieve a stated educational goal for each individual student. Concepts of tests and measurements will be emphasized for interpreting research results and gathering data for applied research. Students will develop and execute an applied inquiry project. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5390  Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
This course addresses contemporary issues in education. May be repeated for credit when the topic varies.

EDUC 5393  Internship I and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDUC 5352 - Planning, Teaching, Learning Processes* (or have completed EDUC 5352 - Planning, Teaching, Learning Processes*) and completed 30 contact hours of field observation.

EDUC 5394  Internship II and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.

Prerequisite: EDUC 5393 and 5352.

EDUC 5395  Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but are currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate."

Prerequisite: EDUC 5393, 5394 and 5327.

EDUC 5397  Practicum I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills for the beginning teachers during their third year on a "Probationary Certificate." Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken concurrently with EDUC 5327 first semester of the third year on a "Probationary Certificate." This course may not be taken for graduate credit if the student has taken EDUC 5393, EDUC 5394 or EDUC 5395.

Prerequisite: EDUC 5327, 5393, 5394 and 5395.

EDUC 5398  Practicum II and Seminar for the beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
Beginning teachers who are currently in their third year of a "Probationary Certificate" are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised supervision for effective classroom teaching. Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second (and final) semester of the third year on a "Probationary Certificate."

Prerequisite: EDUC 5327, 5393, 5394, 5395 and 5397.
EDUC 5696 Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
Contemporary issues in educational technology; topics vary with professional interests and needs of participants. This "hybrid" course focuses upon enabling students to design effective instructional activities and materials for on-line instruction within a learning management system (LMS) environment. Students will acquire research-based knowledge about the design and development of effective on-line instruction which is consistent with established best practices. Emphasis will be placed upon development of on-line instruction in curricular areas specified by the instructor or selected by the student, subject to instructor approval.

Reading Courses

READ 5310 Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy (K-3). Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of the language systems (reading, writing, speaking, listening). Of particular concern will be children’s oral language, letter knowledge, reading and writing vocabularies, concepts about print, and auditory discrimination.

READ 5314 College/Adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adult education.

READ 5321 Fundamentals of Elementary Reading instruction I
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of methods, materials, and strategies for teaching reading. It is designed to provide graduate students with professional knowledge concerning current research, philosophical perspectives, essential program components, and pedagogical strategies essential to the teaching of reading. Enrollment limited to graduate students seeking initial teacher certification.

READ 5322 Fundamentals of Elementary Reading instruction II
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of theoretical, research, and pedagogical aspects of the reading-writing connection for grades 4-8 students. There will also be an emphasis on content area reading and study skills as well as the writing process. Enrollment limited to graduate students seeking initial certification.

READ 5323 Fundamentals of Secondary Reading instruction
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide graduate students with professional knowledge concerning current research, theory, essential program components, and pedagogical strategies in secondary literacy. Application of strategies to the reading, writing, and learning needs to adolescents will be emphasized. Areas of consideration will include classroom assessment of literacy study reading, and integrating trade books into the content classroom. Enrollment limited to graduate students seeking initial certification.

READ 5345 Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate.

READ 5346 Trends and issues in Literacy
3 Semester Credit Hours (3 Lecture Hours)
In this course students will examine the recent and past trends in literacy and the political, cultural, and research-based forces that influenced those trends. Attention will be given to how those trends have impacted and are impacting literacy instruction.

READ 5350 Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. This course is required for the Master Reading Teacher Certificate.

READ 5352 Theoretical Models of Reading and Writing
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide teachers opportunities to expand their knowledge of the theoretical ways in which reading and writing processes are related and the practical ways in which these parallel processes can be incorporated into the literacy curriculum.

READ 5355 Teaching Literacy through Technology
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students explore research on the use of computers and related technology to (a) develop a more responsive literacy curriculum, and (b) determine literacy management and evaluation procedures in the technology environment.

READ 5357 Critical Literacy
3 Semester Credit Hours (3 Lecture Hours)
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts.

READ 5369 Content Area Reading
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students’ abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation.

READ 5371 Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course students learn techniques for diagnosis and correction of reading problems as they work with children experiencing difficulty in learning to read.

READ 5372 Classroom Assessment and instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. This course is required for the Master Reading Teacher Certificate.
READ 5381  Exploring the Literature of Children and Adolescents  
3 Semester Credit Hours (3 Lecture Hours)  
This course will examine the historical, social, and pedagogical developments of the field of literature for children and adolescents.

READ 5390  Professional Seminar: Special Topics in Literacy  
3 Semester Credit Hours  
The course addresses issues relevant to literacy. It may be repeated when topics vary.

READ 5392  Psycho-sociolinguistics and Reading  
3 Semester Credit Hours (3 Lecture Hours)  
This course explores the psychology of language as well as the social semiotics of language learning. Theories of cognition and sociolinguistics will be examined as they relate to literacy development in regular and specialized learning contexts.

READ 5393  Literacy Curriculum and Supervision  
3 Semester Credit Hours (3 Lecture Hours)  
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 5395  Leadership and Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This course emphasizes how to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues.

READ 5396  Literacy Research Seminar  
3 Semester Credit Hours  
This seminar is the culminating course in the graduate reading concentration. Current trends in literacy research, the critical examination of selected research studies, and the self-evaluation of professional needs and interests are included. This course calls for students to integrate information from previous classes with new information presented in this class in order to develop, conduct, and evaluate action-based research.

READ 5696  Directed individual Study  
1-6 Semester Credit Hours  
May be repeated when topics vary.

READ 5697  Reading Practicum  
6 Semester Credit Hours (6 Lecture Hours)  
Students will have an opportunity to apply their knowledge of reading instruction by teaching children and youth with reading difficulties. They will gain knowledge of: the organization and management of the reading program, as well as early intervention strategies and programs. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies on the children and youth being tutored. Some emphasis will also be placed on the many roles of the reading professional.

READ 6310  Emergent Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Language acquisition and functions of language are explored for beginning literacy P-4. Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of language systems (reading, writing, speaking, listening). Of particular concern will be children's oral language, letter knowledge, reading and writing vocabulary, concepts about print, and auditory discrimination. Doctoral students enrolled in this course will be expected to complete all assignments designated for master's students and also complete additional specified assignments. Students who took this course as READ 5310 may not take the course as READ 6310.

READ 6314  College/adult Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adults. In addition, doctoral students will study topics related to educating adults in professional situations. Students who took this course as READ 5314 may not take the course as READ 6314.

READ 6345  Stages and Standards for Reading Development  
3 Semester Credit Hours (3 Lecture Hours)  
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5345 may not take the course as READ 6345.

READ 6350  Multicultural Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. Doctoral students will have assignments that go beyond those for master’s students. Students who took this course as READ 5350 may not take the course as READ 6350.

READ 6352  Theoretical Bases for Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Course focus is on major theories of reading and literacy in terms of both processes and practices. It also attends to ways in which theory relates to the literacy curriculum.

READ 6356  Writing for Publications in Higher Education  
3 Semester Credit Hours (3 Lecture Hours)  
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

READ 6357  Critical Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts. Doctoral students have assignments that go beyond those for master’s students. Students who took this course as READ 5357 may not take the course as READ 6357.
READ 6369  Content Area Reading
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students' abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5369 may not take the course as READ 6369.

READ 6371  Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course, students will become aware of the factors that influence reading achievement through the study and implementation of various assessments. Some attention will also be paid to instructional strategies. The primary focus will be on children who are having difficulty reading. Students who took this course as READ 5371 may not take the course as READ 6371.

READ 6372  Classroom Assessment and instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. Students who took this course as READ 5372 may not take the course as READ 6372.

READ 6380  Advanced Studies in Literature for Children and Adolescents
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the historical, sociological, and pedagogical developments of the field of literature for children and adolescents and will emphasize teacher research and inquiry. The major emphasis of the course will focus on awareness of both traditional and contemporary literature and authors for children and adolescents.

READ 6390  Special Topics in Reading
3 Semester Credit Hours (3 Lecture Hours)
The course addresses contemporary issues in education. It may be repeated when topics vary.

READ 6391  Evaluation of Literacy Methods, Materials, and Assessment
3 Semester Credit Hours (3 Lecture Hours)
Reading professionals taking the course acquire the knowledge and strategies to evaluate literacy-related materials, methodologies, and assessment. In addition, they develop a process to evaluate teacher-produced and commercial materials.

READ 6392  Psycho-sociolinguistics and Reading
3 Semester Credit Hours (3 Lecture Hours)
This course explores the psychology and the social semiotics of language and their relationship to literacy teaching and learning. Theories of cognition and sociolinguistics will be examined as frameworks for better understanding literacy development. Semiotics is the study of the signs and symbols of language and deals with their functions in the syntactic, semantic, and pragmatic use of language. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5392 may not take the course as READ 6392.

READ 6393  Literacy Curriculum and Supervision
3 Semester Credit Hours (3 Lecture Hours)
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 6395  Leadership and Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes "how" to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues. Students who took this course as READ 5395 may not take the course as READ 6395.

READ 6396  Literacy Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
In this doctoral-level course in reading/literacy research, attention goes to historical and current trends in literacy research, the critical examination of selected reading research studies, and self analysis of personal and professional interests and needs. This course calls for students to integrate information from previous graduate classes with information presented in this class to analyze and implement reading/literacy research. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5396 may not take the course as READ 6396.

READ 6398  Advanced Reading Supervision Practicum
3 Semester Credit Hours (3 Lecture Hours)
In this course, reading specialists will be provided with an opportunity to apply their supervisory skills in a practical situation. Students will observe and evaluate inservice teachers, as well as make suggestions for improvement. Course requirements include completion of teacher evaluation summaries; development of observation forms; description of a district-wide reading program; and planning and implementation of an inservice workshop.

READ 6399  Advanced Literacy Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize doctoral students with (a) historical avenues of literacy research, (b) current trends in literacy research, and (c) procedures for conducting personal research leading to a doctoral dissertation in some aspect of literacy education.
Prerequisite: EDLD 6333.

READ 6696  Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

READ 6697  Reading Clinic Practicum
6 Semester Credit Hours
In this course students will have an opportunity to apply their knowledge of reading instruction by teaching children with reading difficulties. In addition, students will gain knowledge of strategies for comprehension, word recognition and study skills. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies. Doctoral students have additional assignments that go beyond those required of master's students. Students who took this course as READ 5697 may not take the course as READ 6697.
Prerequisite: READ 5371 or 6371.
### Special Education Courses

**SPED 5310 Psychoeducational Testing**
3 Semester Credit Hours (3 Lecture Hours)
Focuses on current research and best practice in assessment of exceptional learners, interpretation of formal and informal assessment data gathered through various methods, assessment of students from diverse backgrounds in the application of data gathered via a multi-tiered system of support (MTSS). Instructor's permission required.  
**Prerequisite:** CNEP 5371 and 5374.

**SPED 5311 Advanced Assessment**
3 Semester Credit Hours (3 Lecture Hours)
Presents a variety of research-based assessment techniques and tools designed to assess exceptional learners. Academic and cognitive assessments are combined for interpretation and development of Full and Individual Evaluations.

**SPED 5315 Individuals with Exceptionalities in Schools**
3 Semester Credit Hours (3 Lecture Hours)
This course provides basic information and skills for working with students with exceptionalities in a variety of settings. It also includes current trends, issues, and research pertaining to persons with exceptionalities.

**SPED 5319 Introduction to Low-Incidence Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the field of low-incidence disabilities. Students will explore foundational concepts including: definition and etiology, family and professional partnerships, special education law, and standards-based IEPs.

**SPED 5320 Application of Learning Principles**
3 Semester Credit Hours (3 Lecture Hours)
This course prepares teachers, administrators, counselors and diagnosticians to use a variety of applied learning principles to increase student learning and minimize disruptive behavior.

**SPED 5321 Supporting Access for Students with Low-Incidence Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on areas of universal design, assistive technology, and resources that support the learning and independence of diverse learners both in school and community settings. Class sessions will be held both on campus and in community settings.

**SPED 5324 Survey of Assistive Technology**
3 Semester Credit Hours (3 Lecture Hours)
This course is an introduction to assistive technology for individuals with disabilities.

**SPED 5325 Technology for inclusion**
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on the use of assistive technology to support and facilitate inclusion of students with disabilities in the classroom.  
**Prerequisite:** ETEC 5301.

**SPED 5326 Assistive Technology Assessment**
3 Semester Credit Hours (3 Lecture Hours)
This course will provide systematic procedures for the assessment of individual student's assistive technology needs. Legal issues of assistive technology and its impact on public education will be addressed.  
**Prerequisite:** ETEC 5301.

**SPED 5327 Motor Activity Programs for individuals with Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course examines the significant role of motor activity in the lives of people with disabilities. Major programmatic approaches to adapted physical activity are presented.

**SPED 5340 Individuals with Multiple Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course is an advanced study of the adaptations, approaches, and supports necessary to meet the educational needs of students who have communication, intellectual, motor, sensory, and/or medical impairments.

**SPED 5380 Behavioral Supports and Interventions for Students with Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on characteristics and classifications of children and adolescents with behavior disorders. Intervention orientations and associated education/treatment approaches for children and adolescents will be explored.

**SPED 5385 English Learners and Special Education**
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to prepare special educators to address the sociocultural and ethnolinguistic needs of English learners. Particular emphasis is placed on: understanding the influence of language and culture in the design of instruction to prevent academic difficulty; the identification of students who need additional instructional supports; appropriate referral, screening, and assessment of students suspected of having disabilities; and the design of individualized education plans for students who qualify for special education services.

**SPED 5386 Strategic Reading and Language Instruction for Students with High-Incidence Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on reading and language strategies for teaching students with disabilities, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

**SPED 5387 Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities**
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

**SPED 5388 Current Issues in Special Education**
3 Semester Credit Hours (3 Lecture Hours)
CURRENT ISSUES IN SPECIAL EDUCATION Addresses issues currently facing the special education area. The course will focus on the following topics: (1) law and litigation, (2) inclusion, (3) assessment and individualized educational plan (IEP) procedures, (4) classification and labeling, (5) collaboration and consultation, (6) transition, (7) vocational education, (8) parent involvement, and (9) other relevant cultural pluralistic issues.

**SPED 5390 Professional Seminar**
3 Semester Credit Hours (3 Lecture Hours)
Topics in Special Education vary with professional identification of participants.
SPED 5397  Special Education Field Experience
3 Semester Credit Hours (3 Lecture Hours)
A field-based experience in which the student will demonstrate competencies to design and/or implement IEP’s for students with disabilities, including those who are English learners. Grade assigned will be "credit" (CR) or "no credit" (NC).
Prerequisite: SPED 5315 and (SPED 5380, 5320 and 5387).

SPED 5399  Individualized Programs for Students with Exceptionalities: Practicum
3 Semester Credit Hours (3 Lecture Hours)
Field-based practicum based on Texas Educational Diagnostician standards. This course focuses on opportunity to gain extensive field experience in the administration and interpretation of assessment instruments and the development of individualized education programs. Instructor’s permission required.
Prerequisite: (CNEP 5371, 5374, SPED 5310, 5315 and 5387).

SPED 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

SPED 6315  Individuals with Exceptionalities in the Schools
3 Semester Credit Hours (3 Lecture Hours)
Basic information and skills for working with individuals with exceptionalities in a variety of settings. Includes current trends, issues and research pertaining to individuals with disabilities. Students who have taken SPED 5315 may not enroll in SPED 6315.

SPED 6319  Introduction to Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the field of low-incidence disabilities. Students will explore foundational concepts including: definitions and etiology, family and professional partnerships, special education law, and standards based Individualized Education Program (IEPs).

SPED 6320  Applications of Learning Principles
3 Semester Credit Hours (3 Lecture Hours)
This course prepares student(s) to use a variety of evidence-based approaches to increase student learning and minimize disruptive behavior.

SPED 6321  Supporting Access for Students with Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on areas of universal design, assistive technology, and resources that support the learning and independence of diverse learners both in school and community settings. Class sessions will be held both on campus and in community settings.

SPED 6380  Behavior Intervention and Support for Students with Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on characteristics and classifications of children and adolescents with behavior disorders. Intervention orientations and associated education/treatment approaches for children and adolescents will be explained.

SPED 6385  English Learners and Special Education
3 Semester Credit Hours (3 Lecture Hours)
The philosophical and legal foundations of bilingual special education and bilingual education in the United States will be examined. Bilingual special education and bilingual education will be defined and the rationale for these programs will also be explained. Moreover, language minority education program models will be described and aspects associated with bilingualism will be discussed. Special emphasis will be placed on a perusal of school-community dynamics relevant to language minority special education.

SPED 6386  Strategic Reading and Language Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on reading and language strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

SPED 6387  Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

Educational Administration, MS

Program Description
The mission of the Master's Program in Educational Administration is to prepare leaders for PK-20 administration at the regional, national, and international levels. This learner-centered program prepares graduates to meet the current demanding challenges of school leadership positions, including teacher leaders, department heads, campus assistant principal, campus principal, and central office administration.

Benefits
The benefits of studying to be an educational leader at Texas A&M University-Corpus Christi:

• The Master’s Program in Educational Administration provides opportunities for students to develop in-depth understanding about leadership roles and responsibilities, working with community at-large, policy administration, and contemporary educational issues.
• Coursework is designed around issues of equity and social justice research within contexts of rural, urban, and suburban schools.
• Graduates of the program are prepared to advocate, nurture and sustain a campus culture and instructional program conducive to student learning and faculty professional growth.
• The Master’s Program in Educational Administration uses a hybrid/blended instructional delivery method to meet the needs of our students.

Student Learning Outcomes

• Students will be able to explain, evaluate, and apply knowledge of the major concepts in the functional areas of educational administration: Instructional Leadership, Human Capital, Executive Leadership, School Culture, and Strategic Operations.
• Students will gain a grounded understanding of the theoretical and practical implications of leadership roles and responsibilities including:
  • Developing educational leadership perspectives and practices;
  • Leading socially just organizations;
  • Advance personal and professional development through examining pedagogy and practice by providing evidence-based feedback that supports efforts to improve instructional quality and student performance;
  • Design, articulate, implement and stewardship of ethical education programs and change initiatives
• Students will understand and apply the following disciplinary knowledge of educational administration:
  • School Community Leadership
  • Instructional Leadership
  • Administrative Leadership

Learning Experiences
• The learning experiences in the ethics of leadership prepare the graduates to model and promote the highest standard of conduct, ethical principles, and integrity in decision-making, actions, and behaviors.
• The learning experiences in the development of campus culture prepare the graduates to create a campus culture that sets high expectations, promotes learning, and provides intellectual stimulation for self, students, and staff.
• The learning experiences in human resources leadership prepare students to collaboratively develop, implement, and revise a comprehensive and on-going plan for professional development of campus staff which addresses staff needs and aligns professional development with identified goals, to further develop necessary knowledge and skills, and to model lifelong learning.
• The learning experiences in communication and community relations prepare students to demonstrate effective communication and collaboration that will establish partnerships with parents, businesses, and other groups in the community to strengthen programs and support campus goals.
• The learning experiences in leadership and management prepare students to implement appropriate management techniques and group processes to define roles, assign functions, delegate authority, and determine accountability for campus goal attainment through all school operations and programs.
• The learning experiences in curriculum planning and development prepare students to use emerging issues, occupational and economic trends, demographic data, student learning data, motivation theory, learning theory, legal requirements, and other information as a basis for campus curriculum planning.
• The learning experiences in instructional leadership prepare students to facilitate the development of a campus learning organization that facilitates the development, implementation, evaluation, and refinement of student activity programs to fulfill academic, developmental, social, and cultural needs and Acquire and allocate sufficient instructional resources on the campus in the most equitable manner to support and enhance student learning.

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/education/ed_admin.html

Campus Address:
Faculty Center, Room 224
Phone (361) 825-2992
bernadine.cervantes@tamucc.edu

Mailing Address:
Department of Educational Administration and Research, Unit 5818
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5818

Admission Requirements
All applicants must meet the general graduate admission requirements of the University.

1. Applicants must have a minimum undergraduate GPA of 3.00 and a graduate GPA of 3.00 on the last 60 semester credit hours of undergraduate work and any previous work in graduate school.
2. Applicants must complete the goals statement as required on the application form. The statement should be between 300 to 400 words, and should include information about their reasons for pursuing a graduate degree in Educational Administration and certification in the principalship. Applications will be evaluated by department faculty holistically on a scale of 1 - 4. Only students scoring a 3 or 4 will be admitted to the program.
3. Students who have submitted all required application documents, but who do not meet the minimum GPA of 3.00, may enroll in a conditional status in courses approved by the program coordinator. (See “Conditional Status ” in the “Admissions (p. 7)” section of the catalog.) Such students must achieve not less than a 3.00 GPA in the specified courses. After completing at least 6 semester credit hours with a GPA of not less than 3.00 at this University, applicants may continue the application process into the program. Graduate students on conditional status can normally take no more than 6 graduate hours per semester until the conditional status is removed. However, students admitted conditionally may take 9 semester credit hours per semester with the approval of the Department. If students fail to meet the conditions stipulated by the department to which they were conditionally admitted, they will be suspended from the College of Education and Human Development for at least one year. During this suspension, they cannot take any graduate courses in the College of Education and Human Development. After a year’s suspension, students may reapply for the program of their choice. No more than 9 semester hours of courses taken at this University or any other University while in this conditional status may be applied to this specific graduate degree at Texas A&M University-Corpus Christi. After the student is admitted, graduate-level certification plans and/or Master of Science degree plans must be filed in the COEHD Certification Office through the faculty advisor. A student becomes an official certification-seeking or degree-seeking student when the plans are approved by the faculty advisor and the academic advisor. Certification and degree plans that involve TEA/State Board for Educator Certification rules also require approval of the certification officer. In addition to successful completion of all courses, to be recommended for principal certification, students must pass the TExES examination for the principal and provide the certification officer with a teacher service record with a minimum of two years teaching experience.
## Program Requirements

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Core Courses</td>
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<tr>
<td>EDAD 5304</td>
<td>Introduction to the Principalship</td>
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<td>EDAD 5366</td>
<td>Personnel Management</td>
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<td>EDAD 5376</td>
<td>Supervision of Teaching</td>
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<td>EDAD 5377</td>
<td>Teacher Appraisal System</td>
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<td>General Administrative Competencies</td>
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<td>EDAD 5363</td>
<td>Public School Law</td>
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<td>EDAD 5378</td>
<td>Application of Administrative Concepts</td>
<td>3</td>
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<tr>
<td>EDAD 5399</td>
<td>School Administration Practicum (I)</td>
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<td>EDAD 5399</td>
<td>School Administration Practicum (II)</td>
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<td>Electives</td>
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<td>Select two of the following. Take any time in program.</td>
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<td>EDAD 5360</td>
<td>Organizational Theory</td>
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<tr>
<td>EDAD 5364</td>
<td>MANAGEMENT OF EDUCATIONAL PROGRAMS AND SPECIAL UNITS</td>
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<tr>
<td>EDAD 5374</td>
<td>Campus Finance and Budgeting</td>
<td></td>
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<tr>
<td>EDAD 5375</td>
<td>COMMUNICATION AND COMMUNITY RELATIONS</td>
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<td>College Requirements</td>
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<td>EDFN 5301</td>
<td>Introduction to Research</td>
<td>3</td>
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<tr>
<td>ERST 5302</td>
<td>Studies in Equality of Educational Opportunities (Must be included if the student has not completed an upper-division course in multicultural education)</td>
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</tbody>
</table>

**Total Hours**: 36

* Online offering
^ Blended offering

## Comprehensive Examination

All candidates for the Master's degree in Educational Administration are required to successfully complete a program comprehensive examination. The comprehensive examination is scheduled during the semester in which the student is enrolled in the last course(s) needed to complete the degree and will be offered three times per year (Fall, Spring, and Summer).

A candidate may not retake the comprehensive examination more than twice without program faculty approval and may not retake the examination before the next regularly scheduled examination.

## Elementary Education (MAC), MS

### Program Description

This degree is appropriate for persons seeking EC-Grade 6 or Grades 4-8 Initial Teacher Certification. The competencies required for this program are in the area of "Graduate Level Initial Certification (p. 80)." This program is usually referred to as the Masters and Certification (MAC) program.

### Student Learning Outcomes

Students will:

- Design instruction and assessment to promote student learning.
- Provide examples of a positive classroom climate.
- Determine effective, responsive instruction and assessment as teachers.
- Articulate and fulfill professional roles and responsibilities as teachers.
- Design and implement an action research project that utilizes knowledge of the content and pedagogy acquired in the program to inform their teaching.

## For Additional Information

**Website:**
http://gradschool.tamucc.edu/degrees/education/elementary_ed.html

**Campus Address:**
Early Childhood Development Center, Room 224
361.825.2446
Kathleen. Lynch-Davis@tamucc.edu

**Mailing Address:**
Department of Curriculum, Instruction, and Learning Sciences,
Unit 5834
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5834

**Admission Requirements**

Students are eligible to pursue graduate-level course work in Elementary Education if they meet COEHD graduate admission requirements as specified in the COEHD's Graduate Policies and Regulations (p. 61) section of this catalog and have a bachelor's degree.

Prior to full or conditional acceptance into the College of Education and Human Development Graduate Program, students seeking initial certification and a Master of Science degree in Elementary Education must:

- meet all requirements of the College of Graduate Studies;
- pass the TX Pre-Admission Content Test (PACT), if your undergraduate degree is not in your certification content area;
- complete a screening essay and read & sign the Texas Teacher Code of Ethics;
- meet all requirements for admission to the graduate program and submit the online graduate application at http://gradschool.tamucc.edu/application.html;
- provide proof of English Language Proficiency must be established by the equivalent to/passing of English 1301 or 1302 or the Test of English as a Foreign Language. A transcript translation must occur by a certified group acceptable to The Higher Education Coordinating Board;
- meet with the College of Education and Human Development Certification Officer to develop a certification plan.

Certification and degree plans that involve TEA/State Board for Educator Certification rules also require approval of the Certification Officer prior to becoming certified to teach. Students desiring to change from their initial choice of certification plan or degree plan must apply to, and be
accepted by the Program Area in which the new plan is offered. Any course waivers within the student’s plan must be filed in the COEHHD Certification Office.

Program Requirements

Students seeking the Master of Science in Elementary Education and EC-6 or 4-8 Certification must complete all requirements for both prior to certification and/or graduation. Students must complete two semesters of Internship or one semester of Clinical Teaching, along with the required electives, in order to graduate.

Clinical Teaching or Internship Track Option

Students must complete two semesters of Internship or one semester of Clinical Teaching with required electives. If you choose the clinical teaching path, you will register for 6 hours of clinical teaching; these hours are not accepted for graduate credit, therefore you will be required to take two additional graduate level courses within the teacher preparation coursework.

If you choose the intern teacher path, you will register for EDUC 5393 Internship I and Seminar for the intern Teacher (3 sch) and EDUC 5394 Internship II and Seminar for the intern Teacher (3 sch), which will total 6 sem. hrs. These courses have a required seminar component and clinical supervision by a university field supervisor.

Courses

**EDUC 5327 Strategies of Success I for the Beginning Teacher**  
3 Semester Credit Hours (3 Lecture Hours)

This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions. This course is taken during the first semester of the second year on a “Probationary Certificate.”  

**Prerequisite:** EDUC 5393 and 5394.

**EDUC 5351 Foundations of Education in America**  
3 Semester Credit Hours

A course emphasizing multicultural aspects of education; requirements for teaching as they relate to special education students, including the gifted and talented; the legal and ethical aspects of teaching; and the forms of organization and management utilized in Texas and in the U.S. Enrollment limited to graduate students seeking initial teacher certification.

**EDUC 5352 Planning, Teaching, Learning Processes**  
3 Semester Credit Hours

A course emphasizing the various aspects of planning for teaching: the teaching/learning process; curriculum organization; use of instructional media and technology; instructional planning; and instructional and student evaluation, including standardized testing programs, teacher evaluation, and various forms of instructional and student evaluation planned and conducted by the teacher. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

**EDUC 5353 Classroom Management and the Student**  
3 Semester Credit Hours

A course emphasizing methods of organizing and managing a classroom, and student growth and development concepts and how they will affect classroom management. Enrollment limited to graduate students seeking initial teacher certification.

**EDUC 5354 Methods of Teaching Mathematics**  
3 Semester Credit Hours

A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

**EDUC 5355 Methods of Teaching Social Studies**  
3 Semester Credit Hours

A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

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1. Must be completed with a grade of “B” or better and each course contains 10 field observation hours.
EDUC 5356  Methods of Teaching Science
3 Semester Credit Hours
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students' prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5357  Strategies for Teaching in the Secondary School
3 Semester Credit Hours
A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5358  Applied Research and Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the finding, interpreting, and use of research to achieve a stated educational goal for each individual student. Concepts of tests and measurements will be emphasized for interpreting research results and gathering data for applied research. Students will develop and execute an applied inquiry project. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5390  Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
This course addresses contemporary issues in education. May be repeated for credit when the topic varies.

EDUC 5393  Internship I and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDUC 5352 - Planning, Teaching, Learning Processes* (or have completed EDUC 5352 - Planning, Teaching, Learning Processes*) and completed 30 contact hours of field observation.

EDUC 5394  Internship II and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification. 

Prerequisite: EDUC 5393 and 5352.

EDUC 5395  Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but are currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate."

Prerequisite: EDUC 5393, 5394 and 5327.

EDUC 5397  Practicum I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills for the beginning teachers during their third year on a "Probationary Certificate.” Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken concurrently with EDUC 5327 first semester of the third year on a "Probationary Certificate." This course may not be taken for graduate credit if the student has taken EDUC 5393, EDUC 5394 or EDUC 5395.

Prerequisite: EDUC 5327, 5393, 5394 and 5395.

EDUC 5398  Practicum II and Seminar for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
Beginning teachers who are currently in their third year of a "Probationary Certificate" are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised supervision for effective classroom teaching. Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second (and final) semester of the third year on a "Probationary Certificate."

Prerequisite: EDUC 5327, 5393, 5394, 5395 and 5397.

EDUC 5696  Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
Contemporary issues in educational technology; topics vary with professional interests and needs of participants. This "hybrid" course focuses upon enabling students to design effective instructional activities and materials for on-line instruction within a learning management system (LMS) environment. Students will acquire research-based knowledge about the design and development of effective on-line instruction which is consistent with established best practices. Emphasis will be placed upon development of on-line instruction in curricular areas specified by the instructor or selected by the student, subject to instructor approval.

Instructional Design and Educational Technology, MS

Program Description
The Master of Science Degree in Instructional Design and Educational Technology (IDET) is a fully online program oriented toward trainers, instructional designers, e-learning specialists, professional educators in K-12, higher education, and corporate, military, health, and public service sectors. The IDET program is consistent with state, national, and international standards, supported by the Association for Educational Communications and Technology (AECT), Association for Talent Development (ATD), International Association for K-12 Online Learning (iNACOL) standards and the International Society for Technology in Education (ISTE) standards. The IDET Program offers current professional grade technology tools and uses current design models with service sectors. The IDET Program's goal is to enable graduates to solve learning and performance problems by means of applying instructional design principles, emergent technology applications and software, learning theories, best practices, and relevant research. These projects are supported and encouraged to involve community and international collaborators and allows students a considerable amount of flexibility to explore areas of personal interest. IDET students work with their faculty advisor to develop a program of study emphasizing the aspects of Educational Technology they wish to focus on, fitting to each student’s learning and career goals.
Students acquire skills and knowledge in the following areas:

- describing the historical and theoretical underpinnings of the field;
- applying current mobile and computing applications and Internet resources useful in diverse learning environments;
- conducting project-based learning and associated learning events;
- applying learning theories and instructional strategies appropriate for given categories of human capabilities;
- using instructional design theory, models, principles, and processes;
- designing and developing instructional materials in a variety of technology-based formats;
- designing and developing instructional hypermedia with the latest course authoring tools;
- exploring emerging technology including virtual and augmented reality development;
- developing online instruction;
- exploring current STEM related technology and engineering applications, strategies, and pedagogies.

All students must successfully complete the IDET 5397 Instructional Design and Educational Technology Practicum (3 sch), including a program-progressive electronic portfolio and oral defense prior to graduation. Elective courses may not be taken. However, students who have earned appropriate graduate credit hours from a duly accredited college or university may be allowed to transfer a maximum of nine previous semester of graduate-level credit hours based upon approval by an assigned faculty advisor. Transferred courses may not be more than seven years old on the day of the student’s graduation.

Students in this program experience local and global collaboration through project-based learning with meaningful community service learning outcomes. Some of these projects involve partnerships with K-12, higher education, and local learning environments. The IDET.space platform, formerly interconnect.tamucc.edu, highlights some of those past and ongoing projects and opportunities.

Student Learning Outcomes

The IDET Master's Program is driven by three major Student Learning Outcomes (SLOs). Graduates will:

- Plan and develop effective, efficient instruction and related assessments using instructional design processes and principles to solve 21st century learning and performance problems.
- Design and develop complete, effective instruction for online learning environments in an active learning management system.
- Demonstrate knowledge, skills, and application of the field’s underlying theories, knowledge base, and tools in an electronic portfolio, or website.

For Additional Information

Website:
https://gradschool.tamucc.edu/degrees/education/instr_design_ed_tech.html

Campus Address:
ECDC, Room 207
361.825.2407
Susan.Elwood@tamucc.edu

Mailing Address:

Department of Curriculum, Instruction, and Learning Sciences, Unit 5834
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5834

Admission Requirements

Students are eligible to pursue graduate-level course work in Instructional Design and Educational Technology if they meet COEHD graduate admission requirements as specified in the COEHD’s Graduate Policies and Regulations (p. 61) section of this catalog.

Program Requirements

Prerequisites

Applicants entering into the program will be required to take an online module that assists learners in use of the learning management system at TAMU-CC.

Required Courses

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<th>Hours</th>
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<td>EDFN 5301</td>
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<tr>
<td>ERST 5302</td>
<td>Studies in Equality of Educational Opportunities * *</td>
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Core Courses

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<td>Instructional Design and Educational Technology Foundations</td>
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<td>IDET 5302</td>
<td>Computer Applications in Education *</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5303</td>
<td>Instructional Hypermedia</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5304</td>
<td>Instructional Design *</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5305</td>
<td>Instructional Design Applications *</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5310</td>
<td>Internet Resources in Education and Training</td>
<td>3</td>
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<tr>
<td>IDET 5320</td>
<td>Project Based Learning and Related Strategies for Technology Integration *</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5397</td>
<td>Instructional Design and Educational Technology Practicum</td>
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Specialization Courses

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<td>Design Strategies for Online Instruction and Learning Management Systems *</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5365</td>
<td>Instructional Materials Development for Learning Management Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 36

* Online offering
^ Blended offering

TXVSN Professional Development Award

All students who successfully complete IDET 5360 Design Strategies for Online Instruction and Learning Management Systems (3 sch) and IDET 5365 Instructional Materials Development for Learning Management Systems (3 sch) complete the professional development required to design and teach courses on the Texas Virtual School Network. A TAMUCC College of Education Professional Development Award will be granted to each student successfully completing those courses as documentation for TXVSN networks or other agencies. See http://txvsn.tamucc.edu/ for more information.
Instructional Design and Educational Technology—Foundations, Constructivist Environments, Design and Development Research Certificate

The IDET Foundations, Constructivist Environments, Design and Development Research Certificate will prepare educators and their colleagues in related fields (Curriculum and Instruction, Early Childhood Education, Elementary Education, Educational Leadership, Educational Administration, Reading, and Secondary Education) with whom they collaborate and supervise to provide research-based instructional technology designs in face-to-face, flipped, hybrid, and online learning environments. A series of three courses will prepare scholars to provide high quality design, instruction, and evaluation in utilizing principles and tenets of needs assessments, instructional systems design models, design current student-centered learning environments and activities, formative and summative evaluation, and design and development research investigation. Participating educators will be prepared to promote greater technology integration and implementation based upon current best practices in the field.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>IDET 5360</td>
<td>Design Strategies for Online Instruction and Learning Management Systems</td>
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</tr>
<tr>
<td>IDET 5365</td>
<td>Instructional Materials Development for Learning Management Systems</td>
<td>3</td>
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</table>

Total Hours: 6

* Online offering

Comprehensive Examination, Portfolio, and Exit Survey

All students are required to pass a comprehensive examination taken during their final semester of enrollment. All students must also develop and submit a professional portfolio which meets provided criteria. Students must also complete an exit survey prior to graduation.

Courses

IDET 5300 Instructional Design and Educational Technology Foundations
3 Semester Credit Hours (3 Lecture Hours)
Conceptual foundations of the field of Instructional Design and Educational Technology. Considers historical factors that contributed to the development of the field. Considers underlying systems concepts. Includes major publications and professional organizations in the field. Includes a research project.

IDET 5302 Computer Applications in Education
3 Semester Credit Hours (3 Lecture Hours)
Introduces the uses of technology in classroom environments. Examines and practices technology integration within classroom environments, using various applications, instructional and productivity software, as well as evaluation tools and resources. Addresses development of integrated instructional activities and a collaborative final project related to selected instructional goals.

IDET 5303 Instructional Hypermedia
3 Semester Credit Hours (3 Lecture Hours)
Application of a variety of computing applications integral to effective hypermedia development. Study of hypermedia design research. Production of a series of hypermedia objects in audio, video, and graphic production, as well as a final project related to selected instructional goals.

IDET 5304 Instructional Design
3 Semester Credit Hours (3 Lecture Hours)
Provides an introduction to instructional design theory, principles, and techniques and related learning theories. Considers various instructional design models including the Instructional Systems Development Model. Includes development of a final instructional design project. While there is no prerequisite for this course it is recommended that IDET 5304 be completed first.

IDET 5305 Instructional Design Applications
3 Semester Credit Hours (3 Lecture Hours)
Specification of research-based instructional strategies for various categories of learning outcomes. Applied use of educational technologies to design and develop instructional materials that are consistent with research findings in the field.

IDET 5310 Internet Resources in Education and Training
3 Semester Credit Hours (3 Lecture Hours)
Surveys uses of Internet resources for instruction. Considers design standards and software tools for web development. Considers instructional strategies involving use of Internet resources to support learning.

IDET 5320 Project Based Learning and Related Strategies for Technology Integration
3 Semester Credit Hours (3 Lecture Hours)
A course designed to enable participants to thoughtfully plan for integration of computers and other media in instruction. Examines the Project-Based Learning Model to engage learners in projects requiring investigation, analysis, synthesis, and presentation in real-world situations. Considers a rationale for technology integration, learning theory, evaluation of interactive media, strategies for technology integration, and related student assessment.

IDET 5360 Design Strategies for Online Instruction and Learning Management Systems
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide educators with an overview of the instructional and programmatic factors that should be considered when designing, developing, and delivering an online course. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TvSN) standards. This course considers the specific needs of online students as well as the pedagogical and technical skills necessary to succeed when teaching online. Aspects of course website usability and accessibility are also addressed.
IDET 5365  Instructional Materials Development for Learning Management Systems
3 Semester Credit Hours (3 Lecture Hours)
A course addressing research and best practices related to the development of instructional activities and materials for online instruction within a learning management system environment. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. Consistent with those standards, researches sound instructional strategies for promoting student success. Covers legal, ethical, and safe behavior related to technology use. Considers research on the development and delivery of assessments and assignments that meet standards-based learning goals. Reviews research on assessment and measurement of learning and use of data from assessment and other sources to formatively modify content.

IDET 5380  Educational Technology for Administrators
3 Semester Credit Hours (3 Lecture Hours)
This course serves the modern administrator regarding problems of use, selection, and management of administrative educational technology at the campus level.

IDET 5390  Professional Seminar
3 Semester Credit Hours
Contemporary issues in educational technology; topics vary with professional interests and needs of participants.

IDET 5396  Directed Individual Study
3 Semester Credit Hours

IDET 5397  Instructional Design and Educational Technology Practicum
3 Semester Credit Hours (3 Lecture Hours)
Students will design and assemble their IDET Masters journey professional portfolio and complete a service-based, on-the-job guided practice in the planning and use of educational technologies and instructional design skills within a program-approved learning environment.

IDET 5696  Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

IDET 6301  Foundations of Instructional Design
3 Semester Credit Hours
Explores theoretical, conceptual, technological and historical foundations of instructional design and educational technology. Examines the historical development of using technology for educational purposes. Includes intensive examination and application of contemporary learning theories and instructional design principles and processes related to use of technology in instructional environments.

IDET 6315  Project-Based Learning Types and Emerging Technologies
3 Semester Credit Hours
This course takes a deeper look regarding emerging technologies and research-based practices in project-based and related learning environments. Students will be invited into a project-based experiential process that includes a local service outlet. Extension of Web 2.0, web conferencing, audio, emerging technologies and pedagogical practices are explored and integrated into their research of their project. Students review research on project-based and related learning environments, critically analyze the research, and develop a related theoretically-based paper for submission to a professional publication or conference.

IDET 6345  Visual Literacy
3 Semester Credit Hours
This fully online course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Visual literacy is the ability to understand and use images, including the abilities to describe cultural and psychological meanings of images one encounters, as well as to think, learn, and express oneself with images. Instructional design and development skills learned will be based on theoretical and research issues related to visual literacy. Because the course is taught via the Web at a distance, learners will have to provide their own PowerPoint, graphics development, spreadsheets, and word processing software or use those provided in public spaces. Computer labs at TAMU-CC have the necessary software. Any work may be done in this class in collaboration with others from the class. Students are expected to work with others as much as time permits and are expected to learn from and teach each other about visual literacy. The course is available at http://Bb9.tamucc.edu.

IDET 6360  Design Strategies for Online Instruction and Learning Management Systems
3 Semester Credit Hours
Addresses concepts, structures, and design strategies for effective online instruction through exploration within a learning management system. Researches and develops experiential strategies for active learning, interaction, and collaboration. Considers student diversity, academic needs and accommodations, professional development, and online interactions. Also addresses arranging media and content within an LMS. Course content is consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards.

IDET 6365  Instructional Materials Development for Learning Management Systems
3 Semester Credit Hours
A course addressing research and best practices related to the development of instructional activities and materials for online instruction within a learning management system environment. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. Consistent with those standards, researches sound instructional strategies for promoting student success. Covers legal, ethical, and safe behavior related to technology use. Considers research on the development and delivery of assessments and assignments that meet standards-based learning goals. Reviews research on assessment and measurement of learning and use of data from assessment and other sources to formatively modify content.
Kinesiology, MS

Mission
The mission of the Department of Kinesiology at Texas A&M University-Corpus Christi is to prepare qualified practitioners in athletic training, exercise science-related industries, physical education, sport management, pre-allied health disciplines, and sport-science/conditioning in the South Texas region and beyond. Faculty are committed to helping students achieve a market-ready status by implementing high-impact teaching practices, engaging in active scholarship and research, and performing service to the university, professions, and larger community.

Program Description
Program Description and Purpose
The Master of Science in Kinesiology with an emphasis in Sport Science is designed to prepare professionals in the multi-faceted disciplines of athletic performance, strength and conditioning, sport coaching, allied health, fitness and quality of life. These disciplines include, but are not limited to, the application and in-depth study of biomechanics, exercise physiology, leadership/management of sport, motor performance, nutrition, assessment of sport performance, sport psychology, and strength & conditioning. Thus a major purpose of this program is to bridge the gap between science and sports as well as preparation for advanced research (e.g., Ph.D.). The program is internationally recognized by the National Strength and Conditioning Association (NSCA) as an Education Recognition Program (ERP) that maintains the educational guidelines required by the NSCA. The program features a vibrant community of scholars that are nationally and internationally recognized in the sport science discipline. Students have the choice of three degree options:

1. Non Thesis/Research Project,
2. Non Thesis/Comprehensive Exams, or

Please see the course catalog for a full description of the expectations of these options. Course delivery options include: traditional, online, and hybrid and a complete online degree program is available.

Program Delivery
The Master of Science in Kinesiology is available in two delivery options:

1. Online - Courses are delivered 100% online by the nationally recognized and accredited program. All graduate faculty are fully certified online instructors;
2. Hybrid - Courses are delivered by a combination of traditional face to face, hybrid, and online courses.

Customizing the Program
The program is specifically designed with a sport science emphasis. Program goals (Student Learning Outcomes), curriculum design and much graduate faculty research focuses on the science behind improving athletic/sport performance. However, the program offers ample flexibility for students to customize their degree to fit their specific career goals. Regardless of the thesis or non-thesis option, students have an array of elective kinesiology and non-kinesiology course options to choose from to personalize their degree plan. This may be further augmented by internships, independent study, and research projects.

Careers
This program prepares individuals for vocations as sport scientists and strength & conditioning coaches/trainers. The degree design also contributes to the professional development of tactical strength & conditioning trainers, certified physical education teachers, sport coaches, allied health professionals, as well as managers of sport. Finally, the program prepares candidates for sport science certifications from professional organizations such as the National Strength & Conditioning Association.
Association, American College of Sports Medicine, and other professional agencies.

**Impact**
The emphasis of sport science in this degree program is designed to improve sport/human performance through applied research and practice.

The program features Sport Science Research Labs (Exercise Physiology; Biomechanics; Motor Learning/Development; and Athletic Training) in Island Hall. These labs have state of the art equipment/hardware/software that students can use in class and with their research when applicable. Students also have opportunities to be involved in clinics, continuing education programs, and sport science activities that are facilitated by the Department of Kinesiology. These include those that focus on improvement of athletic performance, inhibitors of sport performance, and the impact of disease and disability/injury on health and well-being as well as the influence on sport performance.

**Student Learning Outcomes**
Students will:
- Demonstrate theoretical and practical knowledge in the field of sport science.
- Demonstrate knowledge and professional leadership skills in relation to the field of sport science.
- Produce transformational sport science and sport performance research by applying the principles of the scientific method and statistics to collect, analyze, and interpret sport science-related data.
- Apply the principles of sport physiology, sport biomechanics, and motor development in designing appropriate strength and conditioning programs for clients of various populations.
- Apply selected principles of psychology and sociology to improve human performance.

**Academic Standards**
Students pursuing a Master of Science Degree in Kinesiology must maintain the following standards:

1. A cumulative GPA of 3.0 or better.
2. Only two courses with grades of C can be applied to the degree.
3. No course with a grade below a C will be applied toward a degree.
4. All requirements, including coursework at Texas A&M University–Corpus Christi and transfer credit coursework, must be completed within seven (7) calendar years from the date of initial enrollment in coursework.

**Course Sequencing**
Students must take KINE 5307 Research Design in Kinesiology (3 sch) and KINE 5311 Statistics in Kinesiology (3 sch) prior to the Capstone Experience - Graduate Research Project.

**For Additional Information**
**Website:** http://gradschool.tamucc.edu/degrees/education/kinesiology.html

**Campus Address:** Island Hall, Suite 351

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**Phone (361) 825-6072**

**Mailing Address:** Kinesiology Graduate Committee Chair Department of Kinesiology Texas A&M University–Corpus Christi 6300 Ocean Drive, Unit 5820 Corpus Christi, TX 78412-5820

**Admission Requirements**
Students are eligible to pursue graduate-level course work in Kinesiology if they meet the University and COEHD graduate admission requirements as specified in the Graduate Policies and Procedures (p. 61) section of this catalog. Additional kinesiology requirements and restrictions are listed below:

1. Applicants whose undergraduate major or minor is not Kinesiology and/or do not have equivalent undergraduate coursework are highly encouraged to take undergraduate prerequisite courses for KINE 5311 Statistics in Kinesiology (3 sch), KINE 5312 Sport Physiology (3 sch), and KINE 5327 Sport Biomechanics (3 sch).
2. If an applicant’s GPA is below 3.0 in their last sixty hours, they may be admitted under “conditional” status. In such cases, the department will follow the procedures that are outlined in the catalog for the University and the College of Education and Human Development.

The kinesiology graduate program committee evaluates all applications and makes admission decisions.

**Transfer of Graduate Credits**
No more than nine hours of graduate level study may be transferred from another institution to a student’s degree plan. These hours must be from accredited institutions of higher education and recommended by the Kinesiology program graduate committee. No course with a grade of less than ‘B’ will be accepted as transfer credit.

**Program Requirements**

**Option I-Non-Thesis Graduate Project**

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<td>KINE 5308</td>
<td>Leadership in Kinesiology</td>
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<td>KINE 5311</td>
<td>Statistics in Kinesiology</td>
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<tr>
<td>KINE 5312</td>
<td>Sport Physiology *</td>
<td>3</td>
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<tr>
<td>KINE 5327</td>
<td>Sport Biomechanics *</td>
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**Required Courses**
Select at least three of the following: (additional courses can be utilized as electives below) 9

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<td>KINE 5313</td>
<td>Athletic Testing *</td>
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<td>KINE 5314</td>
<td>Principles of Strength and Conditioning *</td>
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<td>Sport Psychology *</td>
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<tr>
<td>KINE 5390</td>
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</table>
KINE 5394  Professional Field Experience *

**Applied Electives**
Graduate-level courses to be selected with permission of faculty advisor. Choices may include, but are not limited to the Kinesiology courses listed above.

**Capstone Experience**
KINE 5397  Graduate Research Project in Kinesiology *

**Total Hours**  36

*  Online offering

**Capstone Experience - Graduate Research Project in Kinesiology**
The research project option is designed for students that want to gain more knowledge about a specific topic area through the scientific process that goes well beyond what they can achieve through an academic course. The research project is a less intense version of the thesis and more of a pilot study. The project should be completed in one semester with the possibility of more time depending upon the student's topic and design. This is an involved process and the final product includes:

1. Journal Abstract;
2. Journal Manuscript (choice of journal is decided by project chair);
3. Poster Presentation; and
4. Power Point Presentation (Defense).

**Option II-Non-Thesis Comprehensive Exam**

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>KINE 5307</td>
<td>Research Design in Kinesiology *</td>
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<tr>
<td>KINE 5308</td>
<td>Leadership in Kinesiology *</td>
<td>3</td>
</tr>
<tr>
<td>KINE 5311</td>
<td>Statistics in Kinesiology *</td>
<td>3</td>
</tr>
<tr>
<td>KINE 5312</td>
<td>Sport Physiology *</td>
<td>3</td>
</tr>
<tr>
<td>KINE 5327</td>
<td>Sport Biomechanics *</td>
<td>3</td>
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</table>

**Required Courses**
select at least four of the following: (additional courses can be utilized as electives below)

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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>KINE 5306</td>
<td>Sport Nutrition *</td>
<td></td>
</tr>
<tr>
<td>KINE 5313</td>
<td>Athletic Testing *</td>
<td></td>
</tr>
<tr>
<td>KINE 5314</td>
<td>Principles of Strength and Conditioning *</td>
<td></td>
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<tr>
<td>KINE 5315</td>
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<td></td>
</tr>
<tr>
<td>KINE 5325</td>
<td>Program Design for Resistance Training *</td>
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</tr>
<tr>
<td>KINE 5338</td>
<td>Motor Development in Sport *</td>
<td></td>
</tr>
<tr>
<td>KINE 5340</td>
<td>Sport Psychology *</td>
<td></td>
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<tr>
<td>KINE 5390</td>
<td></td>
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</tr>
<tr>
<td>KINE 5394</td>
<td>Professional Field Experience *</td>
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</tr>
</tbody>
</table>

**Applied Electives**
Graduate-level courses to be selected with permission of faculty advisor. Choices may include, but are not limited to the Kinesiology courses listed above.

**Total Hours**  36

*  Online offering

**Option III-Thesis Option**
The thesis option requires departmental approval.

<table>
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<td>KINE 5312</td>
<td>Sport Physiology *</td>
<td>3</td>
</tr>
<tr>
<td>KINE 5327</td>
<td>Sport Biomechanics *</td>
<td>3</td>
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**Required Courses**
Select at least three of the following: (additional courses can be utilized as electives below)

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<td>KINE 5390</td>
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</tr>
<tr>
<td>KINE 5394</td>
<td>Professional Field Experience *</td>
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</tbody>
</table>

**Applied Electives**
Graduate-level courses to be selected with permission of faculty advisor. Choices may include, but are not limited to the Kinesiology courses listed above.

**Capstone Experience**
KINE 5698  Thesis in Progress

**Total Hours**  36

*  Online offering

**Capstone Experience - Thesis in Progress**
The thesis option is designed for students that want to gain extensive experience in research and/or greater knowledge about a specific topic area. It is also designed for those that anticipate more advanced research (e.g., Ph.D.).

The thesis option is not allowed for all students. Interested students must apply for the thesis option after the successful completion of KINE 5307 Research Design in Kinesiology (3 sch)*. Students are required to prepare a proposal for their thesis and defend that proposal for the graduate committee. If accepted the student may proceed with the thesis option. Students whose proposal is not accepted must pursue the Graduate Research Project option.

The thesis will require a minimum of two semesters of work and possibly more depending upon the student's topic and design. This is a very involved process and though the product is the same as in the Research Project, the rigor and expectation is much higher, thus it is six semester hours of credit. The final product includes:

1. Journal Abstract;
2. Journal Manuscript (choice of journal is decided by thesis chair);
3. Poster Presentation; and
4. Power Point Presentation (Defense).

Courses

KINE 5306  Sport Nutrition
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide scientific evidence for the use of nutrient ingestion to enhance sport performance and maintain optimal health. Special emphasis will be placed on the chemical and biological changes caused by the ingestion of specific nutrients. In this course the student will learn to utilize current nutrition research to enhance the athlete's energy systems within various categories of sport.

KINE 5307  Research Design in Kinesiology
3 Semester Credit Hours (3 Lecture Hours)
The application of fundamental research methods to the design and development of a research proposal in kinesiology.

KINE 5308  Leadership in Kinesiology
3 Semester Credit Hours (3 Lecture Hours)
This course assists students in identifying and defining leadership in formal and non-formal kinesiology settings. The theoretical foundations interweave: (a) formation of self-identification and self-awareness as a leader, (b) development of applied knowledge and skills, and (c) real-world application of effectively functioning as both a follower and a leader, thus developing a more complete and holistic leadership framework.

KINE 5311  Statistics in Kinesiology
3 Semester Credit Hours (3 Lecture Hours)
A study of basic statistical concepts and their application to research problems in kinesiology. Topics include issues related to descriptive and inferential statistics. Recommended
Prerequisite: KINE 4311.

KINE 5312  Sport Physiology
3 Semester Credit Hours (3 Lecture Hours)
This course expands basic undergraduate exercise physiology principles and focuses on the role of exercise physiology in sports performance, applied and research settings. Recommended

KINE 5313  Athletic Testing
3 Semester Credit Hours (3 Lecture Hours)
An advanced assessment course designed to provide techniques for physiological, athletic, and sport-specific tests associated with athletic performance. Test selection, test administration, data analysis, and appropriate evaluation techniques will be presented.

KINE 5314  Principles of Strength and Conditioning
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to provide theoretical and practical knowledge of the physiological, biomechanical, and administrative aspects of designing and supervising strength and conditioning programs for various populations.

KINE 5325  Program Design for Resistance Training
3 Semester Credit Hours (3 Lecture Hours)
This course presents information on the process of designing scientifically based resistance training programs, modifying and adapting programs to meet the needs of special populations, and understanding how designing programs works in the real world.

KINE 5327  Sport Biomechanics
3 Semester Credit Hours (3 Lecture Hours)
This course provides an exploration of movement kinetics and kinematics through the framework of sports, physical activity, and associated injury mechanisms. Further emphasis will be on identifying viable research questions and appropriate methods (including instrumentation) to pursue those questions. Recommended

KINE 5338  Motor Development in Sport
3 Semester Credit Hours (3 Lecture Hours)
This course address the theory and application of human motor development as it relates to the acquisition of motor skills, with a focus on sport performance. The course emphasizes how professionals in the field of sport science should utilize this understanding to serve various client populations throughout the lifespan.

KINE 5340  Sport Psychology
3 Semester Credit Hours (3 Lecture Hours)
A study of the theory and application of psychology as it applies to human behavior in sport and physical activity.

KINE 5394  Professional Field Experience
3 Semester Credit Hours
A graduate-level field-based experience to provide the student the opportunity to apply knowledge and theory related to exercise and sport science. This course is an elective course and listed in the Supplemental Course section of the degree plan. This course may also be taken at any time during the student's degree with approval of their faculty mentor.

KINE 5397  Graduate Research Project in Kinesiology
1-3 Semester Credit Hours (1-3 Lecture Hours)
The research project is an alternative to the thesis and three semester hours of credit. The project should be completed in one semester of work with the possibility of more time depending upon the student's topic and design. This is an involved process and the final product includes: 1) Journal Abstract; 2) Journal Manuscript (choice of journal is decided by project chair); 3) Poster Presentation; and 4) Power Point Presentation (Defense). Unlike the thesis, all students that are fully accepted to the program automatically are eligible for the research project.
Prerequisite: KINE 5307 and 5311.

KINE 5690  Professional Seminar
1-6 Semester Credit Hours (1-6 Lecture Hours)
PROFESSIONAL SEMINAR Contemporary issues in Kinesiology: topics vary with professional identification of participants.

KINE 5694  Directed individual Study
1-6 Semester Credit Hours
Thesis in progress requires departmental approval. Investigative study on selected problems by students with particular needs. May be repeated when topics vary.
Professional Counseling, MS

Accreditation

The Department of Counseling and Educational Psychology offers programs leading to the Master of Science degrees in Professional Counseling and Professional School Counseling as well as the Doctor of Philosophy degree in Counselor Education. Programs in the Department of Counseling and Educational Psychology are accredited by The Council for the Accreditation of Counseling and Related Educational Programs (CACREP), 500 Montgomery Street, Suite 350 Alexandria, VA 22314.

Mission Statement

The Department of Counseling and Educational Psychology at Texas A&M University-Corpus Christi, devoted to excellence in instruction, research, and service, prepares graduate-level counselors and counselor educators, representing diverse backgrounds and experiences, to facilitate impactful societal changes at the local, state, national, and international levels.

Program Description

The Master of Science in Professional Counseling (60 semester hours) offers training in three major areas:

- Clinical Mental Health Counseling
- Marriage, Couple, and Family Counseling
- Addictions Counseling

All degree plans are designed to meet the current educational requirements for the Texas Licensed Professional Counselor (LPC) credential as specified by the Texas State Board of Examiners of Professional Counselors. The marriage, couple, and family counseling emphasis degree plan includes coursework meeting all current Texas Licensed Marriage and Family Therapist (LMFT) educational requirements. Each students’ personal and professional development is periodically reviewed by faculty. Students who fail to demonstrate basic knowledge, personal skills, communication skills, interpersonal skills, and/or counseling skills will be asked to seek remediation or may be dismissed from the program.

Student Learning Outcomes

Students will:

- Demonstrate a professional counselor identity
- Demonstrate the knowledge of the fundamental components of counseling
- Demonstrate adherence to professional ethical standards and the practice of advocacy
- Demonstrate effective counseling/clinical skills with diverse populations

Academic Standards

Students pursuing a Master of Science Degree in Professional Counseling must maintain the following standards:

1. A cumulative GPA of 3.0 or better.
2. Only two courses with a grade of C can be applied to the degree.
3. No course with a grade below C will be applied toward the degree.
4. No grade below B in Practicum or Internship will be applied toward the degree.
5. Students may not proceed to practicum or internship unless they meet the standards in 1-3 above.
6. All requirements, including coursework at Texas A&M University—Corpus Christi and transfer credit coursework, must be completed within seven (7) calendar years from the date of initial enrollment in coursework.

Fitness to Practice

In addition to meeting or exceeding academic standards, students pursuing a Master of Science Degree in Professional Counseling must meet fitness to practice standards that are assessed by faculty throughout the program. These standards include demonstration of emotional and mental fitness in their interaction with others as well as conformance with professional counseling associations and State of Texas codes of ethics and standards of practice.

At regular intervals throughout the program, and at any time a faculty member deems it advisable, students will be evaluated on the Professional Issues and Behavior Rating Scale. Students who fail to demonstrate fitness or conformance to appropriate codes may be asked to enter a remediation plan to remain in the program. If a remediation plan is developed, students must demonstrate satisfactory remediation prior to being allowed to proceed toward graduation. Specific information concerning fitness to practice and codes to which students are expected to conform may be found in the Department of Counseling and Educational Psychology Master’s Student Handbook.

Experiential Learning

Students in the Department of Counseling and Educational Psychology Master of Science programs will, in some coursework, be expected to participate in experiential learning that will involve some degree of self-exploration and self-reflection. Some training components will encourage personal growth and self-disclosure as part of the training process. While faculty members will exercise professional judgment and make ethical and responsible efforts to ensure the well-being of students when designing such experiences, they recognize that personal growth, reflective practice, and self-exploration can generate discomfort. Students are encouraged to engage in personal counseling. In addition, students who are unable to make use of reasonable opportunities for personal growth and reflection or who are unwilling to participate in appropriate self-disclosure may be referred for departmental remediation processes. Students who have concerns about participating in such activities may wish to speak with a departmental advisor prior to entering the program.
Admission Requirements

Students are eligible to pursue graduate-level course work in Counseling if they meet COEHD graduate admission requirements as specified in the COEHD’s Graduate Policies and Regulations (p. 61) section of this catalog.

The above minimum criteria, along with the following factors, are reviewed by the Department of Counseling and Educational Psychology faculty selection committee in determining admissions.

Deadline for Master of Science Student Applications are:
- March 1 - fall semester
- October 1 - spring semester
- March 1 - summer semester

Requirements
- Undergraduate performance – GPA (3.0 in last 60 hours)
- Graduate level work with a B grade or higher
- Quality and relevancy of recommendations
- Counseling-related work experiences
- Interview
- Three letters of recommendation
- 500-700 word written essay, including one's personal/professional career plans, goals, and a statement indicating one's ability to work individually and in groups with diverse populations.

Students who do not meet the requirements for full admission into the Department of Counseling and Educational Psychology may be admitted on conditional status and take courses approved by the faculty. This conditional status applies to the first nine hours of the students' program of study. Within these nine hours, students are required to take:
- CNEP 5304 Introduction to Counseling (3 sch), CNEP 5308 Counseling Theories (3 sch), and CNEP 5314 Theory and Practice of Multicultural Counseling (3 sch). Students must earn a grade of B or higher in each course taken during their conditional admit status in order to proceed to full admission.

Program Requirements

The Master of Science in Professional Counseling is a 60 semester hour program of study that prepares students to become license-eligible mental health providers. The Professional Counseling degree has three emphasis areas: Clinical Mental Health Counseling; Marriage, Couple, and Family Counseling; and Addictions Counseling. Degree plans for each emphasis area are as follows:

Clinical Mental Health Counseling Emphasis

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<td>Introduction to Research</td>
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<tr>
<td>CNEP 5304</td>
<td>Introduction to Counseling</td>
<td>3</td>
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<tr>
<td>CNEP 5306</td>
<td>Career Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5308</td>
<td>Counseling Theories</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5312</td>
<td>Addictions Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5314</td>
<td>Theory and Practice of Multicultural Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5327</td>
<td>Ethical and Legal Issues in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5328</td>
<td>Abnormal Human Behavior</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5354</td>
<td>Developmental Issues in Human Personality and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>CNEP 5361</td>
<td>Group Counseling</td>
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</tr>
<tr>
<td>CNEP 5371</td>
<td>Psychometrics</td>
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<td>CNEP 5381</td>
<td>Psychodiagnosis and Treatment Strategies</td>
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</tr>
<tr>
<td>CNEP 5384</td>
<td>The Counseling Process</td>
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<tr>
<td>CNEP 5397</td>
<td>Practicum</td>
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<td>CNEP 5698</td>
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Special Emphasis Courses

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<tr>
<td>CNEP 5320</td>
<td>Introduction to Marriage, Couple, and Family Counseling</td>
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</tr>
<tr>
<td>CNEP 5375</td>
<td>Clinical Mental Health Counseling*</td>
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</tr>
<tr>
<td>CNEP 5322</td>
<td>Strategies in Family Counseling*</td>
<td>3</td>
</tr>
<tr>
<td>or CNEP 5324</td>
<td>Counseling Couples</td>
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</table>

Elective Courses

Select three hours 3

Total Hours 60

^ Blended offering

Marriage, Couple and Family Counseling Emphasis

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<tr>
<td>EDFN 5301</td>
<td>Introduction to Research</td>
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<td>Introduction to Counseling</td>
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<td>Career Counseling</td>
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<td>Counseling Couples</td>
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</table>

Total Hours 60
This course covers classic and contemporary theories of career development, counseling, and decision making, including: the use of career/occupational resources, testing, computer-assisted guidance systems, career development planning, assessing factors contributing to career development, advocating for diverse clients, using assessment tools, facilitating client skill development, and using ethical and culturally relevant strategies for addressing career development including the clients’ life experiences. Career services in various settings will be discussed. Multicultural issues and needs of special populations will be presented. There are no prerequisites for this course.

**CNEP 5306 Career Counseling**
3 Semester Credit Hours (3 Lecture Hours)

This course is designed to provide an overview of the theoretical foundations associated with best-practices for counseling treatment planning and intervention. Topics addressed in this course include the historical development and contemporary application of counseling theories, review of key concepts that influence client change, essential features of the therapeutic process, and considerations for culturally-relevant and setting-specific applications. Students will be expected to complete designated readings, work in small groups, complete experiential activities, and demonstrate learning across several modes of evaluation. There are no prerequisites for this course.

**CNEP 5308 Counseling Theories**
3 Semester Credit Hours (3 Lecture Hours)

This course is designed to provide students with an understanding of issues on death, dying, loss, and the impact of grief. Topics addressed in this course include various types of loss, including non-death related, conceptualizations of grief and mourning across the lifespan, evidence-based interventions to support the dying and bereaved individuals, and strategies for identifying and intervening with those who have clinically significant complicated grief. Students will be expected to explore their own grief reactions as well as examine the societal, cultural, and familial expectations surrounding grief and death rituals. There are no prerequisites for this course.

**CNEP 5309 Grief and Loss Counseling**
3 Semester Credit Hours (3 Lecture Hours)

This course is designed to provide students with the knowledge and skills necessary to address a wide range of issues in the context of addiction counseling, treatment, and prevention programs, as well as in a broader mental health counseling context. Topics addressed in this course include: the history and development of addiction counseling; principles and philosophies of addiction-related self-help; neurological, behavioral, psychological, physical, and social effects of psychoactive substances and addictive disorders on the user and significant others; cultural factors related to addiction and addictive behavior. Students will examine specific treatment strategies applicable to the biopsychosocial issues related to addictions, as well as current ethical and professional issues in the field. Students will be expected to articulate strategies for helping clients identify the effects of addiction on life problems and effectively partner with clients to reduce the persisting negative effects of substance use, abuse, dependence, and addictive disorders. There are no prerequisites for this course.

**CNEP 5312 Addictions Counseling**
3 Semester Credit Hours (3 Lecture Hours)

This course is an orientation to the profession of counseling, its history, professional standards, code of ethics, credentials, areas of specialization, and the development of skills necessary to create a helping relationship. It covers the counselor’s professional identity in a variety of settings and roles. Opportunities are provided for students to discover through self-awareness their suitability for the helping profession.
CNEP 5313 Theories and Techniques in Substance Abuse Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of addictions treatment and the counseling dynamics involved, as well as the significance and impact of addictions within our society. Topics addressed in this course include: theories and models of addiction related to substance use as well as behavioral and process addictions; techniques and interventions related to treating substance abuse and other addictions; principles, models, and documentation formats of biopsychosocial case conceptualization and treatment planning; and regulatory processes and substance abuse policy relative to service delivery opportunities in addiction counseling. Students will be expected to describe various methods of screening, assessment, and testing for addiction; articulate pertinent legal and ethical considerations specific to addiction counseling; and evaluate and identify individualized strategies and treatment modalities relative to clients’ stage of dependence, change, or recovery.

CNEP 5314 Theory and Practice of Multicultural Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the cultural differences of special populations of people. Emphasis on ethical use of appropriate counseling techniques for use with the major racial/ethnic groups and other special populations of people such as those who are physically or emotionally disabled, older, of different genders or of different sexual orientation. Topics addressed in this course include: theories and models of multicultural counseling; multicultural counseling competencies; cultural identity development; worldview, power, privilege, and oppression, social justice, and advocacy. Students will be expected to articulate effective strategies for working with and advocating for diverse populations; recognize the impact of heritage, attitudes, beliefs, and acculturative experiences on individuals’ view of self and others; and identify and eliminate barriers, prejudices, and processes of intentional and unintentional oppression and discrimination at the individual and institutional level. There are no prerequisites for this course.

CNEP 5315 Consultation and Responsive Services in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide both indirect services to children and adolescents via effective consultation and direct responsive services in the school setting. Topics addressed in this course include consultation models, crisis counseling models, crisis intervention, and school counselor roles in consultation and crisis response. Students will be expected to develop interventions in which consultation is the primary method of delivery, appropriately respond to crisis situations encountered in a school environment, create responsive services programming based on applicable data, and demonstrate skills needed for effective consultation and responsive services, and articulate the connection between consultation and responsive services. There are no prerequisites for this course.

CNEP 5316 Developmental School Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of the planning, design, implementation, and evaluation of comprehensive, developmental school counseling programs. The course includes student collaboration with existing school counseling programs to facilitate student professionalism and competence in consultation, strategy selection and implementation, program delivery, and community referral. This course is a requirement for eligibility to take the TExES school counselor examination.

CNEP 5317 Play Therapy: a Counseling Intervention
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for the purpose of studying the theory, techniques, and issues related to counseling children using play therapy. The class will consist of lecture, group discussion, video presentations, experiential activities and case studies. Designed for both school and community counselors.

CNEP 5318 Consultation in School Settings
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide indirect services to children and adolescents through effective consultation with parents, teachers, administrators and external referral sources. The emphasis of the course is on the acquisition of skills that follow a logical consultation model. The course has a didactic and experiential learning component. Students will become sensitized to socio-cultural diversity issues as they impact consultation, and to the ethical and legal issues pertaining to working in the schools. Current research will be used to guide the consultation process. Prerequisite: (CNEP 5304 and 4308).

CNEP 5319 Introduction to Clinical Mental Health Counseling
3 Semester Credit Hours (3 Lecture Hours)
Research, identification, and design of systemic models of prevention and intervention that foster the healthy development of individuals in school and community settings. Focus will be both on assessment and implementation of culturally respectful approaches that invite collaboration with the family, school, community, and other contextual resources of children, adolescents, and adults.

CNEP 5320 Introduction to Marriage, Couple, and Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an introduction to marriage, couple, and family counseling. Topics addressed in this course include history and development of marriage, couple, and family counseling; theories and models of family systems and dynamics; theories and models of marriage, couple, and family counseling; and sociology of the family, family phenomenology, and family of origin theories. In addition, roles and settings of marriage, couple, and family counselors as well as professional credentialing and preparation of marriage, couple, and family counselors will be addressed. Students will be expected to successfully complete a variety of tasks, including projects, presentations, examinations, and role plays.

CNEP 5321 Advanced Strategies in Process Addictions and Substance Abuse
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to equip students with advanced strategies, techniques, and interventions for treating substance use disorders as well as behavioral and process addictions. Topics addressed in this course include: the diagnostic process and use of current diagnostic classification systems found in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD); assessment of biopsychosocial and spiritual history relevant to addiction; classifications and contraindications of commonly prescribed psychopharmacological medications for appropriate medical referral and consultation; psychological tests and assessments specific to addiction counseling; and the importance of vocation, family, social networks, and community systems in the treatment and recovery process for substance use disorders, behavioral addictions, and process addictions. Students will be expected to effectively assess, diagnose, and treat a variety of addictive disorders and process addictions using contemporary evidence-based practices. Prerequisite: CNEP 5313.
CNEP 5322 Strategies in Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on clinical applications of major theoretical models of family counseling. Topics addressed in this course include principles and models of assessment and case conceptualization from a systemic perspective; interventions and techniques of marriage, couple, and family counseling; and conceptualizing and implementing treatment. Students will be expected to demonstrate application of various approaches, including both case conceptualization and interventions, from a variety of theoretical models via case studies, role plays, and other course activities.
Prerequisite: CNEP 5320.

CNEP 5323 Counseling for Holistic Wellness
3 Semester Credit Hours (3 Lecture Hours)
This course provides an introduction and critical review of contemporary theory and research in models of holistic wellness including consideration of experiential and interventions that address lifestyle variables. The course also discusses the role of the professional counselor as interventionist in a variety of applied settings in assisting clientele in moving toward optimal health (not just absence of illness), through an integration of physical, psychological, social, spiritual and personal choice components of physical health and lifestyle management.

CNEP 5324 Counseling Couples
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the assessment and treatment of couple relationships. Major topics include but are not limited to research- and efficacy-based treatment models, legal and ethical standards, couples sexual counseling, premarital counseling and preventive psychoeducational approaches, gender and issues of diversity impacting couple relationships, research relevant to couple counseling, and societal trends.
Prerequisite: CNEP 5320.

CNEP 5326 Family Counseling for Child and Adolescent-Focused Issues
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on evidence-based family treatment of problems that are child- and adolescent-focused. Topics addressed in this course include principles and models of assessment and case conceptualization from a systemic perspective; use of appropriate assessments in family therapy; impact of trauma and addictions on families; evidence-based models and interventions in family counseling for problems that are child- and adolescent-focused; and conceptualization planning of intervention strategies in family counseling. Students will be expected to demonstrate the ability to utilize assessments, conceptualize treatment, and plan specific interventions to address child and adolescent related issues in family counseling.
Prerequisite: CNEP 5320.

CNEP 5327 Ethical and Legal Issues in Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course offers in-depth consideration of ethical and legal issues that affect the practice of counseling in clinical mental health counseling; marital, couple, and family counseling; addictions counseling; and school counseling settings. The course will assist students in understanding and formulating sound positions on a variety of major issues related to the field of counseling. Students are expected to be familiar with a variety of ethical codes as well as laws regulating the profession. Students will be expected to utilize ethical-decision-making models and codes of ethics to analyze cases, analyze content appropriate to their program emphases, apply relevant codes of ethics and laws, and demonstrate understanding of critical legal and ethical content.

CNEP 5328 Abnormal Human Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the principles of understanding the dysfunction in human behavior and development, including the impact of disaster, crises, and other trauma-causing events on developmental processes. Students will learn how dysfunctional behavior manifests and factors that increase one's vulnerability to abnormal human behavior. The primary topics of this course include theories of normal and abnormal personality development and the effects of crisis, disasters, and other trauma on diverse individuals across the lifespan. Students will be expected to demonstrate understanding of abnormal personality development as well as the impact of trauma-causing events on personality development via successful completion of tasks in various assignments which may include case studies, presentations, and examinations.

CNEP 5329 Cultural Immersion: Diversity of Spanish Speakers
3 Semester Credit Hours (3 Lecture Hours)
This course addresses cultural issues in Spanish-speakers such as concept of family, authority and social organization, communication method, thought, formality of address and spirituality. This course will be offered both as an online course and a study abroad experience. Students who have an opportunity to travel may take this course when it is offered in a Spanish-speaking country.

CNEP 5330 Professional and Technical Spanish
3 Semester Credit Hours (3 Lecture Hours)
This on-line course is an orientation to counseling clients in Spanish. Students will become familiar with terms to use to facilitate a session in Spanish. Professional counseling concepts include mental health, counseling techniques, communication skills, understanding and problem solving, goal setting, and consultation with other professionals.

CNEP 5331 Strategies and Interventions for Spanish-Speaking Clients
3 Semester Credit Hours (3 Lecture Hours)
This online course provides training in mental health strategies and interventions in counseling. The focus is on theories and techniques appropriate with Spanish-speaking clients.

CNEP 5332 Spanish-Speaking Internship I
3 Semester Credit Hours (3 Lecture Hours)
The Internship I experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision.

CNEP 5333 Spanish-Speaking Internship II
3 Semester Credit Hours (3 Lecture Hours)
The Internship II experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision. Students who have an opportunity to travel complete Internship II clinical work in a study abroad program in a Spanish-speaking country.
CNEP 5354 Developmental Issues in Human Personality and Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to address both historical and contemporary research in personality theory from a lifespan developmental perspective. Topics addressed in this course include normative patterns of personality development and adjustment; Major factors and conditions which are related to successful human adaptations including adult-child relations, personality defense mechanisms, developmental stages and abnormal behavior in addition to theories of personality. Social and Cultural foundations of personality development will also be covered. Students will be expected to demonstrate understanding of personality development across the lifespan as well as social/cultural influences on personality development through successful completion of various assignments which may include case studies, presentations, and examinations. There are no prerequisites for this course.

CNEP 5361 Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with both a theoretical and an experiential approach to group counseling dynamics and processes including therapeutic factors and group effectiveness, characteristics and functions of group leaders, recruiting, screening, and selecting group members, group settings and types of groups, ethical and cultural strategies for designing and facilitating groups, and a minimum of 10 clock hours of participation in a small group activity. There are no prerequisites for this course.

CNEP 5365 Stress Management and Integrated Wellness
3 Semester Credit Hours (3 Lecture Hours)
This is a course designed to teach practical skills for managing stress and integrating wellness practices into the daily lifestyle. Students will be exposed to current knowledge base and experiential best practices for identifying stressors in their environment and developing strategies for their personal and client use.

CNEP 5371 Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with a basic knowledge for testing and measurement in the counseling field. Topics addressed in this course include historical perspectives concerning the nature and meaning of assessment and testing in counseling, methods of effectively preparing for and conducting initial assessment meetings, use of assessments for diagnostic and intervention planning purposes, basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, group and individual assessments, validity and reliability in assessments, the use of assessments relevant to academic/educational, career, personal, and social development, use of environmental assessments and systematic behavioral observations, use of symptom checklists and personality and psychological testing, use of assessment results to diagnose developmental, behavioral, and mental disorders, and ethical and culturally relevant strategies for selecting, administering, and interpreting assessment and test results, and program evaluation and the use of findings to effect program modifications. Covers functions of testing in education; educational and social issues related to testing and use of test results; theoretical aspects of psychometrics; selection of commercial standardized tests; and common commercial standardized tests. Students will be expected to demonstrate knowledge of the foundation and history of psychometric assessment, knowledge of the psychometric properties of assessments, including validity, reliability, and norming groups, knowledge of how to select, administer, interpret, and report the results of psychometric assessments, how to conduct a biopsychosocial assessment, and how to conduct a program evaluation and interpret the results. There are no prerequisites for this course.

CNEP 5374 Individual Intelligence Testing
3 Semester Credit Hours (3 Lecture Hours)
Testing, scoring, and interpretation procedures for the Wechsler scales.

CNEP 5375 Clinical Mental Health Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to be a competency-based course with a primary focus on the practice and acquisition of specific techniques and interview skills. Topics addressed in this course include essential interviewing and decision-making skills, evidence-supported counseling strategies, culturally responsive modalities for initiating, maintaining, and terminating counseling, treatment planning, and strategies for promoting wellness and self-care. The student will demonstrate the ability to implement these competencies through discussion, conceptualization assignments, and experiential activities.
Prerequisite: CNEP 5384.

CNEP 5381 Psychodiagnosis and Treatment Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to cover types of human distress, as described in the Diagnostic and Statistical Manual of Mental Disorders, including the development of tools for the understanding and critical appraisal of abnormal human behavior across the life-span. Strategies and techniques for working with clients in a variety of settings are considered. The primary topic in this course is the diagnostic process, including differential diagnosis and the use of current diagnostic classification systems. Students will be expected to demonstrate understanding of the diagnostic process and treatment planning via successful completion of tasks in multiple case studies, mid-term examination, and final evaluation.
Prerequisite: (CNEP 5304 and 5308).

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CNEP 5384  The Counseling Process
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to teach students how to use beginning counseling skills. Topics addressed in this course include counselor characteristics and behaviors that influence the counseling process, essential interviewing, counseling, and case conceptualization skills, and self-care strategies appropriate to the counselor role. Students will be expected to demonstrate the ability to understand and use basic micro-skills in counseling practice, and demonstrate knowledge of counselor characteristics and behaviors that can affect the counseling process. They will also be expected to demonstrate the practice and understanding of self-care via intentional personal wellness activities.

CNEP 5385  Bridge Supervision
1 Semester Credit Hour
Supervised counseling experience during breaks between academic semesters. Counseling setting must be the same as the practicum/internship setting either the previous or following semester. The course, while not required for the degree, is required for all students who obtain hours towards the practicum/internship requirements during between-semester breaks.

CNEP 5390  Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contemporary issues in Counseling/Educational Psychology; topics vary with professional identification of participants. May be repeated when topics vary.

CNEP 5397  Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide 100 clock hours of supervised counseling experiences, including 40 hours of direct service with clients. Clinical setting must be approved by the Clinical Coordinator. The semester prior to enrollment the student must complete the practicum application process. Students will be expected to demonstrate satisfactory counseling skills as well as a professional counseling identity as evidenced by a grade of B or above in the course and satisfactory ratings on professional behavior ratings. Students who earn a grade below C will be required to re-take the course.
Prerequisite: CNEP 5381 and (CNEP 5384 and 5327).

CNEP 5399  Specialized internship Experience
3 Semester Credit Hours
A supervised field experience in counseling and counseling-related activities. An internship application must be completed and submitted to the instructor.

CNEP 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

CNEP 5698  Internship
3 Semester Credit Hours
This course, to be taken twice (6 hours), is designed to provide 600 clock hours of supervised counseling experiences, including 240 hours of direct service with clients. The clinical setting must be approved and appropriate to the student's emphasis. Students will be expected to provide direct counseling services appropriate to their program specialties and to fulfill additional roles common to the role of a counselor in their specialty as evidenced by evaluations from supervisors.
Prerequisite: (CNEP 5397, 5312, 5320, 5316 and 5375).

CNEP 6305  Advanced Theories in Individual and Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
Historical, theoretical, legal, ethical, and philosophical foundations in counseling with an emphasis on counseling and cultural issues, change theory, systems, and theory efficacy. Overview of major counseling theories includes identifying one's personal theory. Projects include evaluation of theories with multicultural populations.

CNEP 6310  Advanced Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of various counseling strategies appropriate to the development levels of elementary, middle, and secondary school students, adults, couples, and families. Includes case conceptualization and efficacy of theories and treatment strategies of National and International crises, disaster, and other trauma-causing events, short term and intermediate intervention strategies and advocacy methods with at-risk and multicultural populations.

CNEP 6315  Professional, Legal, and Ethical Issues
3 Semester Credit Hours (3 Lecture Hours)
Examination of professional, legal, ethical, topical, and political issues in the counseling profession. Includes focus on counselor's identity, relevant cultural concerns, and the counselor educators, role and responsibilities. Course material includes research writing projects and an Individual Development Plan (IDP).

CNEP 6316  Research, Writing and Publishing in a Multicultural Society
3 Semester Credit Hours (3 Lecture Hours)
Study of the professional standards of writing, publishing and presenting proposals in a diverse society. Topics include a review of contemporary research on diverse populations. Special emphasis is placed on student gaining knowledge and skill for conducting and communicating the results of scholarly inquiry through processes of editing, consultation and peer review processes.

CNEP 6320  Advanced Appraisal Techniques and Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This class focuses on facilitating student skills in development, planning, implementation and evaluation of assessment and testing programs. Topics include critical evaluation of validity and reliability of standardized and non-standardized assessments. Emphasis is placed on design parameters, specific assessment measures, and their use in program evaluation.

CNEP 6335  Consultation Theory and Professional Advocacy
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to identify effective consultation approaches/styles and advocacy action planning. Students will acquire skills in assessing needs of counselors in training, developing programs and techniques for change, and program evaluation.

CNEP 6340  Diversity in Counselor Education
3 Semester Credit Hours (3 Lecture Hours)
(3 SCH). This course provides students with the awareness, knowledge, and skills required of counselors, counselor educators, and counseling supervisors to be effective leaders and advocates in an increasingly pluralistic and diverse society. The course will provide students opportunities to develop multicultural competencies by critically examining how issues related to social justice and diversity impact various therapeutic, instructional, consultative, and supervisory relationships.
CNEP 6350 Advanced Clinical Supervision
3 Semester Credit Hours (3 Lecture Hours)
Study of counselor training and supervision with an exploration of the major theoretical/conceptual models and an overview of current trends and practices. Course includes didactic and applied experiences. Legal, ethical and multicultural issues and challenges in diverse settings are addressed, in addition to the purposes of clinical supervision and the role of the supervisor.
Prerequisite: CNEP 6305 and 6310.

CNEP 6354 Counselor Education Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
(3 SCH). This class is designed to facilitate development of students' knowledge, skills, and dispositions through an in-depth review of evidence-based practices associated with effective teaching practices used in counselor training thereby preparing students for careers in counselor education.

CNEP 6355 Leadership and Advocacy in Counselor Education
3 Semester Credit Hours (3 Lecture Hours)
This course is an exploration of issues of leadership in counselor education within a diverse society. Focus on problem identification, analysis, supervision, and problem-solving approaches within a multicultural framework. Emphasis is placed on leadership roles, theories, and skills.

CNEP 6360 Research Design and Statistics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed as a doctoral level survey of Research Design and Statistics. The major focus will involve an examination of the theoretical assumptions underlying various research designs and the use of inferential statistics. Special emphasis will be placed on the selection of appropriate design for specific applications in counseling and educational contexts. The course will involve both theoretical exploration and instruction on the use of computer-based statistical tools (SPSS).

CNEP 6365 Advanced Research & Design in Wellness and Stress Management Practices
3 Semester Credit Hours (3 Lecture Hours)
Advanced skill development in designing programs and working with clients experiencing stress related disorders that impact the overall quality of their lives. A special emphasis will be placed implementation of design strategies for development and evaluating programs for improving performance and health.

CNEP 6370 Quantitative Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on expanding each student’s knowledge of research design and statistical analysis beyond CNEP 6360 and EDDL 6392. Specific topics will include general linear model approaches to analysis of variance and regression analysis. Students will utilize SPSS to complete regularly assigned problems in order to demonstrate their competence. In addition, a special emphasis will be placed on the development of advanced quantitative skills needed to evaluate programs and student processes within a counselor educator model.
Prerequisite: CNEP 6360.

CNEP 6372 Quantitative Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
This research methodology course is designed to provide doctoral students with application experience in quantitative, qualitative and mixed-method data analytic procedures. Students will address promises and pitfalls using advanced univariate, multivariate, and non-parametric techniques introduced in CNEP 6360 and CNEP 6370. Students will act as consultants and evaluators on projects developed by student research teams in the department. This course is designed to help students address data analytic applications relevant to professional consulting, clinical and counseling practice as well as contexts involving program evaluation in a wide range of professional settings.
Prerequisite: CNEP 6320, 6360 and 6370.

CNEP 6384 Qualitative Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
This course is experientially based on the philosophy, design, and practice of qualitative research. It is understood that participants have a solid background in methods (as defined by the positivist and post-postpositivist tradition) and statistics. Students will situate qualitative inquiry/research in their philosophical, theoretical, and historical situations, learn methods of qualitative design, and develop a capacity to collect, analyze, and interpret qualitative empirical materials.

CNEP 6385 Qualitative Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
This course provides learners with advanced knowledge about and practice with specific qualitative designs commonly used in counseling research. It is understood that participants have a solid background in research methods generally (as defined by the positive and post-postpositivist tradition) as well as introductory understanding of qualitative methods specifically. Learners will deepen their understanding of general qualitative methods (e.g., phenomenology) and will focus attention on one or more theory-driven approaches (e.g., descriptive phenomenology, hermeneutic phenomenology, specific grounded theory approaches), with particular attention to consistency of method approach including data analysis.

CNEP 6390 Professional Seminar.
3 Semester Credit Hours (6 Lecture Hours)
Special topics is an advanced study in an identified area of academic interest. May be repeated for credit when topics vary. Covers the knowledge base of the counseling profession.

CNEP 6395 Doctoral Practicum
3 Semester Credit Hours (3 Lecture Hours)
Provides/demonstrates professional counseling expertise with effective application of multiple counseling theories. Demonstrates case conceptualization and effective interventions across diverse populations and settings. The experience includes a minimum of 100 clock hours. Students will experience both the direct delivery of services, and weekly individual and group supervision. Opportunities for the evaluation of student counseling skills will be provided.

CNEP 6396 Doctoral internship
3-6 Semester Credit Hours (3-6 Lecture Hours)
Provides an intensive, supervised professional experience in approved counseling and counselor education settings. Two internship courses are required. Each internship consists of a total of 300 clock hours of experience. Students will plan and participate in a variety of experiences relevant to the work of counselor education, which may include supervision, teaching, research, direct counseling, and leadership, all under supervision.
CNEP 6397 Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the application of research skills and inquiry methods. Students will be exposed to various methodological approaches and the components of scientific inquiry. Attention also will be given to ethical and legal issues in research.

CNEP 6398 Dissertation in Progress
1-6 Semester Credit Hours (1-6 Lecture Hours)
Completion of an approved research project under the supervision of a dissertation advisor. (Nine semester hour minimum.)

CNEP 6696 Directed individual Study
3-6 Semester Credit Hours (6 Lecture Hours)
May be repeated when topics vary.

Professional School Counseling, MS

Accreditation
The Department of Counseling and Educational Psychology offers programs leading to the Master of Science degrees in Professional Counseling and Professional School Counseling as well as the Doctor of Philosophy degree in Counselor Education. Programs in the Department of Counseling and Educational Psychology are accredited by The Council for the Accreditation of Counseling and Related Educational Programs (CACREP), 500 Montgomery Street, Suite 350 Alexandria, VA 22314.

Mission Statement
The Department of Counseling and Educational Psychology at Texas A&M University-Corpus Christi, devoted to excellence in instruction, research, and service, prepares graduate-level counselors and counselor educators, representing diverse backgrounds and experiences, to facilitate impactful societal changes at the local, state, national, and international levels.

Program Description
The Master of Science in Professional School Counseling (60 semester hours) prepares students to counsel in PK-12 school settings. Upon completion of the degree program, students will have met all relevant educational requirements for Texas Education Agency school counselor certification. Additionally, the degree plan is designed to meet the current educational requirements for the Texas Licensed Professional Counselor (LPC) credential as specified by the Texas Board of Examiners of Professional Counselors. Students seeking school counseling certification should consult with the school counselor program coordinator and the certification office on campus regarding current state certification requirements to ensure eligibility prior to graduation.

Student Learning Outcomes
Students will:
- Demonstrate a professional counselor identity
- Demonstrate the knowledge of the fundamental components of counseling
- Demonstrate adherence to professional ethical standards and the practice of advocacy
- Demonstrate effective counseling/clinical skills with diverse populations

Academic Standards
Students pursuing a Master of Science Degree in Professional School Counseling must maintain the following standards:
1. A cumulative GPA of 3.0 or better.
2. Only two courses with a grade of C can be applied to the degree.
3. No course with a grade below C will be applied toward the degree.
4. No grade below B in Practicum or Internship will be applied toward the degree.
5. Students may not proceed to practicum or internship unless they meet the standards in 1-3 above.
6. All requirements, including coursework at Texas A&M University—Corpus Christi and transfer credit coursework, must be completed within seven (7) calendar years from the date of initial enrollment in coursework.

Fitness to Practice
In addition to meeting or exceeding academic standards, students pursuing a Master of Science Degree in Professional School Counseling must meet fitness to practice standards that are assessed by faculty throughout the program. These standards include demonstration of emotional and mental fitness in their interaction with others as well as conformance with professional counseling associations and State of Texas codes of ethics and standards of practice.

At regular intervals throughout the program, and at any time a faculty member deems it advisable, students will be evaluated on the Professional Issues and Behavior Rating Scale. Students who fail to demonstrate fitness or conformance to appropriate codes may be asked to enter a remediation plan to remain in the program. If a remediation plan is developed, students must demonstrate satisfactory remediation prior to being allowed to proceed toward graduation. Specific information concerning fitness to practice and codes to which students are expected to conform may be found in the Department of Counseling and Educational Psychology Master's Student Handbook.

Experiential Learning
Students in the Department of Counseling and Educational Psychology Master of Science programs will, in some coursework, be expected to participate in experiential learning that will involve some degree of self-exploration and self-reflection. Some training components will encourage personal growth and self-disclosure as part of the training process. While faculty members will exercise professional judgment and make ethical and responsible efforts to ensure the well-being of students when designing such experiences, they recognize that personal growth, reflective practice, and self-exploration can generate discomfort. Students are encouraged to engage in personal counseling. In addition, students who are unable to make use of reasonable opportunities for personal growth and reflection or who are unwilling to participate in appropriate self-disclosure may be referred for departmental remediation processes. Students who have concerns about participating in such activities may wish to speak with a departmental advisor prior to entering the program.

Admission Requirements
Students are eligible to pursue graduate-level course work in Counseling if they meet COEHD graduate admission requirements as specified in the
COEHD’s Graduate Policies and Regulations (p. 61) section of this catalog.

The above minimum criteria, along with the following factors, are reviewed by the Department of Counseling and Educational Psychology faculty selection committee in determining admissions.

**Deadline for Master of Science Student Applications are:**
- March 1 - fall semester
- October 1 - spring semester
- March 1 - summer semester

**Requirements**
- Undergraduate performance – GPA (3.0 in last 60 hours)
- Graduate level work with a B grade or higher
- Quality and relevancy of recommendations
- Counseling-related work experiences
- Interview
- Three letters of recommendation
- 500-700 word written essay, including one's personal/professional career plans, goals, and a statement indicating one's ability to work individually and in groups with diverse populations.

Students who do not meet the requirements for full admission into the Department of Counseling and Educational Psychology may be admitted on conditional status and take courses approved by the faculty. This conditional status applies to the first nine hours of the students' program of study. Within these nine hours, students are required to take CNEP 5304 Introduction to Counseling (3 sch) and CNEP 5308 Counseling Theories (3 sch). Students must earn a GPA of grade of B or higher in each course taken during their conditional admit status in order to proceed to full admission.

**Program Requirements**

The Master of Science in Professional School Counseling is a 60 semester hour program of study that prepares students to become state certification-eligible school counselors. The degree plan for the Professional School Counseling program is as follows:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>EDFN 5301</td>
<td>Introduction to Research</td>
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<td><strong>Core Courses</strong></td>
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<tr>
<td>CNEP 5304</td>
<td>Introduction to Counseling *</td>
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<td>CNEP 5306</td>
<td>Career Counseling</td>
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<td>CNEP 5312</td>
<td>Addictions Counseling</td>
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<td>CNEP 5314</td>
<td>Theory and Practice of Multicultural Counseling ^</td>
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<tr>
<td>CNEP 5327</td>
<td>Ethical and Legal Issues in Counseling</td>
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<td>CNEP 5328</td>
<td>Abnormal Human Behavior</td>
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<td>CNEP 5354</td>
<td>Developmental Issues in Human Personality and Behavior</td>
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<td>CNEP 5361</td>
<td>Group Counseling</td>
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<td>CNEP 5371</td>
<td>Psychometrics</td>
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<tr>
<td>CNEP 5381</td>
<td>Psychodiagnosis and Treatment Strategies</td>
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<td>CNEP 5384</td>
<td>The Counseling Process</td>
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<tr>
<td>CNEP 5397</td>
<td>Practicum</td>
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<td>CNEP 5698</td>
<td>Internship</td>
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**Special Emphasis Courses**

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<tr>
<td>CNEP 5316</td>
<td>Developmental School Counseling</td>
<td>3</td>
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<tr>
<td>CNEP 5320</td>
<td>Introduction to Marriage, Couple, and Family Counseling ^</td>
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**Elective Courses**

Select three hours 3

**Total Hours**  60

^ Blended offering

**Professional School Counselor Certification Eligibility**

Individuals currently holding a counseling master's degree who are seeking to meet certification requirements for the TEA School Counselor Certificate through TAMUCC will be required to complete the equivalent of a 48-semester hour school counseling program of study under TEA policy. The professional school counseling program coordinator will review student transcripts to determine specific coursework needed to become certification-eligible. Students are required to successfully complete CNEP 5316 Developmental School Counseling and then obtain a passing score on the TAMUCC certification practice examination before sitting for the state certification examination. Issuance of School Counselor certification by the Texas Education Agency requires two years of PK-12 teaching experience and passing the state TExES 152 school counselor examination.

**Comprehensive Examination**

In addition to successful completion of all courses required for graduation, students are required to pass a comprehensive written examination. Students will take this examination while enrolled in Practicum. All students should have completed pre-requisites prior to enrollment in Practicum.

**TExES Endorsement for Non-Graduates of TAMUCC**

Educators who did not receive their Master of Science degree in Professional School Counseling from this program and who wish to be endorsed to take the TExES examination must have their transcript evaluated by professional school counseling program coordinator. Coursework will be compared to courses required in this program and the extent of their education and skills will be assessed. If the student’s coursework is judged to be deficient in any area, including practicum and internship, the student will be required to take courses to address these deficiencies.

**Courses**

CNEP 5304 Introduction to Counseling  
3 Semester Credit Hours (3 Lecture Hours)
This course is an orientation to the profession of counseling, its history, professional standards, code of ethics, credentials, areas of specialization, and the development of skills necessary to create a helping relationship. It covers the counselor’s professional identity in a variety of settings and roles. Opportunities are provided for students to discover through self-awareness their suitability for the helping profession.
CNEP 5306 Career Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course covers classic and contemporary theories of career development, counseling, and decision making, including the use of career/occupational resources, testing, computer-assisted guidance systems, career development planning, assessing factors contributing to career development, advocating for diverse clients, using assessment tools, facilitating client skill development, and using ethical and culturally relevant strategies for addressing career development including the client's life experiences. Career services in various settings will be discussed. Multicultural issues and needs of special populations will be presented. There are no prerequisites for this course.

CNEP 5308 Counseling Theories
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the theoretical foundations associated with best practices for counseling treatment planning and intervention. Topics addressed in this course include the historical development and contemporary application of counseling theories, review of key concepts that influence client change, essential features of the therapeutic process, and considerations for culturally-relevant and setting-specific applications. Students will be expected to complete designated readings, work in small groups, complete experiential activities, and demonstrate learning across several modes of evaluation. There are no prerequisites for this course.

CNEP 5309 Grief and Loss Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of issues on death, dying, loss, and the impact of grief. Topics addressed in this course include various types of loss, including non-death related, conceptualizations of grief and mourning across the lifespan, evidence-based interventions to support the dying and bereaved individuals, and strategies for identifying and intervening with those who have clinically significant complicated grief. Students will be expected to explore their own grief reactions as well as examine the societal, cultural, and familial expectations surrounding grief and death rituals. There are no prerequisites for this course.

CNEP 5312 Addictions Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with the knowledge and skills necessary to address a wide range of issues in the context of addiction counseling, treatment, and prevention programs, as well as in a broader mental health counseling context. Topics addressed in this course include: the history and development of addiction counseling; principles and philosophies of addiction-related self-help; neurological, behavioral, psychological, physical, and social effects of psychoactive substances and addictive disorders on the user and significant others; cultural factors related to addiction and addictive behavior. Students will examine specific treatment strategies applicable to the biopsychosocial issues related to addictions, as well as current ethical and professional issues in the field. Students will be expected to articulate strategies for helping clients identify the effects of addiction on life problems and effectively partner with clients to reduce the persisting negative effects of substance use, abuse, dependence, and addictive disorders. There are no prerequisites for this course.

CNEP 5313 Theories and Techniques in Substance Abuse Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of addictions treatment and the counseling dynamics involved, as well as the significance and impact of addictions within our society. Topics addressed in this course include: theories and models of addiction related to substance use as well as behavioral and process addictions; techniques and interventions related to treating substance abuse and other addictions; principles, models, and documentation formats of biopsychosocial case conceptualization and treatment planning; and regulatory processes and substance abuse policy relative to service delivery opportunities in addiction counseling. Students will be expected to describe various methods of screening, assessment, and testing for addiction; articulate pertinent legal and ethical considerations specific to addiction counseling; and evaluate and identify individualized strategies and treatment modalities relative to clients' stage of dependence, change, or recovery.

CNEP 5314 Theory and Practice of Multicultural Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the cultural differences of special populations of people. Emphasis on ethical use of appropriate counseling techniques for use with the major racial/ethnic groups and other special populations of people such as those who are physically or emotionally disabled, older, of different genders or of different sexual orientation. Topics addressed in this course include: theories and models of multicultural counseling; multicultural counseling competencies; cultural identity development; worldview, power, privilege, and oppression, social justice, and advocacy. Students will be expected to articulate effective strategies for working with and advocating for diverse populations; recognize the impact of heritage, attitudes, beliefs, and acculturative experiences on individuals' view of self and others; and identify and eliminate barriers, prejudices, and processes of intentional and unintentional oppression and discrimination at the individual and institutional level. There are no prerequisites for this course.

CNEP 5315 Consultation and Responsive Services in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide both indirect services to children and adolescents via effective consultation and direct responsive services in the school setting. Topics addressed in this course include consultation models, crisis counseling models, crisis intervention, and school counselor roles in consultation and crisis response. Students will be expected to develop interventions in which consultation is the primary method of delivery, appropriately respond to crisis situations encountered in a school environment, create responsive services programming based on applicable data, and demonstrate skills needed for effective consultation and responsive services, and articulate the connection between consultation and responsive services. There are no prerequisites for this course.

CNEP 5316 Developmental School Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of the planning, design, implementation, and evaluation of comprehensive, developmental school counseling programs. The course includes student collaboration with existing school counseling programs to facilitate student professionalism and competence in consultation, strategy selection and implementation, program delivery, and community referral. This course is a requirement for eligibility to take the TExES school counselor examination.
CNEP 5317 Play Therapy: a Counseling Intervention  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed for the purpose of studying the theory, techniques, and issues related to counseling children using play therapy. The class will consist of lecture, group discussion, video presentations, experiential activities and case studies. Designed for both school and community counselors.

CNEP 5318 Consultation in School Settings  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to train school counseling students to provide indirect services to children and adolescents through effective consultation with parents, teachers, administrators and external referral sources. The emphasis of the course is on the acquisition of skills that follow a logical consultation model. The course has a didactic and experiential learning component. Students will become sensitized to socio-cultural diversity issues as they impact consultation, and to the ethical and legal issues pertaining to working in the schools. Current research will be used to guide the consultation process.  
Prerequisite: (CNEP 5304 and 4308).

CNEP 5319 Introduction to Clinical Mental Health Counseling  
3 Semester Credit Hours (3 Lecture Hours)  
Research, identification, and design of systemic models of prevention and intervention that foster the healthy development of individuals in school and community settings. Focus will be both on assessment and implementation of culturally respectful approaches that invite collaboration with the family, school, community, and other contextual resources of children, adolescents, and adults.

CNEP 5320 Introduction to Marriage, Couple, and Family Counseling  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to provide an introduction to marriage, couple, and family counseling. Topics addressed in this course include history and development of marriage, couple, and family counseling; theories and models of family systems and dynamics; theories and models of marriage, couple, and family counseling; and sociology of the family, family phenomenology, and family of origin theories. In addition, roles and settings of marriage, couple, and family counselors as well as professional credentialing and preparation of marriage, couple, and family counselors will be addressed. Students will be expected to successfully complete a variety of tasks, including projects, presentations, examinations, and role plays.

CNEP 5321 Advanced Strategies in Process Addictions and Substance Abuse  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to equip students with advanced strategies, techniques, and interventions for treating substance use disorders as well as behavioral and process addictions. Topics addressed in this course include: the diagnostic process and use of current diagnostic classification systems found in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD); assessment of biopsychosocial and spiritual history relevant to addiction; classifications and contraindications of commonly prescribed psychopharmacological medications for appropriate medical referral and consultation; psychological tests and assessments specific to addiction counseling; and the importance of vocation, family, social networks, and community systems in the treatment and recovery process for substance use disorders, behavioral addictions, and process addictions. Students will be expected to effectively assess, diagnose, and treat a variety of addictive disorders and process addictions using contemporary evidence-based practices.  
Prerequisite: CNEP 5313.

CNEP 5322 Strategies in Family Counseling  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to focus on clinical applications of major theoretical models of family counseling. Topics addressed in this course include principles and models of assessment and case conceptualization from a systems perspective; interventions and techniques of marriage, couple, and family counseling; and conceptualizing and implementing treatment. Students will be expected to demonstrate application of various approaches, including both case conceptualization and interventions, from a variety of theoretical models via case studies, role plays, and other course activities.  
Prerequisite: CNEP 5320.

CNEP 5323 Counseling for Holistic Wellness  
3 Semester Credit Hours (3 Lecture Hours)  
This course provides an introduction and critical review of contemporary theory and research in models of holistic wellness including consideration of experiential and interventions that address lifestyle variables. The course also discusses the role of the professional counselor as interventionist in a variety of applied settings in assisting clientele in moving toward optimal health (not just absence of illness), through an integration of physical, psychological, social, spiritual and personal choice components of physical health and lifestyle management.

CNEP 5324 Counseling Couples  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to familiarize students with the assessment and treatment of couple relationships. Major topics include but are not limited to research- and efficacy-based treatment models, legal and ethical standards, couples sexual counseling, premarital counseling and preventive psychoeducational approaches, gender and issues of diversity impacting couple relationships, research relevant to couple counseling, and societal trends.  
Prerequisite: CNEP 5320.

CNEP 5326 Family Counseling for Child and Adolescent-Focused Issues  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to focus on evidence-based family treatment of problems that are child- and adolescent-focused. Topics addressed in this course include principles and models of assessment and case conceptualization from a systemic perspective; use of appropriate assessments in family therapy; impact of trauma and addictions on families; evidence-based models and interventions in family counseling for problems that are child- and adolescent-focused; and conceptualization planning of intervention strategies in family counseling. Students will be expected to demonstrate the ability to utilize assessments, conceptualize treatment, and plan specific interventions to address child and adolescent related issues in family counseling.  
Prerequisite: CNEP 5320.

CNEP 5327 Ethical and Legal Issues in Counseling  
3 Semester Credit Hours (3 Lecture Hours)  
This course offers in-depth consideration of ethical and legal issues that affect the practice of counseling in clinical mental health counseling; marital, couple, and family counseling; addictions counseling; and school counseling settings. The course will assist students in understanding and formulating sound positions on a variety of major issues related to the field of counseling. Students are expected to be familiar with a variety of ethical codes as well as laws regulating the profession. Students will be expected to utilize ethical-decision-making models and codes of ethics to analyze cases, analyze content appropriate to their program emphases, apply relevant codes of ethics and laws, and demonstrate understanding of critical legal and ethical content.
CNEP 5328 Abnormal Human Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the principles of understanding the dysfunction in human behavior and development, including the impact of disaster, crises, and other trauma-causing events on developmental processes. Students will learn how dysfunctional behavior manifests and factors that increase one’s vulnerability to abnormal human behavior. The primary topics of this course include theories of normal and abnormal personality development and the effects of crisis, disasters, and other trauma on diverse individuals across the lifespan. Students will be expected to demonstrate understanding of abnormal personality development as well as the impact of trauma-causing events on personality development via successful completion of tasks in various assignments which may include case studies, presentations, and examinations.

CNEP 5329 Cultural Immersion: Diversity of Spanish Speakers
3 Semester Credit Hours (3 Lecture Hours)
This course addresses cultural issues in Spanish-speaking such as concept of family, authority and social organization, communication method, thought, formality of address and spirituality. This course will be offered both as an online course and a study abroad experience. Students who have an opportunity to travel may take this course when it is offered in a Spanish-speaking country.

CNEP 5330 Professional and Technical Spanish
3 Semester Credit Hours (3 Lecture Hours)
This on-line course is an orientation to counseling clients in Spanish. Students will become familiar with terms to use to facilitate a session in Spanish. Professional counseling concepts include mental health, counseling techniques, communication skills, understanding and problem solving, goal setting, and consultation with other professionals.

CNEP 5331 Strategies and Interventions for Spanish-Speaking Clients
3 Semester Credit Hours (3 Lecture Hours)
This online course provides training in mental health strategies and interventions in counseling. The focus is on theories and techniques appropriate with Spanish-speaking clients.

CNEP 5332 Spanish-Speaking Internship I
3 Semester Credit Hours (3 Lecture Hours)
The Internship I experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision.

CNEP 5333 Spanish-Speaking Internship II
3 Semester Credit Hours (3 Lecture Hours)
The Internship II experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision. Students who have an opportunity to travel complete Internship II clinical work in a study abroad program in a Spanish-speaking country.
CNEP 5371  Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with a basic knowledge for testing and measurement in the counseling field. Topics addressed in this course include historical perspectives concerning the nature and meaning of assessment and testing in counseling, methods of effectively preparing for and conducting initial assessment meetings, use of assessments for diagnostic and intervention planning purposes, basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, group and individual assessments, validity and reliability in assessments, the use of assessments relevant to academic/educational, career, personal, and social development, use of environmental assessments and systematic behavioral observations, use of symptom checklists and personality and psychological testing, use of assessment results to diagnose developmental, behavioral, and mental disorders, and ethical and culturally relevant strategies for selecting, administering, and interpreting assessment and test results, and program evaluation and the use of findings to effect program modifications. Covers functions of testing in education; educational and social issues related to testing and use of test results; theoretical aspects of psychometrics; selection of commercial standardized tests; and common commercial standardized tests. Students will be expected to demonstrate knowledge of the foundation and history of psychometric assessment, knowledge of the psychometric properties of assessments, including validity, reliability and norming groups, knowledge of how to select, administer, interpret, and report the results of psychometric assessments, how to conduct a biopsychosocial assessment, and how to conduct a program evaluation and interpret the results. There are no prerequisites for this course.

CNEP 5374  Individual intelligence Testing
3 Semester Credit Hours (3 Lecture Hours)
Testing, scoring, and interpretation procedures for the Wechsler scales.

CNEP 5375  Clinical Mental Health Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to be a competency-based course with a primary focus on the practice and acquisition of specific techniques and interview skills. Topics addressed in this course include essential interviewing and decision-making skills, evidence-supported counseling strategies, culturally responsive modalities for initiating, maintaining, and terminating counseling, treatment planning, and strategies for promoting wellness and self-care. The student will demonstrate the ability to implement these competencies through discussion, conceptualization assignments, and experiential activities.
Prerequisite: CNEP 5384.

CNEP 5381  Psychodiagnosis and Treatment Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to cover types of human distress, as described in the Diagnostic and Statistical Manual of Mental Disorders, including the development of tools for the understanding and critical appraisal of abnormal human behavior across the life-span. Strategies and techniques for working with clients in a variety of settings are considered. The primary topic in this course is the diagnostic process, including differential diagnosis and the use of current diagnostic classification systems. Students will be expected to demonstrate understanding of the diagnostic process and treatment planning via successful completion of tasks in multiple case studies, mid-term examination, and final evaluation.
Prerequisite: (CNEP 5304 and 5308).

CNEP 5384  The Counseling Process
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to teach students how to use beginning counseling skills. Topics addressed in this course include counselor characteristics and behaviors that influence the counseling process, essential interviewing, counseling, and case conceptualization skills, and self-care strategies appropriate to the counselor role. Students will be expected to demonstrate the ability to understand and use basic micro-skills in counseling practice, and demonstrate knowledge of counselor characteristics and behaviors that can affect the counseling process. They will also be expected to demonstrate the practice and understanding of self-care via intentional personal wellness activities.

CNEP 5385  Bridge Supervision
1 Semester Credit Hour
Supervised counseling experience during breaks between academic semesters. Counseling setting must be the same as the practicum/internship setting either the previous or following semester. The course, while not required for the degree, is required for all students who obtain hours towards the practicum/internship requirements during between-semester breaks.

CNEP 5390  Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contemporary issues in Counseling/Educational Psychology; topics vary with professional identification of participants. May be repeated when topics vary.

CNEP 5397  Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide 100 clock hours of supervised counseling experiences, including 40 hours of direct service with clients. Clinical setting must be approved by the Clinical Coordinator. The semester prior to enrollment the student must complete the practicum application process. Students will be expected to demonstrate satisfactory counseling skills as well as a professional counseling identity as evidenced by a grade of B or above in the course and satisfactory ratings on professional behavior ratings. Students who earn a grade below C will be required to re-take the course.
Prerequisite: CNEP 5381 and (CNEP 5384 and 5327).

CNEP 5399  Specialized internship Experience
3 Semester Credit Hours
A supervised field experience in counseling and counseling-related activities. An internship application must be completed and submitted to the instructor.

CNEP 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

CNEP 5698  Internship
3 Semester Credit Hours
This course, to be taken twice (6 hours), is designed to provide 600 clock hours of supervised counseling experiences, including 240 hours of direct service with clients. The clinical setting must be approved and appropriate to the student's emphasis. Students will be expected to provide direct counseling services appropriate to their program specialties and to fulfill additional roles common to the role of a counselor in their specialty as evidenced by evaluations from supervisors.
Prerequisite: (CNEP 5397, 5312, 5320, 5316 and 5375).
CNEP 6305 Advanced Theories in Individual and Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
Historical, theoretical, legal, ethical, and philosophical foundations in counseling with an emphasis on counseling and cultural issues, change theory, systems, and theory efficacy. Overview of major counseling theories includes identifying one’s personal theory. Projects include evaluation of theories with multicultural populations.

CNEP 6310 Advanced Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of various counseling strategies appropriate to the development levels of elementary, middle, and secondary school students, adults, couples, and families. Includes case conceptualization and efficacy of theories and treatment strategies of National and International crises, disaster, and other trauma-causing events, short term and intermediate intervention strategies and advocacy methods with at-risk and multicultural populations.

CNEP 6315 Professional, Legal, and Ethical Issues
3 Semester Credit Hours (3 Lecture Hours)
Examination of professional, legal, ethical, topical, and political issues in the counseling profession. Includes focus on counselor’s identity, relevant cultural concerns, and the counselor educators, role and responsibilities. Course material includes research writing projects and an Individual Development Plan (IDP).

CNEP 6316 Research, Writing and Publishing in a Multicultural Society
3 Semester Credit Hours (3 Lecture Hours)
Study of the professional standards of writing, publishing and presenting proposals in a diverse society. Topics include a review of contemporary research on diverse populations. Special emphasis is placed on student gaining knowledge and skill for conducting and communicating the results of scholarly inquiry through processes of editing, consultation and peer review processes.

CNEP 6320 Advanced Appraisal Techniques and Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This class focuses on facilitating student skills in development, planning, implementation and evaluation of assessment and testing programs. Topics include critical evaluation of validity and reliability of standardized and non-standardized assessments. Emphasis is placed on design parameters, specific assessment measures, and their use in program evaluation.

CNEP 6335 Consultation Theory and Professional Advocacy
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to identify effective consultation approaches/styles and advocacy action planning. Students will acquire skills in assessing needs of counselors in training, developing programs and techniques for change, and program evaluation.

CNEP 6340 Diversity in Counselor Education
3 Semester Credit Hours (3 Lecture Hours)
(3 SCH). This course provides students with the awareness, knowledge, and skills required of counselors, counselor educators, and counseling supervisors to be effective leaders and advocates in an increasingly pluralistic and diverse society. The course will provide students opportunities to develop multicultural competencies by critically examining how issues related to social justice and diversity impact various therapeutic, instructional, consultative, and supervisory relationships.

CNEP 6350 Advanced Clinical Supervision
3 Semester Credit Hours (3 Lecture Hours)
Study of counselor training and supervision with an exploration of the major theoretical/conceptual models and an overview of current trends and practices. Course includes didactic and applied experiences. Legal, ethical and multicultural issues and challenges in diverse settings are addressed, in addition to the purposes of clinical supervision and the role of the supervisor.

Prerequisite: CNEP 6305 and 6310.

CNEP 6354 Counselor Education Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
(3 SCH). This class is designed to facilitate development of students' knowledge, skills, and dispositions through an in-depth review of evidence-based practices associated with effective teaching practices used in counselor training thereby preparing students for careers in counselor education.

CNEP 6355 Leadership and Advocacy in Counselor Education
3 Semester Credit Hours (3 Lecture Hours)
This course is an exploration of issues of leadership in counselor education within a diverse society. Focus on problem identification, analysis, supervision, and problem-solving approaches within a multicultural framework. Emphasis is placed on leadership roles, theories, and skills.

CNEP 6360 Research Design and Statistics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed as a doctoral level survey of Research Design and Statistics. The major focus will involve an examination of the theoretical assumptions underlying various research designs and the use of inferential statistics. Special emphasis will be placed on the selection of appropriate design for specific applications in counseling and educational contexts. The course will involve both theoretical exploration and instruction on the use of computer-based statistical tools (SPSS).

CNEP 6365 Advanced Research & Design in Wellness and Stress Management Practices
3 Semester Credit Hours (3 Lecture Hours)
Advanced skill development in designing programs and working with clients experiencing stress related disorders that impact the overall quality of their lives. A special emphasis will be placed implementation of design strategies for development and evaluating programs for improving performance and health.

CNEP 6370 Quantitative Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on expanding each student’s knowledge of research design and statistical analysis beyond CNEP 6360 and EDLD 6392. Specific topics will include general linear model approaches to analysis of variance and regression analysis. Students will utilize SPSS to complete regularly assigned problems in order to demonstrate their competence. In addition, a special emphasis will be placed on the development of advanced quantitative skills needed to evaluate programs and student processes within a counselor educator model.

Prerequisite: CNEP 6360.
Under supervision.

Supervision, teaching, research, direct counseling, and leadership, all relevant to the work of counselor education, which may include are required. Each internship consists of a total of 300 clock hours of counseling and counselor education settings. Two internship courses

3-6 Semester Credit Hours (3-6 Lecture Hours)
CNEP 6396
Doctoral internship
3-6 Semester Credit Hours (3-6 Lecture Hours)
Provides an intensive, supervised professional experience in approved counseling and counselor education settings. Two internship courses are required. Each internship consists of a total of 300 clock hours of experience. Students will plan and participate in a variety of experiences relevant to the work of counselor education, which may include supervision, teaching, research, direct counseling, and leadership, all under supervision.

CNEP 6397 Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the application of research skills and inquiry methods. Students will be exposed to various methodological approaches and the components of scientific inquiry. Attention also will be given to ethical and legal issues in research.

CNEP 6398 Dissertation in Progress
1-6 Semester Credit Hours (1-6 Lecture Hours)
Completion of an approved research project under the supervision of a dissertation advisor. (Nine semester hour minimum.)

CNEP 6696 Directed individual Study
3-6 Semester Credit Hours (6 Lecture Hours)
May be repeated when topics vary.

Reading, MS

Program Description
The Master of Science degree in Reading is a fully online program that has been designed for the student to earn a master's degree with the option of applying coursework to the Reading Specialist certification.

Graduates of the Master of Science in Reading should be able to:

- demonstrate an ability to work with students of differing abilities in literacy.
- describe the major components in a comprehensive reading program, and
- conduct and present a project relevant to their professional needs.

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/education/reading.html

Campus Address:
Early Childhood Development Center, Room 240
Phone (361) 825-3336
corinne.valadez@tamucc.edu

Mailing Address:
Department of Curriculum, Instruction, and Learning Sciences, Unit 5834
College of Education and Human Development
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5834

Admission Requirements
Students are eligible to pursue graduate-level course work in Reading if they meet COEHD graduate admission requirements as specified in the COEHD’s Graduate Policies and Regulations (p. 61) section of this catalog.

Program Requirements
The requirements for the Reading master's degree are 36 semester credit hours, including 24 semester hours in Reading and an additional 3-credit research course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDFN 5301</td>
<td>Introduction to Research</td>
<td>3</td>
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**Reading Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>READ 5345</td>
<td>Stages and Standards for Reading Development</td>
<td>3</td>
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<tr>
<td>READ 5350</td>
<td>Multicultural Literacy</td>
<td>3</td>
</tr>
<tr>
<td>READ 5371</td>
<td>Diagnosis and Correction of Reading Problems</td>
<td>3</td>
</tr>
<tr>
<td>READ 5392</td>
<td>Psycho-sociolinguistics and Reading</td>
<td>3</td>
</tr>
<tr>
<td>READ 5395</td>
<td>Leadership and Literacy</td>
<td>3</td>
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<tr>
<td>READ 5697</td>
<td>Reading Practicum</td>
<td>6</td>
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<tr>
<td>READ 5396</td>
<td>Literacy Research Seminar</td>
<td>3</td>
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</table>

**Prescribed Electives**

<table>
<thead>
<tr>
<th>Electives for Reading Specialist Certificate</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>READ 5381 Exploring the Literature of Children and Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>READ 5310 Emergent Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

- READ 5369 Content Area Reading
- READ 5372 Classroom Assessment and instruction

Total Hours: 36

1 Required for Reading Specialist

**Capstone Experience**

All students will engage in a capstone experience within READ 5396 Literacy Research Seminar (3 sch).

**Courses**

**READ 5310 Emergent Literacy**

3 Semester Credit Hours (3 Lecture Hours)

Language acquisition and functions of language are explored for beginning literacy (K-3). Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of the language systems (reading, writing, speaking, listening). Of particular concern will be children’s oral language, letter knowledge, reading and writing vocabularies, concepts about print, and auditory discrimination.

**READ 5314 College/Adult Literacy**

3 Semester Credit Hours (3 Lecture Hours)

Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adult education.

**READ 5321 Fundamentals of Elementary Reading instruction I**

3 Semester Credit Hours (3 Lecture Hours)

This course includes a study of methods, materials, and strategies for teaching reading. It is designed to provide graduate students with professional knowledge concerning current research, philosophical perspectives, essential program components, and pedagogical strategies essential to the teaching of reading. Enrollment limited to graduate students seeking initial teacher certification.

**READ 5322 Fundamentals of Elementary Reading instruction II**

3 Semester Credit Hours (3 Lecture Hours)

This course includes a study of theoretical, research, and pedagogical aspects of the reading-writing connection for grades 4-8 students. There will also be an emphasis on content area reading and study skills as well as the writing process. Enrollment limited to graduate students seeking initial certification.

**READ 5323 Fundamentals of Secondary Reading instruction**

3 Semester Credit Hours (3 Lecture Hours)

This course is designed to provide graduate students with professional knowledge concerning current research, theory, essential program components, and pedagogical strategies in secondary literacy. Application of strategies to the reading, writing, and learning needs to adolescents will be emphasized. Areas of consideration will include classroom assessment of literacy study reading, and integrating trade books into the content classroom. Enrollment limited to graduate students seeking initial certification.

**READ 5345 Stages and Standards for Reading Development**

3 Semester Credit Hours (3 Lecture Hours)

This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate.

**READ 5346 Trends and issues in Literacy**

3 Semester Credit Hours (3 Lecture Hours)

In this course students will examine the recent and past trends in literacy and the political, cultural, and research-based forces that influenced those trends. Attention will be given to how those trends have impacted and are impacting literacy instruction.

**READ 5350 Multicultural Literacy**

3 Semester Credit Hours (3 Lecture Hours)

This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. This course is required for the Master Reading Teacher Certificate.

**READ 5352 Theoretical Models of Reading and Writing**

3 Semester Credit Hours (3 Lecture Hours)

This course is designed to provide teachers opportunities to expand their knowledge of the theoretical ways in which reading and writing processes are related and the practical ways in which these parallel processes can be incorporated into the literacy curriculum.

**READ 5355 Teaching Literacy through Technology**

3 Semester Credit Hours (3 Lecture Hours)

In this course students explore research on the use of computers and related technolgy to (a) develop a more responsive literacy curriculum, and (b) determine literacy management and evaluation procedures in the technology environment.

**READ 5357 Critical Literacy**

3 Semester Credit Hours (3 Lecture Hours)

Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts.

**READ 5369 Content Area Reading**

3 Semester Credit Hours (3 Lecture Hours)

In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students’ abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation.
READ 5371  Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course students learn techniques for diagnosis and correction of reading problems as they work with children experiencing difficulty in learning to read.

READ 5372  Classroom Assessment and instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. This course is required for the Master Reading Teacher Certificate.

READ 5381  Exploring the Literature of Children and Adolescents
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the historical, social, and pedagogical developments of the field of literature for children and adolescents.

READ 5390  Professional Seminar: Special Topics in Literacy
3 Semester Credit Hours
The course addresses issues relevant to literacy. It may be repeated when topics vary.

READ 5392  Psycho-sociolinguistics and Reading
3 Semester Credit Hours (3 Lecture Hours)
This course explores the psychology of language as well as the social semiotics of language learning. Theories of cognition and sociolinguistics will be examined as they relate to literacy development in regular and specialized learning contexts.

READ 5393  Literacy Curriculum and Supervision
3 Semester Credit Hours (3 Lecture Hours)
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 5395  Leadership and Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes how to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues.

READ 5396  Literacy Research Seminar
3 Semester Credit Hours
This seminar is the culminating course in the graduate reading concentration. Current trends in literacy research, the critical examination of selected research studies, and the self-evaluation of professional needs and interests are included. This course calls for students to integrate information from previous classes with new information presented in this class in order to develop, conduct, and evaluate action-based research.

READ 5696  Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

READ 5697  Reading Practicum
6 Semester Credit Hours (6 Lecture Hours)
Students will have an opportunity to apply their knowledge of reading instruction by teaching children and youth with reading difficulties. They will gain knowledge of: the organization and management of the reading program, as well as early intervention strategies and programs. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies on the children and youth being tutored. Some emphasis will also be placed on the many roles of the reading professional.

READ 6310  Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy P-4. Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of language systems (reading, writing, speaking, listening). Of particular concern will be children’s oral language, letter knowledge, reading and writing vocabulary, concepts about print, and auditory discrimination. Doctoral students enrolled in this course will be expected to complete all assignments designated for master’s students and also complete additional specified assignments. Students who took this course as READ 5310 may not take the course as READ 6310.

READ 6314  College/adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adults. In addition, doctoral students will study topics related to educating adults in professional situations. Students who took this course as READ 5314 may not take the course as READ 6314.

READ 6345  Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5345 may not take the course as READ 6345.

READ 6350  Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. Doctoral students will have assignments that go beyond those for master’s students. Students who took this course as READ 5350 may not take the course as READ 6350.

READ 6352  Theoretical Bases for Literacy
3 Semester Credit Hours (3 Lecture Hours)
Course focus is on major theories of reading and literacy in terms of both processes and practices. It also attends to ways in which theory relates to the literacy curriculum.
READ 6356 Writing for Publications in Higher Education  
3 Semester Credit Hours (3 Lecture Hours)  
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

READ 6357 Critical Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts. Doctoral students have assignments that go beyond those for master’s students. Students who took this course as READ 5357 may not take the course as READ 6357.

READ 6369 Content Area Reading  
3 Semester Credit Hours (3 Lecture Hours)  
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students’ abilities to learn through text based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5369 may not take the course as READ 6369.

READ 6371 Diagnosis and Correction of Reading Problems  
3 Semester Credit Hours (3 Lecture Hours)  
In this course, students will become aware of the factors that influence reading achievement through the study and implementation of various assessments. Some attention will also be paid to instructional strategies. The primary focus will be on children who are having difficulty reading. Students who took this course as READ 5371 may not take the course as READ 6371.

READ 6372 Classroom Assessment and Instruction  
3 Semester Credit Hours (3 Lecture Hours)  
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. Students who took this course as READ 5372 may not take the course as READ 6372.

READ 6380 Advanced Studies in Literature for Children and Adolescents  
3 Semester Credit Hours (3 Lecture Hours)  
This course will examine the historical, sociological, and pedagogical developments of the field of literature for children and adolescents and will emphasize teacher research and inquiry. The major emphasis of the course will focus on awareness of both traditional and contemporary literature and authors for children and adolescents.

READ 6390 Special Topics in Reading  
3 Semester Credit Hours (3 Lecture Hours)  
The course addresses contemporary issues in education. It may be repeated when topics vary.

READ 6391 Evaluation of Literacy Methods, Materials, and Assessment  
3 Semester Credit Hours (3 Lecture Hours)  
Reading professionals taking the course acquire the knowledge and strategies to evaluate literacy-related materials, methodologies, and assessment. In addition, they will develop a process to evaluate teacher-produced and commercial materials.

READ 6392 Psycho-sociolinguistics and Reading  
3 Semester Credit Hours (3 Lecture Hours)  
This course explores the psychology and the social semiotics of language and their relationship to literacy teaching and learning. Theories of cognition and sociolinguistics will be examined as frameworks for better understanding literacy development. Semiotics is the study of the signs and symbols of language and deals with their functions in the syntactic, semantic, and pragmatic use of language. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5392 may not take the course as READ 6392.

READ 6393 Literacy Curriculum and Supervision  
3 Semester Credit Hours (3 Lecture Hours)  
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 6395 Leadership and Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This course emphasizes "how" to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues. Students who took this course as READ 5395 may not take the course as READ 6395.

READ 6396 Literacy Research Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
In this doctoral-level course in reading/literacy research, attention goes to historical and current trends in literacy research, the critical examination of selected reading research studies, and self analysis of personal and professional interests and needs. This course calls for students to integrate information from previous graduate classes with information presented in this class to analyze and implement reading/literacy research. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5396 may not take the course as READ 6396.

READ 6398 Advanced Reading Supervision Practicum  
3 Semester Credit Hours (3 Lecture Hours)  
In this course, reading specialists will be provided with an opportunity to apply their supervisory skills in a practical situation. Students will observe and evaluate inservice teachers, as well as make suggestions for improvement. Course requirements include completion of teacher evaluation summaries; development of observation forms; description of a district-wide reading program; and planning and implementation of an inservice workshop.

READ 6399 Advanced Literacy Research Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to familiarize doctoral students with (a) historical avenues of literacy research, (b) current trends in literacy research, and (c) procedures for conducting personal research leading to a doctoral dissertation in some aspect of literacy education.  
Prerequisite: EDLD 6333.

READ 6696 Directed Individual Study  
1-6 Semester Credit Hours  
May be repeated when topics vary.
Prior to admission, students must:

- meet all requirements of the College of Graduate Studies;
- pass the TX Pre-Admission Content Test (PACT), if your undergraduate degree is not in your certification content area.
- complete a screening essay and read & sign the Texas Teacher Code of Ethics.
- meet all requirements for admission to the graduate program and submit the online graduate application at http://gradschool.tamucc.edu/application.html.
- provide proof of English Language Proficiency must be established by the equivalent to/passing of English 1301 or 1302 or the Test of English as a Foreign Language. A transcript translation must occur by a certified group acceptable to The Higher Education Coordinating Board.
- meet with the College of Education and Human Development Certification Officer to develop a certification plan.

Certification and degree plans that involve TEA/State Board for Educator Certification rules also require approval of the Certification Officer prior to becoming certified to teach. Students desiring to change from their initial choice of certification plan or degree plan must apply to, and be accepted by, the Program Area in which the new plan is offered. Any course waivers within the student’s plan must be filed in the COEHD Certification Office.

### Program Requirements

**Students seeking the Master of Science in Secondary Education and EC-12 or 7-12 Certification must complete all requirements for both prior to certification and/or graduation. Students must complete two semesters of Internship or one semester of Clinical Teaching, along with the required courses, in order to graduate.**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDCI 5340</td>
<td>Instructional Techniques for Effective Teaching</td>
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</tr>
<tr>
<td>EDUC 5351</td>
<td>Foundations of Education in America 1,*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5352</td>
<td>Planning, Teaching, Learning Processes 1,*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5353</td>
<td>Classroom Management and the Student 1,*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5357</td>
<td>Strategies for Teaching in the Secondary School</td>
<td>3</td>
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<tr>
<td>ERST 5302</td>
<td>Studies in Equality of Educational Opportunities **</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5360</td>
<td>Design Strategies for Online Instruction and Learning Management Systems *</td>
<td>3</td>
</tr>
<tr>
<td>IDET 5365</td>
<td>Instructional Materials Development for Learning Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>READ 5369</td>
<td>Content Area Reading</td>
<td>3</td>
</tr>
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</table>

**Clinical Teaching or Internship**

Select one of the following:

**Clinical Teaching**

- 6 hours of clinical teaching

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIEM 5346</td>
<td>Pedagogical Implications of Bilingual/ESL</td>
</tr>
<tr>
<td>or BIEM 534</td>
<td>Methods of Teaching English As a Second Language</td>
</tr>
<tr>
<td>SPED 5315</td>
<td>Individuals with Exceptionalities in Schools</td>
</tr>
</tbody>
</table>

**Internship (if eligible)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>EDUC 5393</td>
<td>Internship I and Seminar for the intern Teacher (and Seminar)</td>
</tr>
<tr>
<td>EDUC 5394</td>
<td>Internship II and Seminar for the intern Teacher (and Seminar)</td>
</tr>
</tbody>
</table>
EDUC 5352 Planning, Teaching, Learning Processes
3 Semester Credit Hours
A course emphasizing the various aspects of planning for teaching: the teaching/learning process; curriculum organization; use of instructional media and technology; instructional planning; and instructional and student evaluation, including standardized testing programs, teacher evaluation, and various forms of instructional and student evaluation planned and conducted by the teacher. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5353 Classroom Management and the Student
3 Semester Credit Hours
A course emphasizing methods of organizing and managing a classroom, and student growth and development concepts and how they will affect classroom management. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5354 Methods of Teaching Mathematics
3 Semester Credit Hours
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5355 Methods of Teaching Social Studies
3 Semester Credit Hours
A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5356 Methods of Teaching Science
3 Semester Credit Hours
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students’ prior knowledge from previous courses will be essential to their performance in this course, namely technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5357 Strategies for Teaching in the Secondary School
3 Semester Credit Hours
A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.
EDUC 5358 Applied Research and Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the finding, interpreting, and use of research to achieve a stated educational goal for each individual student. Concepts of tests and measurements will be emphasized for interpreting research results and gathering data for applied research. Students will develop and execute an applied inquiry project. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5390 Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
This course addresses contemporary issues in education. May be repeated for credit when the topic varies.

EDUC 5393 Internship I and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDUC 5352 - Planning, Teaching, Learning Processes* or have completed EDUC 5352 - Planning, Teaching, Learning Processes* and completed 30 contact hours of field observation.

EDUC 5394 Internship II and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification. prerequisite: EDUC 5393 and 5352.

EDUC 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but are currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate." Prerequisite: EDUC 5393, 5394 and 5327.

EDUC 5397 Practicum I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills for the beginning teachers during their third year on a "Probationary Certificate." Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken concurrently with EDUC 5327 first semester of the third year on a "Probationary Certificate." This course may not be taken for graduate credit if the student has taken EDUC 5393, EDUC 5394 or EDUC 5395. Prerequisite: EDUC 5327, 5393, 5394 and 5395.

EDUC 5398 Practicum II and Seminar for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
Beginning teachers who are currently in their third year of a "Probationary Certificate" are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised supervision for effective classroom teaching. Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second (and final) semester of the third year on a "Probationary Certificate." Prerequisite: EDUC 5327, 5393, 5394, 5395 and 5397.

EDUC 5696 Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
Contemporary issues in educational technology; topics vary with professional interests and needs of participants. This "hybrid" course focuses upon enabling students to design effective instructional activities and materials for on-line instruction within a learning management system (LMS) environment. Students will acquire research-based knowledge about the design and development of effective on-line instruction which is consistent with established best practices. Emphasis will be placed upon development of on-line instruction in curricular areas specified by the instructor or selected by the student, subject to instructor approval.

Special Education, MS
Program Description
The primary objective of the MS Special Education 36 SCH degree is to provide students with an eclectic program in special education that interfaces theory and pedagogy from both the special education and English learner education fields. Students receive specialized training that is unique and specific to the needs of students receiving special education services, including those from culturally and linguistically diverse communities. Students learn instructional methodology to address the needs of students with high-incidence and low-incidence disabilities. Areas of instruction include domains such as: cognitive, communicative, behavioral, social and functional. Students also receive training in consultation, collaboration, and family system support areas.

Student Learning Outcomes
Students will:

• Demonstrate knowledge of the field of special education, including: knowledge of individuals with disabilities, evaluation of individual learning needs, strategies for fostering learning and development, and professional roles and responsibilities.
• Plan and develop effective instructional interventions responsive to the unique needs of individual learners.
• Plan and implement a behavior intervention plan to provide behavioral supports aligned with individual needs.

For Additional Information
Website: http://gradschool.tamucc.edu/degrees/education/special_ed.html
Campus Address: Early Childhood Development Center, Room 233, 361.825.3331
Phyllis.robertson@tamucc.edu

Mailing Address:
Department of Curriculum, Instruction, and Learning Sciences,
Unit 5834
College of Education and Human Development,
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5834

Admission Requirements
Students are eligible to pursue graduate-level course work in Special Education if they meet COEHD graduate admission requirements as specified in the COEHD's Graduate Policies and Regulations (p. 61) section of this catalog.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDFN 5301</td>
<td>Introduction to Research</td>
<td>3</td>
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<tr>
<td>BIEM 5345</td>
<td>Developmental Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>or BIEM 5346</td>
<td>Pedagogical Implications of Bilingual/ESL</td>
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<tr>
<td>SPED 5385</td>
<td>English Learners and Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 5315</td>
<td>Individuals with Exceptionalities in Schools</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(3 sch)</td>
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<tr>
<td>SPED 5320</td>
<td>Application of Learning Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(3 sch)</td>
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<tr>
<td>SPED 5380</td>
<td>Behavioral Supports and Interventions for</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Students with Disabilities</td>
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<tr>
<td>SPED 5386</td>
<td>Strategic Reading and Language Instruction</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>for Students with High-Incidence Disabilities</td>
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<tr>
<td></td>
<td>(3 sch)</td>
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<tr>
<td>SPED 5387</td>
<td>Strategic Math and Content Area Instruction</td>
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<td>for Students with High-Incidence Disabilities</td>
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<tr>
<td>SPED 5340</td>
<td>Individuals with Multiple Disabilities</td>
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<tr>
<td>SPED 5397</td>
<td>Special Education Field Experience</td>
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<td>Electives</td>
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<td>6-12</td>
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<td></td>
<td>courses in consultation with the faculty</td>
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<tr>
<td></td>
<td>advisor</td>
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</tbody>
</table>

Total Hours 36-42

1. All students need to take SPED 5315 Individuals with Exceptionalities in Schools (3 sch); this requirement may be waived for currently certified teachers and those with a previously earned degree in special education if deemed appropriate after consultation with the faculty advisor.

2. All students need to take SPED 5320 Application of Learning Principles (3 sch); this requirement may be waived for students who took SPED 3335 Applied Learning Theory (3 sch) as an undergraduate if deemed appropriate after consultation with the faculty advisor.

Low-Incidence Disabilities Transcribed Certificate

The Low-Incidence Transcribed Certificate is an interdisciplinary program that prepares graduate students to collaboratively serve students with significant support needs through evidence-based practices. This 3-course certificate is offered to educators in the field of special education and other related disciplines, such as: counseling, psychology, general education, and education administration.

To receive a low-incidence disabilities transcribed certificate, the student must complete 9 semester hours of coursework consisting of the following 3 courses.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tr>
<td>SPED 5319</td>
<td>Introduction to Low-Incidence Disabilities</td>
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<td></td>
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<tr>
<td>SPED 5320</td>
<td>Application of Learning Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(3 sch)</td>
<td></td>
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<tr>
<td>SPED 5321</td>
<td>Supporting Access for Students with Low-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Incidence Disabilities</td>
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<tr>
<td></td>
<td>(3 sch)</td>
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</tbody>
</table>

Total Hours 9

* Blended offering

Educational Diagnostician Certificate

The Educational Diagnostician certification program can be taken concurrently with the MS Special Education degree program or alone by a certified teacher who has a graduate degree. This coursework prepares students to assess, diagnose, and support instructional planning for students referred to special education.

To be eligible for the Educational Diagnostician program, the student must be a certified teacher. To be certified as an Educational Diagnostician, the student must have a master's degree, successfully complete up to 33 semester hours for Educational Diagnostician Certification, and pass the required TExES exam.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIEM 5345</td>
<td>Developmental Linguistics</td>
<td>3</td>
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<tr>
<td>or BIEM 5346</td>
<td>Pedagogical Implications of Bilingual/ESL</td>
<td></td>
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<tr>
<td>SPED 5315</td>
<td>Individuals with Exceptionalities in Schools</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(3 sch)</td>
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<tr>
<td>SPED 5386</td>
<td>Strategic Reading and Language Instruction</td>
<td>3</td>
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<td></td>
<td>for Students with High-Incidence Disabilities</td>
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<tr>
<td></td>
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<tr>
<td>SPED 5399</td>
<td>Individualized Programs for Students with</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Exceptionalities: Practicum</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 33

* Online offering

1. All students need to take SPED 5315 Individuals with Exceptionalities in Schools (3 sch); this requirement may be waived for currently certified teachers and those with a previously earned degree in special education if deemed appropriate after consultation with the faculty advisor.

2. All students need to take SPED 5320 Application of Learning Principles (3 sch); this requirement may be waived for students who took SPED 3335 Applied Learning Theory (3 sch) as an undergraduate if deemed appropriate after consultation with the faculty advisor.
Comprehensive Examination
In addition to successful completion of all courses required for graduation, all students are required to pass a comprehensive written examination taken during their final semester of enrollment.

College of Graduate Studies
Mission
The College of Graduate Studies is committed to efficiency and excellence in support of a diverse group of students, faculty, and departments to foster a culture of Inquiry, Innovation and Impact.

Vision
The College of Graduate Studies supports provides a vibrant, challenging, and transformational educational experience that prepares graduates to be responsible global stewards for the public good worthy of international distinction.

For Additional Information
For more information contact:
Campus address:
Faculty Center, Suite 151
Mailing address:
Texas A&M University-Corpus Christi
College of Graduate Studies
6300 Ocean Drive, Unit 5843
Corpus Christi, TX 78412

College of Liberal Arts
The College of Liberal Arts offers Master of Arts programs in the following fields: Communication, English, History, and Clinical Psychology. Additionally, it offers the Master of Public Administration and the Master of Fine Arts in Studio Art. In support of these programs, the college provides graduate courses in the performing arts, the humanities, and the social sciences. Career-oriented courses for teachers are provided in teacher certification areas.

Graduate programs offered by the College of Liberal Arts are designed to provide opportunities for students to engage in academic study at advanced levels. Knowledgeable and professionally active faculty guide students through their cognate disciplines and fields, produce creative and critical works of high quality, and practice the skills and techniques of their disciplines. Emphasis is placed both on the acquisition and on the generation of knowledge.

The college’s graduate degree programs value excellence, and to achieve this end the college seeks to attract students of high potential from diverse backgrounds and encourages intellectual inquiry and creative/scholarly engagement and production.

College of Liberal Arts:
- Our college values learning that results from purposeful relationships within vibrant and dynamic communities.
- Our college values learning that affects the whole individual through all aspects of our humanity (from the emotive to the rational).
- Our college values learning that produces responsible citizens who engage in the communities around them.
- Our college values learning that engages in research and produces scholarship which extends knowledge and, through this, our regional, national, and global reputations.

School of Arts, Media, and Communication (SAMC)
The mission of the School of Arts, Media & Communication is to develop and promote collaboration, innovation, and creation among students and faculty in visual arts, music, theatre, dance, media, and communication. SAMC students engage in experiential learning, develop leadership, teamwork, and organizational skills, and apply 21st century technology in service of expressing and understanding human experience. SAMC offers cultural enrichment and collaborative opportunities to all university students and members of the South Texas community. To support this mission, the School of Arts, Media & Communication subscribes to the highest academic, artistic, and ethical standards.

Program Governance for Graduate Degree Programs
The college Curriculum Committee is composed of a chairperson, a vice-chair, and members from among the faculty qualified to teach graduate courses. In the area of graduate studies, this committee monitors and recommends degree programs, degree requirements and curricula to the faculty.

Program Admission, Continuance, and Completion Requirements
Students in graduate programs in the College of Liberal Arts must meet the minimum standards for admission, continuance, and completion specified by the University, as well as any additional criteria required by the degree program.

All graduate programs in the College of Liberal Arts require students to complete exit requirements. These may vary from written or oral examinations to capstone courses and theses. The exit requirements shall be rigorous and appropriate to the specific discipline. A student must successfully complete the exit requirements described in the course of study to graduate with an advanced degree.

A student on enforced withdrawal may not enroll in any graduate program for a minimum of 12 consecutive months. Please see “Scholastic Probation and Enforced Withdrawal” in the catalog section entitled “Graduate Academic and Degree Requirements (p. 19).”

Student Responsibility
Each student working toward a graduate degree is responsible for meeting the requirements outlined in the degree plan. The student is also responsible for meeting all deadlines: program application, examination, and graduation application. If the deadlines for examination and graduation application are not met, the student will not graduate that semester. In no instance will a student be admitted to degree candidacy without an approved and completed degree plan on file in the office of the college Dean. Amendments to the degree plan must be proposed by the student and approved by the degree committee or program advisor and the college Dean.

Course Load
A student registered for 9 semester hours or more is considered a full-time student. It is recommended that no more than 12 semester hours
should be taken in a regular semester or 6 semester hours during each summer term. A student employed full time should not register for more than 6 semester hours in a regular long semester or 3 semester hours in a summer term.

**Conditional Admission**
To earn a graduate degree, a student who has been accepted conditionally into a program in the College of Liberal Arts must fulfill the requirements of the conditional admission set by the program’s admission committee, as well as all university and college degree requirements. For more information on conditional admission, see “Graduate Student Admission Classifications” in the “Admission (p. 7)”s (p. 7) section of the catalog.

**Non-Degree Seeking Status**
Students classified as non-degree seeking may take graduate courses in the College of Liberal Arts with the approval of the Dean. They also must meet the minimum requirements set by the University for admission. Priority for class enrollment will be given to degree-eligible students. In addition, non-degree seeking students must be approved for registration by the chair of the department offering the course or courses they wish to study. Those students needing additional professional development beyond one semester must seek permission from the Dean of the college. No more than 9 semester hours earned as a non-degree seeking student may be counted toward the requirements for any graduate program in the College of Liberal Arts.

**Graduate Courses**
The Courses A-Z (p. 259) section of the catalog lists the complete course inventory in each teaching area. When registering, the student should always consult the Semester Schedule, which contains the specific course offerings for that term.

Although graduate degrees are not available, courses are offered in the following fields:

- Criminal Justice
- Mexican American Studies
- Music
- Political Science
- Sociology
- Spanish
- Theater

Graduate Courses are listed in the Course A-Z (p. 259) section of the catalog.

**Programs**

- Certificate and Certification Programs (p. 156)
  - Homeland Security, Graduate Certificate (p. 156)
- Master Degree Programs (p. 158)
  - Clinical Psychology, MA (p. 158)
  - English, MA (p. 162)
  - History, MA (p. 166)
  - Public Administration, MPA (p. 169)
- Master Degree Programs - School of Arts, Media & Communication (p. 174)
  - Communication, MA (p. 174)
  - Studio Art, MFA (p. 179)

- Non-Degree - School of Arts, Media & Communication (p. 183)
- Music (p. 184)

**Certificate and Certification Programs**
- Homeland Security, Graduate Certificate (p. 156)

**Homeland Security, Graduate Certificate**

**Program Description**
The Graduate Certificate in Homeland Security is designed to educate students using an all-hazards emergency management model and is meant to prepare future public administration professionals to cope with all natural, accidental and man made hazards. Upon successful completion of this program, students will:

- Demonstrate an understanding of mitigation, preparedness, response and recovery strategies for a broad range of natural hazards, technological hazards, and terrorism.
- Design and modify plans and programs at federal, state, and/or local levels to reflect the evolving strategic policy issues associated with a statutory and presidential direction for homeland security.
- Analyze terrorist groups’ proclivities in order to forecast the risks, types, and orders of magnitude of terrorist threats most likely to confront the nation-state, our state and our region.
- Develop policies, procedures, and protocols to allow seamless agency integration from prevention to incident response and recovery scenarios.
- Recognize the multidisciplinary nature of homeland security functions and be able to assess and integrate various functional areas.

**Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
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<tr>
<td>PADM 5301</td>
<td>Theory and Practice of Public Administration ^</td>
<td>3</td>
</tr>
<tr>
<td>PADM 5302</td>
<td>Policy Making and Public Administration ^</td>
<td>3</td>
</tr>
<tr>
<td>PADM 5380</td>
<td>Homeland Security and Public Administration **</td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following:</td>
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<td></td>
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<tr>
<td>PADM 5381</td>
<td>Modern Terrorism and Counter Terrorism **</td>
<td>3</td>
</tr>
<tr>
<td>PADM 5382</td>
<td>Emergency Management and Disaster Planning Practicum **</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

- PADM 5308 Administrative Law
- PADM 5335 Program Evaluation
- PADM 5360 Strategic Planning
- PADM 5377 Grant Writing

**Total Hours** 15

* Online offering
^ Blended offering
Courses

PADM 5300 U.S. Government Institutions
3 Semester Credit Hours (3 Lecture Hours)
A survey of the major institutions of the U.S. national government, with special attention to the presidency, Congress, and the U.S. Supreme Court. Some comparative discussion of feudalism, parliamentary systems of government, and proportional representation. Brief review of the U.S. Constitution, the federal court structure, and the role of Federal Reserve System. (Credit may not be given for both this course and POLS 5300.)

PADM 5301 Theory and Practice of Public Administration
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the concepts, theories, literature, legal aspects, and practices of public administration and management. Topics include administrative behavior; program planning, management and evaluation; decision-making; structure and processes of organizations; and ethics.

PADM 5302 Policy Making and Public Administration
3 Semester Credit Hours
Relationship of politics and administration with reference to the influence of administration and bureaucracy; legislative bodies; parties, political leadership, interest groups and other forces in the formation and execution of public policy in various levels of, primarily, American government. (Credit may not be given for both this course and POLS 5302.)

PADM 5303 Administrative Ethics
3 Semester Credit Hours (3 Lecture Hours)
A survey of ethical issues faced by public administrators. The course will provide a general grounding in the philosophical and theoretical foundations of ethical inquiry. Special attention will be given to ethical problems arising within hierarchical organizations and to the ethical implications of particular public policies.

PADM 5304 Human Resource Management
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the major personnel management problems and issues in the public sector. The functions of recruitment, selection, development, compensation, and employee relations will be studied. Special attention will be given to the legal environment of personnel.
Prerequisite: PADM 5301.

PADM 5305 Public Budgeting and Finance
3 Semester Credit Hours (3 Lecture Hours)
An analysis of the formation, management, and administration of fiscal policies at all levels of government in the United States. Basic financial management planning, preparation, presentation, and resource allocation analysis.

PADM 5306 Public Sector Fiscal Management and Analysis
3 Semester Credit Hours (3 Lecture Hours)
This course takes an in-depth look at finance and focuses on budget and reform techniques, revenue sources, structure and control, the administration of debt and cash management, including strategies for reducing borrowing costs and increasing the interest earnings of government.
Prerequisite: PADM 5305.

PADM 5308 Administrative Law
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the nature of law, especially the law of administrative procedure. The course examines the separation and delegation of powers, the meaning and functioning of the Administrative Procedures Act, the scope of judicial review, and other remedies against administrative actions. (Credit may not be given for both this course and POLS 5308.)

PADM 5310 Public Organizations
3 Semester Credit Hours (3 Lecture Hours)
A course designed to develop an understanding about public sector organizations, their environments, and the political subsystems in which they exist. The course explores organization theory and administrative behavior to understand and diagnose organizational problems and dynamics in the public sector. Emphasis is placed on organization-environment relationships.

PADM 5311 Research Methods in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
Examination of analytical methods, research techniques, and models of inquiry in the social and administrative sciences. Topics may include problem definition; needs assessment; data gathering, processing and interpretation; survey research; secondary analysis; and demographics. [Cross-listed with IDSY 5311.]
Prerequisite: SOCI 1342, PSYC 1342 and MATH 1342.

PADM 5312 Statistics for Public Administrators
3 Semester Credit Hours (3 Lecture Hours)
Examination of the statistical techniques used by public administrators to include descriptive and inferential statistics. Use of SPSS for analysis of empirical and secondary data sources. Interpretation, analysis and presentation is emphasized. Integration of research design and statistical techniques.
Prerequisite: PADM 5311.

PADM 5313 Survey Research for Public and Non-Profit Managers
3 Semester Credit Hours (3 Lecture Hours)
The ability to conduct and interpret survey research is becoming an integral part of public management. This course provides students with the knowledge and skills needed to direct, understand, and make effective use of administrative and policy information from survey research data.

PADM 5320 Diversity in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
This course examines the importance of diversity, including race/ethnicity, gender and other demographics in public administration at the local, state and federal level and in various types of public agencies.

PADM 5331 Public and Non-Profit Management
3 Semester Credit Hours (3 Lecture Hours)
An examination of theories, processes, and skills in managing the public and non-profit sectors. Topics of study include how to successfully implement policies, administer services and provide public goods, and collaborate with agencies in various sections.

PADM 5332 Resource Development for Non-profit Organizations
3 Semester Credit Hours (3 Lecture Hours)
Examination of the theoretical and practical applications of fundraising. A study of government or non-profit agency grant and contract administration. Applications for responding to funding assistance and solicitations and grants. Contract preparation, evaluation, and presentation.
PADM 5335  Program Evaluation
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to help the pre- and in-service professional public manager conceptualize the program evaluation effort as a meaningful and understandable set of tasks. The course will examine various means of evaluating programs and enable students to develop program evaluation skills, so that they become better contributors and consumers of evaluation and research reports.

PADM 5360  Strategic Planning
3 Semester Credit Hours
A seminar course that gives pre- or in-service managers the tools necessary to consider the long-term mission and direction of the agency and craft strategy and operations from both internal and external stakeholder perspectives. Consideration of strategic planning as a process for implementing strategic management.

PADM 5365  Seminar in Public Administration - Capstone
3 Semester Credit Hours
The capstone course for the MPA program is an integrative approach applying the skills, knowledge and values considered, discussed and acquired throughout the course to selected public and administrative problems through analytical exercises and case studies. All other core courses must be completed prior to enrollment in the capstone. This is the exit requirement for the MPA program. This course must be taken during the last semester prior to graduation.

PADM 5370  Topics in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
Seminar in identified topics in Public Administration. May be repeated when topics vary. Offered on sufficient demand.

PADM 5377  Grant Writing
3 Semester Credit Hours (3 Lecture Hours)
An advanced workshop on the grant proposal writing process, including identifying sources of funding, conducting research to support funding applications, data analysis, tailoring each proposal to a specific funding agency, and the requirements of electronic submission. Students will receive experience writing actual proposals on behalf of local organizations and agencies.

PADM 5380  Homeland Security and Public Administration
3 Semester Credit Hours (3 Lecture Hours)
This course will provide an overview of the essential ideas that constitute the emerging discipline of homeland security. The course is designed for students interested in a broad overview of homeland security policies including topics related to emergency management, intelligence gathering and analysis, infrastructure security, protection of civil liberties, and counter terrorism strategies.

PADM 5381  Modern Terrorism and Counter Terrorism
3 Semester Credit Hours (3 Lecture Hours)
This course will provide an introduction to the operational and organizational dynamics of modern terrorism from the Cold War to the present. This course will study terrorist organizations to understand the ideologies, cultures, structures and causative factors behind major movements. This course will also focus on U.S. efforts to counter terrorism from the Cold War to the Global War on Terrorism.

PADM 5382  Emergency Management and Disaster Planning Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the public policies, procedures and programs for the management of hazards, emergencies and disasters through the use of case studies. It focuses on providing students hands-on experience in emergency management planning and response through the use of tabletop and field exercises. Students will be required to take this course last in the graduate certificate program.

PADM 5396  Individual Study
3 Semester Credit Hours (3 Lecture Hours)
A carefully planned special study on an academic topic, Directed Individual Study (DIS) is a tutorial, directed and evaluated by a member of the graduate public administration faculty. Enrollment is restricted to graduate students who have demonstrated both academic ability and the capacity for independent work. Complete applications must be filed and approved by the MPA coordinator and the Dean of Liberal Arts in advance of registration.

PADM 5397  Internship
3 Semester Credit Hours (3 Lecture Hours)
INTERNSHIP Practical experience with a government or not-for-profit agency arranged in advance by the supervising professor. Periodic visits, consultations, and a final paper. Offered on sufficient demand and by application to the program coordinator.

PADM 5399  Internship
3 Semester Credit Hours
Practical experience with a government or not-for-profit agency arranged in advance by the supervising professor. Periodic visits, consultations, and a final paper.

Master Degree Programs

- Clinical Psychology, MA (p. 158)
- English, MA (p. 162)
- History, MA (p. 166)
- Public Administration, MPA (p. 169)

Clinical Psychology, MA

Program Description
The Master of Arts (MA) in Clinical Psychology program is a 60 semester hour program designed to develop mastery of the scientific principles and methods of psychology and their application to clinical issues. The primary education and training mission of the program is to provide a program of study with an applied clinical emphasis to prepare students for the practice of psychology or counseling at the master’s level of licensure. Students are required to take a sequence of core curriculum coursework that emphasizes major academic areas within the discipline of psychology before advancing to specialized coursework in the area of clinical psychology that prepares them for the professional application of psychological principles. In addition, students receive supervised clinical practicum experience as part of their training. They may also choose to complete an empirical thesis under the supervision of a faculty advisor.

Upon admission, each student will be assigned a faculty advisor who will assist the student with academic decisions during the course of the degree program. During their first year in the program students will also meet with the Graduate Coordinator to develop a degree plan.

Upon completion of the program, graduates will meet the necessary qualifications to take the Texas State Board of Examiners of
Psychologists examination for certification as a Licensed Psychological Associate (LPA). With additional coursework and experience, graduates may elect to take the Licensed Professional Counselor (LPC) or Licensed Specialist in School Psychology (LSSP) examinations. Following licensure, graduates typically work under the supervision of a licensed psychologist, or as independent practitioners in a variety of public agency and private settings.

**Student Learning Outcomes**

- Graduates of the MA Clinical Psychology program will demonstrate knowledge of developmental, empirical, physiological and social psychology principals.
- Graduates will demonstrate mastery of the basic principles of clinical assessment and their therapeutic application as well as the ethical use of these principles.
- Graduates who choose the thesis option will be able to conduct independent research of psychological phenomenon as evidenced by successful completion and defense of their thesis in accordance with departmental guidelines.

For Additional Information

**Website:**
https://www.tamucc.edu/liberal-arts/departments/psychology-sociology/clinical-psychology-ma/index.php

**Physical Address:**
Bay Hall Room 311
Phone: (361) 825-4129

**Mailing Address:**
Department of Psychology and Sociology
Mailstop 5730
College of Liberal Arts
Texas A&M University-Corpus Christi, 6300 Ocean Drive
Corpus Christi, Texas 78412-5730

**E-mail:**
Yuliana.zaikman@tamucc.edu

**Admission Requirements**

In addition to the university admission requirements outlined for all graduate programs, the MA Clinical Psychology program requires:

- A bachelor's degree in psychology, or a bachelor's degree with 15 semester hours of undergraduate coursework in psychology for unconditional admission. This foundational undergraduate coursework must include general psychology, statistics, experimental psychology, and six hours of upper division psychology electives. (Students may be conditionally accepted into the program contingent upon completion of the required undergraduate courses.)
- A cumulative grade point average (G. P. A.) of no less than 3.0 on a 4-point scale.
- Graduate Record Exam (G. R. E.) scores taken within the last five years from the application date.
- Two letters of evaluation from individuals such as professors and employers who can attest to the applicant's potential for success in a graduate program of study. Letters of evaluation should specifically address the applicant's potential for a successful career as well as qualifications and motivation for graduate study.
- An application essay. Applicants must submit a 500-1,000 word essay describing their educational and professional goals as well as their qualifications for graduate study (e.g., academic achievements, research experience, relevant work or volunteer experience, etc.).

**Admission Deadline**

The graduate program in Clinical Psychology only accepts students for Fall admission. Application materials should be submitted electronically by following the instructions at https://gradcollege.tamucc.edu/new_students/application_process.html. Materials must be submitted by March 1 for full consideration for Fall admission.

**Admission to the Program**

Upon receipt of all application materials, the MA Clinical Psychology Admissions Committee will meet to review the application materials. Only complete applications are evaluated. The committee will review applications for the fall semester only. The committee may choose to admit, conditionally admit, or deny admission, based on the information contained in the application materials.

For unconditional admission, applicants must be a graduate of a regionally accredited university or, if an international student, have the equivalent of an U.S. accredited degree as determined by the Dean or Graduate Studies. Applicants must have completed at least 15 hours of undergraduate psychology and possess an overall grade point average (G. P. A.) of no less than 3.0 on a 4-point scale. (These are minimum requirements; admission to the program is competitive and also dependent upon the size and quality of the overall applicant pool).

Applicants with less than a 3.0 G. P. A. may be admitted to the program if the graduate admissions committee determines that the student's G. R. E. combined verbal and quantitative scores and other application materials compensate for the deficient G. P. A.

Applicants admitted into the program must meet with the Graduate Coordinator to develop an initial degree plan. The degree plan indicates whether foundational coursework is required and outlines the prescribed graduate coursework, examinations, and other requirements needed to complete the MA Clinical Psychology degree.

**Conditional Admission**

At the discretion of the admissions committee, students who have not completed all of the required undergraduate courses (general psychology, statistics, experimental psychology, and 6 hours of upper division electives) may be conditionally accepted into the program contingent upon completion of the required undergraduate courses.

**Program Requirements**

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PSYC 5311</td>
<td>Research Methods and Statistics I</td>
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</tr>
<tr>
<td>PSYC 5312</td>
<td>Research Methods and Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5321</td>
<td>Biological Bases of Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5323</td>
<td>Advanced Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5324</td>
<td>Advanced Developmental Psychology</td>
<td>3</td>
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<tr>
<td><strong>Required Clinical Courses</strong></td>
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<tr>
<td>PSYC 5322</td>
<td>Advanced Personality Theories</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5341</td>
<td>Graduate Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5342</td>
<td>Professional Issues and Ethics in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5343</td>
<td>Intellectual Assessment</td>
<td>3</td>
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</tbody>
</table>
and evaluating the student's performance.

registers for practicum, and will have overall responsibility for supervising it. The Practicum Supervisor will arrange the assignment of the student successfully pass the written comprehensive examination. Students will participate in three practicum placements as part of their clinical training. In order to register for practicum, a student must identify any areas of concern early on and to provide proper support to students before their difficulties become more significant. Unless there is a notable problem, students will not receive formal feedback from the Fall students before their difficulties become more significant. Unless there is an informal evaluation of first-year students will take place in the Fall (at the end of the first semester in the program). The purpose of this is to inform the student's progress in the program will be formally evaluated annually at the end of each Spring semester by a committee of graduate faculty. Development of this presentation will be under the direction of the case which will be presented during the oral examination with the therapy and testing case conducted during their practicum placement.

### Additional Performance Evaluation

Students' progress in the program will be formally evaluated annually at the end of each Spring semester by a committee of graduate faculty. Each student will be evaluated in the areas of academic performance, clinical skill development, and professionalism. Student progress will be rated as “proficient,” “satisfactory,” or “needs improvement” in each of these three areas. Any areas rated as "needs improvement" may require an improvement plan (consisting of remedial steps with specific timelines) for the student. Students must make progress on documented deficiencies (as evaluated by the faculty committee) before continuing in the program. Multiple consecutive ratings of "needs improvement" on the same criteria may result in dismissal from the program. The results of the annual evaluation, including any improvement plans, will be shared with the student in a letter written by the student’s assigned faculty mentor.

In addition to the formal evaluation of all students in the Spring, an informal evaluation of first-year students will take place in the Fall (at the end of the first semester in the program). The purpose of this is to identify any areas of concern early on and to provide proper support to students before their difficulties become more significant. Unless there is a notable problem, students will not receive formal feedback from the Fall evaluation.

### Practicum

Students will participate in three practicum placements as part of their clinical training. In order to register for practicum, a student must successfully pass the written comprehensive examination. Students must apply for practicum the semester before they intend to register for it. The Practicum Supervisor will arrange the assignment of the student to a practicum training facility during those semesters the student registers for practicum, and will have overall responsibility for supervising and evaluating the student’s performance.

### Thesis Option

Students may also elect to complete a thesis option in addition to the required coursework. This involves six credit hours (completed over two semesters) in which the student designs and conducts an original research study, resulting in a written thesis that is presented to the student’s thesis committee. This option may be best suited to those students who wish to pursue advanced clinical training at the doctoral level. In general, students who complete a thesis can expect to take longer to complete the required program of coursework.

Students who elect to complete a thesis are encouraged to begin thesis work as soon as possible after being admitted to the program. In consultation with the assigned advisor, the student will select a thesis committee consisting of a chair (primary thesis advisor) and two additional university faculty. The chair and one of the members must be full time graduate faculty members within the psychology department. The student is expected to work closely with the committee chair when designing and executing the thesis research project. In consultation with the thesis committee, a proposal defense meeting will be scheduled. The student should distribute copies of the proposal to the committee members at least one week prior to the time of the proposal defense meeting. Upon successful completion of the thesis proposal meeting, the student will obtain permission (if applicable) of the institutional review board (IRB) to begin collecting data. When permission is granted, the student will collect data and complete the final thesis manuscript. Once the manuscript is complete, the student must successfully complete an oral defense and submit their thesis according to the instructions and deadlines detailed in the College of Graduate Studies’ student handbook for Master's students.

### Exit Requirement for All Students

An oral examination will be given toward the end of the program over a therapy and testing case conducted during their practicum placement. Students are required to prepare a comprehensive written analysis of the case which will be presented during the oral examination with the faculty. Development of this presentation will be under the direction of the practicum faculty supervisor and the final draft of the paper must be approved before the oral exam. The practicum faculty supervisor is responsible for scheduling and administering the oral examination. The oral examination is graded as “satisfactory”, “conditional” or “re-examination required.” If deficiencies are identified during the exam, additional requirements may be added for successful completion of this requirement and may include, but are not limited to: repeating the examination, resubmission of written examination materials, or repeating a practicum placement. The student may retake the oral examination once, with a second failure resulting in termination from the program.

### Additional Exit Requirements for Students Completing a Thesis

A final oral thesis defense will be required of all students completing a thesis. The chair of the thesis committee is responsible for scheduling and administering the final oral defense. The thesis defense is graded "pass" or "fail." The student may retake the final oral examination once. When the final version of the thesis is completed and all committee members have approved the final document, the student is required to submit the thesis according to the instructions and deadlines detailed in the College of Graduate Studies’ student handbook for Master’s students. When submitting their thesis, students are required to order and purchase two bound copies of their thesis (one for the University library and one for the Department of Psychology & Sociology).
**Grade-Point Average**

A minimum grade-point average of 3.0 ("B") on a 4 point scale in all graduate-level work taken at this university is required for graduation. In addition, a minimum grade-point average of 3.0 ("B") is required in all psychology courses (PSYC prefix) taken at the graduate level. No grade of less than "C" and no more than two "C's" earned at this university will be accepted as credit for any Master's program (please see graduate academic and degree requirements in the graduate catalog). Students receiving more than two grades of "C" in their coursework will be terminated from the program.

**Registration Restrictions**

Students who have not been accepted into the MA Clinical Psychology program (Non Degree Seeking Students or students enrolled in other programs) may enroll in:

<table>
<thead>
<tr>
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<td>PSYC 5323</td>
<td>Advanced Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5324</td>
<td>Advanced Developmental Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Students who enroll in these courses must satisfy the course prerequisites (see Courses A-Z (p. 259)). Permission of the instructor is required for enrollment in any other graduate course in Psychology.

**Courses**

**PSYC 5311 Research Methods and Statistics I**

3 Semester Credit Hours (3 Lecture Hours)

The purpose of this course is to provide beginners knowledge on topics related to Psychological methodology and statistics. Specifically, the course will cover a range of topics related to standard normal curve, t-scores, z-scores, transformation of scales, reliability, validity, confidence intervals, effect size, item analysis and factor analysis. The course will cover these topics within the context of t-tests, correlation and regression analyses. It will also cover the research methods in which these tests are most commonly used: non-experimental methods such as survey and longitudinal studies.

**Prerequisite:** (MATH 1342 and PSYC 3411).

**PSYC 5312 Research Methods and Statistics II**

3 Semester Credit Hours (3 Lecture Hours)

The purpose of this course is to provide advanced knowledge on topics related to psychological methodology and statistics. Specifically, the course will cover the following statistical tests: ANOVA, non-parametric statistics, between, within/repeated and mixed studies design. Furthermore, it will also cover the research designs in which these tests are commonly used. Specifically, the course will focus primarily on quantitative and qualitative experiments.

**Prerequisite:** PSYC 5311.

**PSYC 5321 Biological Bases of Behavior**

3 Semester Credit Hours (3 Lecture Hours)

The study of the anatomy and physiology of the human nervous system including neural transmission, motor systems, speech and higher cortical functions with special emphasis on the physiological changes associated with pathological conditions and their impact on human behavior. Core course.

**PSYC 5322 Advanced Personality Theories**

3 Semester Credit Hours (3 Lecture Hours)

A survey of the major approaches to the study of personality. Psychoanalytic, trait, behavioral and humanistic paradigms will be studied with respect to theory, research, and therapeutic application.

**PSYC 5323 Advanced Social Psychology**

3 Semester Credit Hours (3 Lecture Hours)

A survey of social psychological theory and research. Topics include attitudes, cognition, interpersonal relationships, social influence, prejudice, and group behavior.

**PSYC 5324 Advanced Developmental Psychology**

3 Semester Credit Hours (3 Lecture Hours)

A review of research and theories on normal physical, cognitive, emotional, and social development across the lifespan.

**PSYC 5341 Graduate Psychopathology**

3 Semester Credit Hours (3 Lecture Hours)

Theories, processes and issues related to the development, evaluation, and classification of deviant behaviors.

**PSYC 5342 Professional Issues and Ethics in Psychology**

3 Semester Credit Hours (3 Lecture Hours)

This course is designed to introduce graduate students to the ethical standards and contemporary issues affecting professional conduct in the field of psychology. The topics covered revolve around ethical conduct in practice and research, as well as the decision-making foundations for resolving ethical issues. In addition to ethical standards, legal issues affecting professional practice will be covered in detail.

**PSYC 5343 Intellectual Assessment**

3 Semester Credit Hours (3 Lecture Hours)

Instruction in the theoretical, ethical and practical application of intellectual assessment in a clinical setting using standardized instruments, such as the WAIS-IV and WISC-IV. Also reviews the current development and use of other instruments that assess cognitive function.

**PSYC 5344 Personality Assessment**

3 Semester Credit Hours (3 Lecture Hours)

Personality assessment and interpretation using standard instruments such as MMPI, CPI, TAT, and Rorschach.

**PSYC 5345 Family Theory, Practice and Therapy**

3 Semester Credit Hours (3 Lecture Hours)

Provides an introductory survey of the major theories and theorists in the area of the psychological formulation of family theory. This course will cover various theories of family therapy as well as assessment of family dynamics, and the implications for the application of family theory in practice. A review of the research done in the area and the applicability of the research findings in practice.

**PSYC 5348 Projective Techniques**

3 Semester Credit Hours (3 Lecture Hours)

An in-depth study of projective techniques for personality assessment. The main instrument studied is the Rorschach inkblot Test using the Beck system. Also covered are the Thematic Apperception Test (TAT), House-Tree-Person Projective Technique, and Draw-a-Person Techniques.
PSYC 5349 Diversity Issues and Multiculturalism in Psychology
3 Semester Credit Hours (3 Lecture Hours)
This purpose of this course is to build foundation on multicultural competencies and skills to provide culturally relevant, sensitive, and effective psychotherapy services and assessments to diverse populations. Students will obtain a thorough review on multicultural awareness, skills and knowledge which will improve competencies related to the practice of psychology. Evaluation of culture from the standpoint of both the therapist and client in the delivery of therapeutic services is the key feature of this course. Thus, the course will provide a sociopolitical perspective as well as identify how specific forms of oppression operate and impact clinical practice and psychology research.

PSYC 5350 Introduction to Psychotherapy
3 Semester Credit Hours (3 Lecture Hours)
The course includes a review of numerous theoretical approaches to psychotherapy, with a reliance on information from research-supported psychotherapeutic approaches. Students will learn the similarities and differences between these approaches at both the theoretical and technical level. Various stages of treatment and a range of important issues in conducting psychotherapy are considered. Students will develop a general understanding of the process of therapy, an ability to conceptualize client problems in a way that suggests potential interventions, and knowledge of techniques that can facilitate improvement.

PSYC 5351 Child Psychopathology
3 Semester Credit Hours (3 Lecture Hours)
The course will take a developmental approach in explaining child psychopathology. The course will include a consideration of diagnostic, epidemiological, developmental, and psychophysiological determinants of behavior.
Prerequisite: PSYC 5324 and 5341.

PSYC 5352 Therapy with Multiple Clients: Interpersonal and Group Dynamics
3 Semester Credit Hours (3 Lecture Hours)
This course will engage graduate-level students in the study of the principal theories of group therapy and family therapy. The class will focus on the theoretical, ethical, and practical and culturally-informed application of both group process and family therapy.

PSYC 5355 Group Psychotherapy
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to introduce the graduate student to the theoretical and applied issues related to the practice of group psychotherapy. Examines a variety of therapeutic groups as well as issues related to the practice of group psychotherapy with special populations.
Prerequisite: PSYC 5350.

PSYC 5356 Applied Behavioral/Cognitive Psychology
3 Semester Credit Hours (3 Lecture Hours)
The focus of this course will be on key cognitive and affective bases of behavior and the manner in which these interact with environmental influences. The course will cover how essential concepts within these areas are linked to theoretical conceptualizations of behavior and psychopathology. Theoretical principles will be linked to applications within clinical psychology and to evidence-based interventions for psychological disorders.

PSYC 5357 Psychopharmacology
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to introduce the graduate student to the basic classes of psychotropic drugs and their effects on human behavior. The course will begin with a basic review of how drugs are processed and used by the body including pharmacokinetics, pharmacodynamics and neural transmission. A discussion of the chemical properties of both therapeutic drugs and drugs of abuse by drug class will follow, including a discussion of the most common drugs used to treat psychological disorders. A previous course in graduate Physiological Psychology (PSYC 5321) is a prerequisite for this course.
Prerequisite: PSYC 5321.

PSYC 5360 Seminar in Psychology
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of various topics within psychology such as those related to history, clinical, social, experimental and business and industrial. May be repeated when topics vary.

PSYC 5395 Thesis
3 Semester Credit Hours
Independent research under the direction of a faculty member. May be repeated to a total of six semester hours.

PSYC 5396 Individual Study
3 Semester Credit Hours
Individual study, reading or research with faculty direction and evaluation. Offered on application to and approval of the program coordinator. No more than 6 hours will be counted towards the degree.

PSYC 5398 Clinical Practicum
3 Semester Credit Hours
Supervised experience in a placement such as a community mental health/mental retardation agency. May be repeated. (Limited to degree students in the Psychology program or graduates of the psychology program working on the LSSP [Licensed Specialist in School Psychology]). Liability insurance required. Enrollment is dependent on the number of suitable practicum sites available.

English, MA

Program Description
The MA in English Program offers all candidates the opportunity to grow intellectually and creatively through the advanced study of language, literature, and writing. The program offers a variety of opportunities designed to:

• further students' understanding of writing, composition theory, linguistics, literature, and literary theory;
• encourage awareness and application of transnational and/or border studies perspectives;
• develop accomplished teachers of English at the secondary and community college levels;
• prepare skilled professional/technical writers and writing trainers;
• provide students with the background and skills needed to pursue terminal degrees in English or American Studies.

The English MA faculty is committed to an integrated understanding of English as a field of study.

Student Learning Outcomes
At the end of the program, students will demonstrate:
• proficiency in critical reading, writing, and thinking at the graduate level;
• understanding and application of core knowledge, vocabulary, and concepts in the discipline;
• proficiency in scholarly methods of research and inquiry; and
• appropriate preparation for individual career paths within the profession.

Good Standing

Students must maintain a 3.0 ("B") grade point average to remain in good standing in the English MA Program. Students whose cumulative GPA drops below 3.0 will be placed on scholastic probation. If, while on scholastic probation, a student’s GPA for any semester again drops below 3.0, the student will be forced to withdraw from the university for at least one year before reapplying for admission. Grades are not replaced when repeated at the graduate level.

For Additional Information

Website:
http://cla.tamucc.edu/english/pages/english_graduate.html

Campus Address:
Faculty Center (FC), Room 267
phone: (361) 825-2483

Mailing Address:
English MA Program Coordinator
Department of English, College of Liberal Arts
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5813

E-mail:
susan.garza@tamucc.edu

Admission Requirements

1. Applicants must comply with the university procedures and requirements in applying for admission to the English Graduate Program. Application is made through the Office of Recruitment and Admissions, with duplicate materials submitted to the English Graduate Program Coordinator.

2. Applicants must submit through the Office of Recruitment and Admissions a portfolio that includes:
   • A letter (2-4 pages long) from the candidate addressed to the English Graduate Committee introducing the candidate and describing:
     • academic background,
     • short and long-term professional goals,
     • the connection between the candidate’s short and long term personal or professional goals and the candidate’s desire to pursue graduate study in English at Texas A&M University-Corpus Christi, and
     • additional details about the candidate’s background, language proficiency, and other personal information relating to individual/career goals that may have influenced the decision to pursue graduate study.
   • A recent academic writing sample of at least 2000 words, which the applicant believes displays exemplary analytic and stylistic features.
   • Three letters of recommendation.

3. Admission to the program will be granted based upon undergraduate performance, writing ability, demonstrated commitment to professional goals, and other favorable indicators presented in the portfolio. All criteria will be considered, and no factor will be assigned a specific weight. Based upon the English Graduate Committee’s evaluation of the student’s application portfolio, the student will be unconditionally admitted, conditionally admitted, or denied admission. If the student is conditionally admitted, the conditions of acceptance will be stated in writing.

4. The English Graduate Committee may recommend that applicants lacking the English undergraduate major complete certain upper-division undergraduate English course work before applying to the program.

5. A limited number of scholarships and graduate assistantships are available to first-year students. Application should be made directly to the English Graduate Program Coordinator.

Program Requirements

The candidate for the English MA degree must complete 36 graduate hours in English with a "B" average. Credit for no more than one "C" earned at this university may be applied to the degree. In addition to the 9 hours of core courses, students choosing the thesis option will take 9 hours of core courses, 6 hours in Writing studies, 6 hours in Literary Studies, 9 hours of English electives, and 6 hours of ENGL 5390 (Thesis), 3 hours in one semester and 3 hours in a separate semester. Students choosing the non-thesis option will take 9 hours of core courses, 6 hours in Writing Studies, 6 hours in Literary Studies, and 15 hours of English electives. A maximum of 3 credit hours of ENGL 5396 Individual Study (1-3 sch) may count toward the degree.

In keeping with University policy, an academic department can have requirements that are stricter than the University’s. The English department allows fewer grades of C to count toward a graduate degree than some other departments.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 5301</td>
<td>Theory and Practice I: Literary Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 5303</td>
<td>Theory and Practice II: Writing Studies</td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following Linguistics courses:</td>
<td>3</td>
<td></td>
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<tr>
<td>ENGL 5380</td>
<td>Seminar in Sociolinguistics</td>
<td></td>
</tr>
<tr>
<td>ENGL 5381</td>
<td>Introduction to Linguistics</td>
<td></td>
</tr>
<tr>
<td>ENGL 5385</td>
<td>Seminar in Applied Linguistics</td>
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</tbody>
</table>

Writing Studies and Literary Studies

Writing Studies

Select 6 hours of Writing Studies courses from the following: 6

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 5360</td>
<td>Writing Assessment</td>
<td></td>
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<tr>
<td>ENGL 5361</td>
<td>BASIC WRITING THEORY AND PEDAGOGY</td>
<td></td>
</tr>
<tr>
<td>ENGL 5362</td>
<td>Digital Rhetoric</td>
<td></td>
</tr>
<tr>
<td>ENGL 5363</td>
<td>Rhetoric</td>
<td></td>
</tr>
<tr>
<td>ENGL 5369</td>
<td>TOPICS AND GENRES IN RHETORIC AND COMPOSITION</td>
<td></td>
</tr>
<tr>
<td>ENGL 5375</td>
<td>Creative Writing</td>
<td></td>
</tr>
<tr>
<td>ENGL 5376</td>
<td>Professional Writing</td>
<td></td>
</tr>
</tbody>
</table>
The English comprehensive examination measures students’ ability to integrate, synthesize, and reflect on the learning achieved during the program. While students receive a solid foundation in both Writing Studies and Literary Studies, they will become more specialized in the program. While students receive a solid foundation in both Writing Studies and Literary Studies, they will become more specialized in the program. Students preparing for the comprehensive exam should seek the help of their graduate mentor as early as possible in selecting appropriate coursework. Students may apply to write a thesis after completing 18 hours of coursework. Once accepted as a thesis candidate, students are expected to work closely with their committee in designing and executing the thesis. The 6 credit hours toward the thesis (ENGL 5395) must be taken in two separate semesters. An oral defense of the thesis will be scheduled at the end of the second semester or when the committee chair determines that the student is ready to defend. Thesis guidelines and application forms are available from the English Graduate Program Coordinator or from the Office of the Dean of the College of Liberal Arts.

Graduate Degree Mentor

Upon admission into the program, the student will be notified of his/her mentor, who will be a member of the English graduate faculty. Students are expected to meet with their mentor once a semester as they advance through the program. The mentor will work closely with the student to ensure that all degree requirements are met and that each student pursues the most advantageous course of study for his/her future goals.

Degree Plan

Each student working toward a graduate degree is responsible for meeting the requirements outlined in the degree plan. The student is also responsible for meeting all deadlines: program application, examination, and graduate application. If the deadlines for examination and graduation application are not met, the student will not graduate that semester. In no instance will a student be admitted to degree candidacy without an approved and completed degree plan on file in the office of the Dean of College of Liberal Arts. Amendments to the degree plan must be proposed by the student and approved by the Graduate Committee or program advisor and the Dean of College of Liberal Arts. Amendments to the degree plan must be proposed by the student and approved by the Graduate Committee or program advisor and college dean.

Transfer of Credit

In addition to the University’s general policy on transfer of credit, the following regulations will apply to the MA in English program: Up to 9 semester hours of graduate-level study may be transferred from other regionally accredited institutions of higher education if appropriate to the degree. No course with a grade of less than a “B,” and no course that has counted toward the earning of another graduate degree, will be accepted as transfer credit. Credit that is more than seven years old at the time of graduation will not be counted toward the MA degree.
Courses

ENGL 5301 Theory and Practice I: Literary Studies
3 Semester Credit Hours
Introduces students to techniques of research and scholarship in literary study through a survey of critical debates in literary theory. Offered in the Fall.

ENGL 5303 Theory and Practice II: Writing Studies
3 Semester Credit Hours
Introduces students to techniques of research and scholarship in writing studies through a survey of critical debates in writing studies scholarship, with special attention to current research on composing and its pedagogical implications. Offered in Spring semesters only.

ENGL 5340 British Literature Before 1660
3 Semester Credit Hours (3 Lecture Hours)
Examination of poetry, drama, or prose written before 1660. Sample topics: The Global Renaissance, Digital Shakespeare, Writing Women in Early English Literature. May be repeated for credit when topics vary.

ENGL 5342 British Literature 1660 - 1830
3 Semester Credit Hours (3 Lecture Hours)
Studies of major writers and texts of the British long eighteenth century (1660 - 1832). Primary focus is on the literary texts, and cultural history of the period, with opportunities to bring in current literary theories and criticism. Sample topics: Gender and Sexuality in the Novel, Gothic Fiction, Travel Writing. May be repeated for credit when topics vary.

ENGL 5343 British Poetry and Fiction 1900-Present
3 Semester Credit Hours (3 Lecture Hours)
Exploration of one or more writers, genres, literary movements, issues, or ideologies of the period. Includes writers from the British Isles and the Commonwealth. May be repeated for credit when topics vary.

ENGL 5344 British Literature 1830 - 1900
3 Semester Credit Hours (3 Lecture Hours)
Studies of British fiction, poetry, and prose written between 1830 and 1900 and the social forces—domestic, economic, political, religious, scientific—that influenced and were influenced by these works. Sample topics: Social change and the Victorian body; Victorian fun; Victorians and Empire. May be repeated for credit when topics vary.

ENGL 5345 American Literature to 1865
3 Semester Credit Hours (3 Lecture Hours)
Readings in one or more writers, genres, literary movements, issues, or ideologies of the period. Sample topics: Transoceanic Americas: Literatures amid the Spanish Empire, American Print Cultures, Medicine and Early American literature. May be repeated for credit when topics vary.

ENGL 5346 American Literature 1865-1940
3 Semester Credit Hours (3 Lecture Hours)
Studies in one or more writers, genres, literary movements, issues, or ideologies of the period. Sample topics: The Lost Generation, Modernism and the Harlem Renaissance, Falkner and the South. May be repeated for credit when topics vary.

ENGL 5347 American Literature 1945-Present
3 Semester Credit Hours (3 Lecture Hours)
Exploration of one or more major writers, genres, literary movements, issues, or ideologies since World War II. Sample topics: Experimental Narrative, US-Latin American Literature and Culture, The Postmodern Novel. May be repeated for credit when topics vary.

ENGL 5349 TOPICS AND GENRES IN LITERATURE
3 Semester Credit Hours (3 Lecture Hours)
Studies in topics and genres that span more than one literary period and/or include works from both British and American literature. Sample topics: Crossing Borders, Crossing Nations, The City in Literature, Queer Theory. May be repeated for credit when topics vary.

ENGL 5360 Writing Assessment
3 Semester Credit Hours
Study and practice in methods by which written texts are evaluated and the evaluation used for instructional purposes. Methods range from classroom techniques to formal assessment procedures (holistic, primary trait, portfolio, etc.).

ENGL 5361 BASIC WRITING THEORY AND PEDAGOGY
3 Semester Credit Hours (3 Lecture Hours)
Studies in the theory and pedagogy of the teaching of developmental writing. Focus centers on the political, sociolinguistic, and educational history and status of basic writers.

ENGL 5362 Digital Rhetoric
3 Semester Credit Hours
Explores the dynamics of online, networked reading and writing practices by examining the rhetorical, social, cultural, political, educational, and ethical dimensions of digital texts and examines issues of technology and literacy in digital spaces. Students will create digital texts in a variety of media, genres, and contexts.

ENGL 5363 Rhetoric
3 Semester Credit Hours
Examination of classical and modern traditions in rhetoric and their application to written discourse. Topics focus on contributions of classical and modern rhetoricians, written literacy, and the institutionalization of written instruction.

ENGL 5364 Visual Rhetoric
3 Semester Credit Hours (3 Lecture Hours)
Students will develop a broad understanding of the definition of visual rhetoric, learn to analyze texts by identifying the visual elements that comprise texts, understand how to use visual rhetoric, and create their own texts.

ENGL 5365 Summer Institute Writing Workshop
3 Semester Credit Hours (3 Lecture Hours)
This course is the Summer Institute of the Coastal Bend Writing Project, affiliated with the National Writing Project. It is a writing workshop designed for teachers of all levels (pre-k through university level) and subject areas, meaning we will study and practice writing in ways that benefit teachers personally and professionally. In this workshop, we will study theory and effective practices in writing pedagogy, and focus on improving participants’ writing and research skills. As a site of the National Writing Project, this course is backed by a national network of scholars and data-based practices.

ENGL 5366 TOPICS AND GENRES IN RHETORIC AND COMPOSITION
3 Semester Credit Hours (3 Lecture Hours)
Exploration of specific issues and problems in rhetoric and composition studies. Sample topics: ethnographic research, gender and writing. May be repeated for credit when topics vary.

ENGL 5367 COMPOSITION THEORY AND PEDAGOGY
3 Semester Credit Hours (3 Lecture Hours)
COMPOSITION THEORY AND PEDAGOGY A study of works by contemporary rhetoric/composition specialists, with special regard to the theoretical basis of composing and its pedagogical implications. Offered in Spring.
ENGL 5375 Creative Writing  
3 Semester Credit Hours (3 Lecture Hours)  
A studio approach to writing fiction, non-fiction, and poetry, with an emphasis on the elements and critical terminology of each genre.

ENGL 5376 Professional Writing  
3 Semester Credit Hours (3 Lecture Hours)  
Workshop on the genres and practices of professional writing and communication.

ENGL 5377 Grant Writing  
3 Semester Credit Hours (3 Lecture Hours)  
An advanced workshop on the grant proposal writing process, including identifying sources of funding, conducting research to support funding applications, data analysis, tailoring each proposal to a specific funding agency, and the requirements of electronic submission. Students will receive experience writing actual proposals on behalf of local organizations and agencies.

ENGL 5378 Seminar in Critical Theory  
3 Semester Credit Hours  
Exploration of topics related to language and culture, including but not limited to an introduction to sociolinguistics, language variation, disclosure analysis, language planning and policy, multilingualism, and world Englishes. May be repeated when topics vary.

ENGL 5379 Workshop on Writing  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
Variable topics in English, offered in a practical, workshop setting when there is sufficient demand. Grade assigned will be “credit” (CR) or “no credit” (NC).

History, MA

Program Description
The History MA is a face-to-face 30-hour program for individuals seeking further academic training in the practice of historical research and mastery of historical knowledge. This program aims to provide students with advanced knowledge and skills in the content, analytical theories, research methods, and public presentation of history. Students have an opportunity to study topics in European, Latin American, and United States history. Courses are designed to train students in the critical skills of examining historical evidence, reading and interpreting historical scholarship, undertaking archival research, and confronting and discussing ideas about the past in writing and in public.

The MA in History is designed for students who wish to become historians, develop academic skills for careers in public history or archival science, or wish to prepare for PhD programs. It provides professional development for secondary education teachers and those seeking professions in non-profit, educational, and governmental sectors. The program also encourages students to involve themselves with historical activities and institutions in the metropolitan area.

Student Learning Outcomes
- Advanced knowledge and skills in content, analytical theories, research methods, and public presentation of history.
- Enhanced breadth of coverage, preparation, and professional skills for post-graduate application of MA in History – secondary schools, Ph.D. programs, or public history employment.
- Advanced competency in using archival resources, conducting research, handling primary sources, constructing original historical theses, and effective writing.

For Additional Information
Website:  
http://cla.tamucc.edu/humanities/history/history_graduate_program.html

Campus Address:  
Faculty Center (FC), Room 270A  
Phone: (361) 825-5783

Mailing Address:  
Department of Humanities, College of Liberal Arts  
Texas A&M University-Corpus Christi  
6300 Ocean Drive, Unit 5814  
Corpus Christi, Texas 78412-5814

Admission Requirements
Applicants must comply with all university admissions procedures outlined in the graduate catalog in effect at the time of their seeking admission into the program. They must also satisfy additional history area requirements. The combined requirements are listed below.

Applicants must:
1. Complete at least 6 hours of upper-level undergraduate history credits, with a GPA of 3.0 or better.
2. Submit an application on the appropriate university form to the Office of Recruitment and Admissions.
3. Submit official transcripts of all previous college-level studies to the University’s Office of Recruitment and Admissions.
4. Submit two letters of recommendation, at least one from a professor in the undergraduate major, to the Coordinator of Graduate Studies in History.
5. Submit a writing sample (minimally seven double-spaced pages in length with proper citations) of previous academic work in history to the Coordinator of Graduate Studies in History.
6. Submit an essay stating education and professional goals. Include the reason for applying to this program in particular. Include an explanation for unusual application (lower than required GPA, or returning non-traditional student, or no Undergraduate History).

Students who cannot meet the requirements stated above may be accepted for admission if the History Graduate Committee decides this is appropriate.

A history admissions committee chaired by the Coordinator of Graduate Studies in History, and including two additional tenure-line members of the full-time faculty in history, will review the above materials. Basing their decision upon the information contained in all of the above items, the committee will unconditionally admit, conditionally admit, or deny admission. Students with conditional status for one term may accrue no more than 6 hours of graduate credit towards the MA prior to being formally admitted to the program.

International students must have their credentials evaluated for their equivalent value according to standard university procedure and meet other admissions requirements specified in the graduate catalog.

Program Requirements
All students must complete their respective requirements with a 3.0 GPA or better, and can earn no more than one “C” grade in their graduate work.

Students may transfer up to 12 hours of graduate credit from accredited institutions.

Exit Requirements
History graduate students may pursue two tracks to complete their degree based on each student’s career objectives.

The exam track is designed for students for whom the MA is the terminal degree. With the exam track, students must pass a written comprehensive examination during the term of expected graduation. The student’s committee will administer and evaluate the examination, designating the performance as a “pass with distinction,” “pass,” or “fail.” Any student who fails the comprehensive examination may retake it once within one calendar year. Failure to pass the examination a second time results in termination from the program.

The thesis track is designed for students who intend to pursue further academic study. The history MA thesis requires substantial commitment and ongoing consultation with the student’s graduate advisor. Thesis students must defend the thesis in an oral examination, administered by the student’s committee. Evaluators will give a grade of “pass with distinction,” “pass,” or “fail.” If the student receives a failing grade, the student may resubmit the project a second time. Failure on the second submission will result in the student’s termination from the program. Thesis students are also required to demonstrate competence in a second language, either by having successfully completed two years of an approved language as an undergraduate, or by successful completion of a language exam.

Students must use the required College of Graduate Studies forms and meet the deadlines for thesis committee formation and scheduling of the thesis defense. The thesis must meet the College of Graduate Studies thesis formatting requirements in addition to those of their discipline. For CGS deadlines and forms, refer to the CGS website and/or CGS Masters Handbook.

Areas of Concentration
By the end of the first year of study and in consultation with their graduate advisor, students will choose one of four areas of concentration in accordance with their academic and career objectives. Each concentration has an exam and a thesis track option.

General Historical Studies
- History core courses (9 hours)
- Thesis track: 15 graduate hours beyond the core with no more than one approved non-history elective, six hours of HIST 5395: Thesis, and the equivalent of two years of a foreign language
- Exam track: 21 graduate hours beyond the core with no more than two approved non-history electives

Public History and Archives
- History core courses (9 hours)
- One designated public history course (approved by the adviser or program coordinator) (3 hours)
- HIST 5390: Internship in History (3 hours)
- Thesis track: 9 additional graduate hours with no more than one approved non-history elective, six hours of HIST 5395: Thesis, and the equivalent of two years of a foreign language. Students may opt for either a traditional research-based or a public history project-based thesis.

Program Requirements

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<tr>
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<tr>
<td>HIST 5310</td>
<td>Historiography</td>
<td>3</td>
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<tr>
<td>HIST 5320</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>HIST 5380</td>
<td>Seminar in History</td>
<td>3</td>
</tr>
</tbody>
</table>

Supplementary Courses
Select one of the following tracks: 21

Exam Track
- Select 15 hours of history courses
- Select 6 hours of either history or approved non-history graduate courses

Thesis Track
- Select 12 hours of history courses
- Select 3 hours of either history or approved non-history course

HIST 5395 Thesis 1

Total Hours 30

1 After 24 hours of graduate coursework, students will complete six hours of HIST 5395 Thesis (3 sch).

Thesis Track
Thesis students must also complete two years of a second language at the undergraduate level (or the equivalent credit by examination.)
• Exam track: 15 additional graduate hours with no more than two approved non-history electives

**History and Teaching**

• History core courses (9 hours)
• 3-hour course on the practice and methods of teaching college-level history (as approved by the program coordinator)
• Thesis track: 12 additional graduate hours with no more than one approved non-history elective, six hours of HIST 5395: Thesis, and the equivalent of two years of a foreign language
• Exam track: 18 additional graduate hours with no more than two approved non-history electives

**History and Interdisciplinary Studies**

• History core courses (9 hours)
• Two approved non-history graduate courses (6 hours) in an interdisciplinary field of the student’s choice or design, in consultation with the program coordinator and faculty adviser. Possible fields of study include Visual and Media Studies; Gender, Sexuality, and Queer Studies; Race, Migration, and Borderlands; and American Studies
• Thesis track: 9 additional graduate hours in history, six hours of HIST 5395: Thesis, and the equivalent of two years of a foreign language
• Exam track: 15 additional graduate hours in history

**Graduate Advisor/Graduate Committee**

By the end of a student’s first academic year, the student will identify a graduate faculty advisor. In conjunction with the academic advisor, students will determine their preferred track. By the end of a student’s second academic year, the student and graduate faculty advisor will identify a graduate faculty committee consisting of no less than two additional tenure-line history faculty.

**Degree Plan**

The degree plan, signed by the student and graduate faculty advisor, will become official when approved by the Dean, no later than the end of the second year of study. Any courses to remove deficiencies in undergraduate academic preparation will be included, along with the minimum number of graduate hours, in the degree plan and must be taken before any graduate level hours. Exceptions may be made if only three undergraduate hours are required, in which case they may be taken concurrently with a graduate level course.

**Internships**

Internships will consist of 50 to 100 hours of work with private and public sponsoring agencies. Some internships will be paid by the sponsoring agency; most will not, depending on the resources available to the sponsoring agency. The student, one member of the History graduate faculty, and an administrator in the sponsoring agency, will design the internship. The latter two individuals will supervise the student’s performance during the internship. The student will submit a written report of the experience to the supervising faculty member within one month of the end of the internship. The student’s faculty supervisor will grade the internship report on a credit/noncredit basis.

**Transfer of Credit**

In addition to the University’s general policy on transfer of credit, the following regulations will apply to the MA in History program: Up to 12 semester hours of graduate-level study may be transferred from other accredited institutions of higher education if appropriate to the degree. No course with a grade of less than a “B”, and no course that has counted toward the earning of another graduate degree will be accepted as transfer credit. Credit that is more than seven years old will not be counted toward the MA degree.

**Courses**

**HIST 5310 Historiography**

3 Semester Credit Hours (3 Lecture Hours)

A study of the literature of history with attention to the differing methodological approaches and their evolution over time. Required of all graduate students in history.

**HIST 5320 Research Methods**

3 Semester Credit Hours (3 Lecture Hours)

Students will develop and practice research skills using primary sources and write an original research paper. Topics will vary according to the course instructor. Required of all graduate students in history.

**HIST 5322 Research Seminar: The American Civil War**

3 Semester Credit Hours

RESEARCH SEMINAR: THE AMERICAN CIVIL WAR Students will write a research paper in Civil War history based largely on primary source materials. Topics will be tailored to fit the student’s needs and interests in consultation with the course instructor.

**HIST 5323 Seminar: the Gilded Age**

3 Semester Credit Hours (3 Lecture Hours)

Thematic seminar examining the late-nineteenth century America. Topics include the New South, the closing of the frontier, corporate enterprise and its effects on work and society, the party system, populism, the city, and overseas expansion.

**HIST 5324 Seminar: U.S. Modern Popular Culture**

3 Semester Credit Hours (3 Lecture Hours)

Explores leading examples of U.S. modern popular culture from the late nineteenth century to the present, with attention to interpretations and theories that help explain cultural change. Topics include consumerism, motion pictures and television, sports, music, and popular literature.

**HIST 5328 Seminar: Mexican American History**

3 Semester Credit Hours (3 Lecture Hours)

A study of the events, personalities, organizations, and individuals that have been critical in the development of the modern Mexican American community. Emphasizes politics and organization building.

**HIST 5329 Seminar: United States Women’s History**

3 Semester Credit Hours (3 Lecture Hours)

A seminar that will include readings on women’s historiography, and also will address several key topics in American women’s history, including: plantation, slave, and immigrant women, activism, sexuality, work, religion, politics, societal prescriptions of femininity, and mass cultural influences.

**HIST 5331 Seminar: U.S. From 1945 to Present**

3 Semester Credit Hours (3 Lecture Hours)

A study of U.S. social, political, cultural, and economic history in the decades following World War II. Topics include the Cold War, foreign relations, the Civil Rights movement, Vietnam, and the Sixties.
HIST 5333  Seminar: Early American History  
3 Semester Credit Hours (3 Lecture Hours)  
Examines early American history from European contact through the American Revolution. Topics and themes include slavery, class, gender, environmental history, religion, the movement of peoples, the encounter between Indians and Europeans, and the formation of democratic institutions.

HIST 5336  Seminar: United States Urban History  
3 Semester Credit Hours (3 Lecture Hours)  
A study of the geographic, economic, social, and political development of American cities, the structuring of the country’s urban networks, and the evolution of American urban life.

HIST 5337  Seminar: Religion and Society in Early America  
3 Semester Credit Hours (3 Lecture Hours)  
Examines the religious history of early America from European contact through the antebellum period, with a focus on the vibrant religious cultures early Americans created and the ways they used religion to understand themselves and order their world.

HIST 5338  Seminar: History of American Education  
3 Semester Credit Hours (3 Lecture Hours)  
A thematic seminar that examines the history of American public education since the 19th century. Topics include the role of the state in educating citizens, common schools, the feminization of teaching, vocational education, immigrant education, bilingual education, school desegregation, and urban school movements.

HIST 5335  Seminar: Colonial Mexico  
3 Semester Credit Hours (3 Lecture Hours)  
An examination of economic, social and political developments in colonial New Spain, as well as an attempt to place New Spain in a larger regional context.

HIST 5355  Youth and Protest in the Americas  
3 Semester Credit Hours  
An examination of recent approaches to the study of youth in Latin America and North America. Explores youth activism as a window into understanding how age functions as a category of analysis. Topics include university reform movements, consumer culture, and labor struggles.

HIST 5360  Public History: Corpus Christi and South Texas  
3 Semester Credit Hours (3 Lecture Hours)  
A discussion of the role and use of history outside traditional academic settings. Introduction to the work of historical associations, historic preservation, historic editing, museums and archives, and oral history, with discussion of techniques for incorporating such resources into teaching.

HIST 5370  Oral History: Techniques and Practice  
3 Semester Credit Hours (3 Lecture Hours)  
An introduction to the methodology and practice of planning, conducting, editing, and transcribing interviews with eyewitnesses to or participants in historic events, highlighting Corpus Christi and the South Texas region.

HIST 5372  Seminar: Pacific Rim  
3 Semester Credit Hours  
Examines critical intersections among the histories of Asia, the Pacific, and the Americas since the turn of the nineteenth century, with a focus on interdisciplinary theoretical and methodological approaches to human migration, critical race and ethnic studies, war and colonialism, gender ideology, and borderland studies in transnational and diasporic contexts.

HIST 5373  Seminar: Modern East Asia  
3 Semester Credit Hours  
Designed to help students develop bibliographical and historiographical command of modern East Asian history, the course examines the recent scholarly literature on the paradigm of modernization, colonialism, revolution, gender, class, and historical memory in the region’s three principal states-China, Korea, and Japan.

HIST 5380  Seminar in History  
3 Semester Credit Hours  
An intensive study of selected issues, periods, regions, or themes in history based on independent reading, research, and writing by the student. May be repeated when topics vary. This course is delivered either in classroom or through online technology. When delivered through online technology, students must have access to a computer and Internet to complete course work.

HIST 5390  Internship in History  
3 Semester Credit Hours (3 Lecture Hours)  
A hands-on experience in historical work. Arranged in consultation with the student’s advisor. May be repeated when topics vary. Grade assigned will be “credit” (CR) or “no credit” (NC).  
Prerequisite:.  
HIST 5395  Thesis  
3 Semester Credit Hours  
May be repeated once for credit.

HIST 5396  Individual Study  
1-3 Semester Credit Hours  
Individual study, reading or research with faculty direction and evaluation. Topic must not duplicate regular graduate courses and must be in the field of expertise of the instructor.

Public Administration, MPA  
Program Description  
The Master of Public Administration (MPA) program seeks to be recognized as the primary source for public sector leadership training for the governmental and non-profit entities in South Texas. We will achieve this by offering the opportunity for the historically underserved Hispanic population of our region the opportunity to obtain a Master of Public Administration degree that is recognized as meeting or exceeding national professional standards and competencies. Additionally, we will attract high quality students from our region, the state, the nation, and the world by offering public sector based curriculum opportunities that utilize the natural laboratory and educational opportunities that our unique geographic location provides.

The MPA has been designed to meet the needs of full-time employees wishing to earn their degree through part-time study. Students in the program will take a core of seven courses in order to increase their understanding of administrative theory, policy making, data analysis, public budgeting and finance, and human resource management.

Additionally, each student will select one of three program tracks, which specify the remaining course work in their program. The student may choose from specialized tracks in public management, healthcare administration, public safety, and non-profit management.

MPA degree program is available in a hybrid format.
Student Learning Outcomes
As a member of the Network of Schools of Public Policy, Affairs, and Administration (NASPAA), students must demonstrate five universal required competencies related to the current needs and status of the public service. Student learning outcomes mirror those five domains below:

1. Lead and manage in public governance.
2. Participate in and contribute to the policy process.
3. Analyze, synthesize, think critically, solve problems and make decisions.
4. Articulate and apply a public service perspective to administrative and policy decisions and actions.
5. Communicate and interact productively with a diverse and changing workforce and citizenry.

Certificates in Public Administration
Graduate Academic Certificate Programs In Public Administration

1. Role of Academic Certificate Programs in Public Administration at Texas A&M University – Corpus Christi
The Public Administration Program at Texas A&M-Corpus Christi offers academic certificate programs for graduate credit. The graduate academic certificates enhance existing bachelor’s or master’s degrees in ways that will make Texas A&M University-Corpus Christi a life-long center of graduate education for the citizens of Texas, the nation, and the world. The Public Administration graduate credit certificate programs are an option for individuals who do not need a master’s degree, or who wish to combine a specialization in public administration with master’s degree they have already earned or will earn. Students may want to earn certificates in public administration in order to enhance their careers with government and/or non-profit organizations.

2. Application Process
Students applying for graduate certificate programs in public administration must submit the following:
- A Texas Uniform Application for Graduate School for Texas A&M-Corpus Christi
- Official undergraduate and/or graduate transcripts
- Two letters of evaluation attesting to the applicant's potential for success in this program of study.
- A 300-500 word essay describing work experience, educational goals, professional goals, languages spoken and any other material that would be relevant. The essay should also address the reasons and motivations for seeking a graduate certificate.

3. Admission Standards
Students applying to Certificate programs have the same admissions requirements as those applying for admission to the MPA Degree. This includes those that have been accepted into another regionally accredited graduate studies program or have received a graduate degree. Texas A&M Corpus Christi graduate students outside the MPA program may apply for admission into the certificate program if they have a GPA of 3.0 or higher and if they submit the following:
- Current graduate transcripts
- Application for Admission Form for Certificate Program
- Brief essay outlining reason for seeking admission into the program

4. General Prerequisites for the Graduate Certificate

a. Writing Competency: Students must demonstrate a minimum writing ability suitable to graduate work early in their course work toward the graduate certificate in. Students must have completed ENGL 3301 Technical and Professional Writing (3 sch) or ENGL 5376 Professional Writing (3 sch) or equivalent course before being admitted into the program. Writing competency will be assessed by the student essay submitted during the application process and by a review of the student transcripts. Students judged deficient in writing skills can meet this requirement through successful (“B” or better) completion of an approved composition course. This basic writing requirement is in addition to the 15 hour program of graduate courses leading to the certificate.

b. Political Science Competency: Students must have a basic understanding of U.S. government and politics. Thus, students must have completed POLS 2305 U.S. Government and Politics (3 sch) or its equivalent in the past five years before being admitted into this program. At the discretion of the Program Coordinator, applicants lacking the basic proficiencies described above may be required to complete up to 9 semester hours of upper-level undergraduate credit before being admitted to the program.

After earning the Certificate, if students wish to continue taking credit hours they must change their status to seeking an MPA degree so they can continue registering in graduate public administration courses.

For Additional Information
Website: http://cla.tamucc.edu/socialsciences/public_administration/master_in_public_administration.html

Campus Address:
Bay Hall 349
phone: (361) 825-2696

Mailing Address:
Department of Social Sciences, College of Liberal Arts
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5826

E-mail: mpa@tamucc.edu

Admission Requirements
In addition to the admission requirements outlined for graduate programs, the MPA program requires the following:

- Transcripts of all undergraduate and graduate work undertaken from regionally accredited universities.
- Two letters of evaluation from individuals such as professors and employers attesting to the applicant’s potential for success in a graduate program of study. Letters of evaluation should specifically address the applicant’s potential for a successful career and motivation for graduate study.
- A 300-500 word essay describing work experience, educational goals, professional goals, languages spoken and any other material that would be relevant. The essay should also address the reasons and motivations for seeking an MPA degree.
- A full resume.
Applicants accepted into the program must develop an initial degree plan that is approved by the MPA Coordinator. The student is assigned an academic advisor.

The Admission Decision
Basing their decision on the information contained in all items listed above, the MPA Admissions Committee will unconditionally admit, conditionally admit, or deny admission to the MPA program. Only complete applications are evaluated. For full consideration of admission and scholarship applications, a completed admissions packet must be received by April 15th for Fall semester admissions; by October 15th for Spring admissions. For unconditional admission, applicants must be a graduate of a regionally accredited university or, if an international student, have the equivalent of a U.S. accredited degree as determined by the Dean of Graduate Studies. Applicants must have an overall grade point average (GPA) of no less than 3.0 on a 4-point scale. Applicants with less than a 3.0 GPA may be conditionally admitted to the program if the graduate admissions committee determines that the student’s other application materials compensate for the deficient GPA.

Conditional Admission
Applicants who lack certain requirements for unconditional admission may be accepted in the conditional admission category. Those approved for conditional admission are required, during their first nine semester hours of work toward the degree, to earn a “B” or better in PADM 5301 Theory and Practice of Public Administration (3 sch); PADM 5302 Policy Making and Public Administration (3 sch); and PADM 5311 Research Methods in Public Administration (3 sch). To earn unconditional admission in the MPA program, the student must earn a grade of at least “B” in each of the three courses without earning a grade of “C” or lower. Failure to attain a grade of “B” or higher in each of these courses, or to successfully complete all program basic proficiency requirements, will result in enforced withdrawal from the program. In special circumstances, the Admissions Subcommittee may also make conditional admission contingent on other additional requirements as it sees fit. Any additional requirements will be specified in writing to the student.

Certificate Seeking
This category includes students who may enroll in graduate coursework to meet personal or career goals and seek a Graduate Certificate in a specialized field of Public Administration. These admission criteria are addressed in the Graduate Certificate in Public Administration section.

Non-Degree Seeking
This category includes students who may enroll in graduate coursework to meet personal or career goals. For the MPA program, students in this category will be restricted to enrolling only in the MPA core courses.

Degree Plan
During the first semester after qualifying for acceptance into the MPA program, a degree plan should be developed for approval by the Graduate Coordinator. The degree plan should be prepared by the student in consultation with the advisor and indicate the course work required for conferral of the MPA degree, including any basic proficiency requirements (see below) and internship hours where appropriate.

Prerequisites
At the discretion of the MPA Graduate Coordinator, applicants lacking the basic proficiencies described above or public sector experience may be required to complete up to 12 semester hours of upper-level undergraduate credit before being admitted to the program.

Basic Proficiencies
1. Statistics: Students who have not successfully completed a college statistics course must do so in their first semester in the MPA program. Students lacking an undergraduate statistics course can meet this requirement through successful (“B” or better) completion of an approved course in statistics. See your advisor to determine an appropriate course to meet your needs. This basic statistics requirement is in addition to the 36 semester hour program of graduate courses leading to the MPA.

2. Writing Competency: Students must demonstrate a minimum writing ability suitable to graduate work early in their course work toward the MPA. Competency will be assessed through a brief composition test. Students judged deficient in writing skills can meet this requirement through successful (“B” or better) completion of an approved composition course. See your advisor to determine an appropriate course to meet your needs. This basic writing requirement is in addition to the 36 hour program of graduate courses leading to the MPA.

3. Computer Literacy: Students must provide evidence of computer literacy during their first semester in the MPA program. This can be done through evidence of successful (“B” or better) completion of a basic undergraduate computer skills course, or through documentation of significant practical work experience with computer software packages. See your advisor to determine an appropriate course to meet your needs. This basic computer literacy requirement is in addition to the 36 hour program of graduate courses leading to the MPA.

Program Requirements
The Master of Public Administration degree requires a minimum of 36 hours of graduate academic course work.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PADM 5301</td>
<td>Theory and Practice of Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PADM 5302</td>
<td>Policy Making and Public Administration</td>
<td>3</td>
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<tr>
<td>PADM 5304</td>
<td>Human Resource Management</td>
<td>3</td>
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<tr>
<td>PADM 5305</td>
<td>Public Budgeting and Finance</td>
<td>3</td>
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<tr>
<td>PADM 5310</td>
<td>Public Organizations</td>
<td>3</td>
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<tr>
<td>PADM 5311</td>
<td>Research Methods in Public Administration</td>
<td>3</td>
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<tr>
<td>PADM 5365</td>
<td>Seminar in Public Administration - Capstone</td>
<td>3</td>
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Program Tracks
Select one of the following tracks: 15

Health Care Administration Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCAD 5312</td>
<td>The Health Care System</td>
<td>2</td>
</tr>
<tr>
<td>HCAD 5320</td>
<td>Health Economics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 5325</td>
<td>Health Care Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 5330</td>
<td>Health Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 5390</td>
<td>Health Care Selected Topics</td>
<td>3</td>
</tr>
</tbody>
</table>

Public Management Track

 Broad and general preparation
Select five public management courses from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PADM 5300</td>
<td>U.S. Government Institutions</td>
<td>3</td>
</tr>
</tbody>
</table>
**Public Administration, MPA**

**Non-Profit Management Track**

Focus on non-profit management

Select five non-profit management courses from the following:

- PADM 5303 Administrative Ethics
- PADM 5306 Public Sector Fiscal Management and Analysis
- PADM 5308 Administrative Law
- PADM 5313 Survey Research for Public and Non-Profit Managers
- PADM 5320 Diversity in Public Administration
- PADM 5331 Public and Non-Profit Management
- PADM 5335 Program Evaluation
- PADM 5360 Strategic Planning
- PADM 5370 Topics in Public Administration (with coordinator approval)
- PADM 5377 Grant Writing
- PADM 5382 Emergency Management and Disaster Planning Practicum
- PADM 5385 Individual Study (with coordinator approval)
- PADM 5399 Internship

**Public Safety Track**

Focus on public safety

Select five public safety courses from the following:

- COSC 6374 Computer Forensics
- COSC 6376 Network Security
- PADM 5313 Survey Research for Public and Non-Profit Managers
- PADM 5320 Diversity in Public Administration
- PADM 5331 Public and Non-Profit Management
- PADM 5335 Program Evaluation
- PADM 5370 Topics in Public Administration (with coordinator approval)
- PADM 5377 Grant Writing
- PADM 5380 Homeland Security and Public Administration
- PADM 5381 Modern Terrorism and Counter Terrorism
- PADM 5382 Emergency Management and Disaster Planning Practicum
- PADM 5396 Individual Study (with coordinator approval)
- PADM 5399 Internship

**Non-Profit Management Track**

Focus on non-profit management

Select five non-profit management courses from the following:

- PADM 5313 Survey Research for Public and Non-Profit Managers
- PADM 5320 Diversity in Public Administration
- PADM 5331 Public and Non-Profit Management
- PADM 5335 Program Evaluation
- PADM 5360 Strategic Planning
- PADM 5370 Topics in Public Administration (with coordinator approval)
- PADM 5377 Grant Writing
- PADM 5396 Individual Study
- PADM 5399 Internship

**Total Hours** 36

1. All MPA core courses must have been completed before the capstone course is taken. Course is to be taken in the last term prior to graduation.

2. It is strongly recommended that this course be taken before the others in HCAD track if at all possible.

**Completion Requirements**

Successful completion of the MPA degree involves the following conditions:

1. Completion of all 36 semester hours for graduation within a seven-year time period. The 36 semester hours must be those specified in an approved degree plan.

2. Completion of 24 of the required 36 semester hours in residence at this university. Only 12 semester hours may be transferred from accredited institutions. No grade of "C" or lower may be transferred. No correspondence courses may be transferred at the graduate level. Credit from a degree earned at another institution will not be applied to a second master's degree at Texas A&M University-Corpus Christi.

3. The student must maintain a graduate grade point average of 3.0 in all courses in the approved MPA degree plan or accepted by approved waiver, and in all graduate work taken at this university. Students receiving more than two grades of "C" in their coursework will be terminated from the program.

4. The student is making satisfactory academic progress if courses identified on the degree plan are being completed and a grade point average of 3.0 is maintained. Satisfactory progress is also reflected by a return to a grade point average of 3.0 or higher for students who had been placed on scholastic probation.

5. Students should apply for graduation early in the term in which they intend to complete their final semester credits.

6. Successful completion of the capstone course, PADM 5365 Seminar in Public Administration - Capstone (3 sch), in the last term prior to graduation. All MPA core courses must have been completed before the capstone course is taken.

**Courses**

**Health Care Administration Courses**

**HCAD 5312 The Health Care System**

3 Semester Credit Hours (3 Lecture Hours)

Focus on the major components of the American health care system and related issues in the administration of care delivery. Policy information and political issues are discussed.

**HCAD 5320 Health Economics and Policy**

3 Semester Credit Hours (3 Lecture Hours)

Analysis and evaluation of classical and modern economic theory, principles and procedures applicable to the health care delivery system and their implications for public policy.

**HCAD 5325 Health Care Financial Management**

3 Semester Credit Hours (3 Lecture Hours)

Overview of concepts, principles and uses of basic accounting and budgeting information for the health care manager. Focuses on providing the nurse administrator with a basis for understanding the fiscal status of a health care organization; Includes 45 hours of laboratory time to strengthen financial skills including ROI, budget development, FTEs and financial statement analysis. This course is cross-listed with NURS 5360. This course is delivered through online technology.
HCAD 5330 Health Law and Ethics
3 Semester Credit Hours (3 Lecture Hours)
A study of the legal and related ethical aspects of the health care delivery system including governing boards, liabilities, consent and malpractice as well as other related topics. Current governmental, state and other regulating bodies are presented.

HCAD 5390 Health Care Selected Topics
3 Semester Credit Hours (3 Lecture Hours)
In-depth study and discussion of various topics relevant to health care administration. May be repeated when topics vary.

HCAD 5396 Directed Independent Study
1-3 Semester Credit Hours
See College Description.

Public Administration Courses

PADM 5300 U.S. Government Institutions
3 Semester Credit Hours (3 Lecture Hours)
A survey of the major institutions of the U.S. national government, with special attention to the presidency, Congress, and the U.S. Supreme Court. Some comparative discussion of federalism, parliamentary systems of government, and proportional representation. Brief review of the U.S. Constitution, the federal court structure, and the role of Federal Reserve System. (Credit may not be given for both this course and POLS 5300.)

PADM 5301 Theory and Practice of Public Administration
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the concepts, theories, literature, legal aspects, and practices of public administration and management. Topics include administrative behavior; program planning, management and evaluation; decision-making; structure and processes of organizations; and ethics.

PADM 5302 Policy Making and Public Administration
3 Semester Credit Hours
Relationship of politics and administration with reference to the influence of administration and bureaucracy, legislative bodies, parties, political leadership, interest groups and other forces in the formation and execution of public policy in various levels of, primarily, American government. (Credit may not be given for both this course and POLS 5302.)

PADM 5303 Administrative Ethics
3 Semester Credit Hours (3 Lecture Hours)
A survey of ethical issues faced by public administrators. The course will provide a general grounding in the philosophical and theoretical foundations of ethical inquiry. Special attention will be given to ethical problems arising within hierarchical organizations and to the ethical implications of particular public policies.

PADM 5304 Human Resource Management
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the major personnel management problems and issues in the public sector. The functions of recruitment, selection, development, compensation, and employee relations will be studied. Special attention will be given to the legal environment of personnel.
Prerequisite: PADM 5301.

PADM 5305 Public Budgeting and Finance
3 Semester Credit Hours (3 Lecture Hours)
An analysis of the formation, management, and administration of fiscal policies at all levels of government in the United States. Basic financial management planning, preparation, presentation, and resource allocation analysis.

PADM 5306 Public Sector Fiscal Management and Analysis
3 Semester Credit Hours (3 Lecture Hours)
This course takes an in-depth look at finance and focuses on budget and reform techniques, revenue sources, structure and control, the administration of debt and cash management; including strategies for reducing borrowing costs and increasing the interest earnings of government.
Prerequisite: PADM 5305.

PADM 5308 Administrative Law
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the nature of law, especially the law of administrative procedure. The course examines the separation and delegation of powers, the meaning and functioning of the Administrative Procedures Act, the scope of judicial review, and other remedies against administrative actions. (Credit may not be given for both this course and POLS 5308.)

PADM 5310 Public Organizations
3 Semester Credit Hours (3 Lecture Hours)
A course designed to develop an understanding about public sector organizations, their environments, and the political subsystems in which they exist. The course explores organization theory and administrative behavior to understand and diagnose organizational problems and dynamics in the public sector. Emphasis is placed on organization-environment relationships.

PADM 5311 Research Methods in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
Examination of analytical methods, research techniques, and models of inquiry in the social and administrative sciences. Topics may include problem definition; needs assessment; data gathering, processing and interpretation; survey research; secondary analysis; and demographics. (Cross-listed with IDSY 5311.)
Prerequisite: SOCI 1342, PSYC 1342 and MATH 1342.

PADM 5312 Statistics for Public Administrators
3 Semester Credit Hours (3 Lecture Hours)
Examination of the statistical techniques used by public administrators to include descriptive and inferential statistics. Use of SPSS for analysis of empirical and secondary data sources. Interpretation, analysis and presentation is emphasized. Integration of research design and statistical techniques.
Prerequisite: PADM 5311.

PADM 5313 Survey Research for Public and Non-Profit Managers
3 Semester Credit Hours (3 Lecture Hours)
The ability to conduct and interpret survey research is becoming an integral part of public management. This course provides students with the knowledge and skills needed to direct, understand, and make effective use of administrative and policy information from survey research data.

PADM 5320 Diversity in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
This course examines the importance of diversity, including race/ethnicity, gender and other demographics in public administration at the local, state and federal level and in various types of public agencies.

PADM 5331 Public and Non-Profit Management
3 Semester Credit Hours (3 Lecture Hours)
An examination of theories, processes, and skills in managing the public and non-profit sectors. Topics of study include how to successfully implement policies, administer services and provide public goods, and collaborate with agencies in various sections.
PADM 5322 Resource Development for Non-profit Organizations
3 Semester Credit Hours (3 Lecture Hours)
Examination of the theoretical and practical applications of fundraising. A study of government or non-profit agency grant and contract administration. Applications for responding to funding assistance and solicitations and grants. Contract preparation, evaluation, and presentation.

PADM 5335 Program Evaluation
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to help the pre- and in-service professional public manager conceptualize the program evaluation effort as a meaningful and understandable set of tasks. The course will examine various means of evaluating programs and enable students to develop program evaluation skills, so that they become better contributors and consumers of evaluation and research reports.

PADM 5360 Strategic Planning
3 Semester Credit Hours
A seminar course that gives pre- or in-service managers the tools necessary to consider the long-term mission and direction of the agency and craft strategy and operations from both internal and external stakeholders to achieve those goals. Consideration of strategic planning as a process for implementing strategic management.

PADM 5365 Seminar in Public Administration - Capstone
3 Semester Credit Hours
The capstone course for the MPA program is an integrative approach applying the skills, knowledge and values considered, discussed and acquired throughout the core courses to selected public and administrative problems through analytical exercises and case studies. All other core courses must be completed prior to enrollment in the capstone. This is the exit requirement for the MPA program. This course must be taken during the last semester prior to graduation.

PADM 5370 Topics in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
Seminar in identified topics in Public Administration. May be repeated when topics vary. Offered on sufficient demand.

PADM 5377 Grant Writing
3 Semester Credit Hours (3 Lecture Hours)
An advanced workshop on the grant proposal writing process, including identifying sources of funding, conducting research to support funding applications, data analysis, tailoring each proposal to a specific funding agency, and the requirements of electronic submission. Students will receive experience writing actual proposals on behalf of local organizations and agencies.

PADM 5380 Homeland Security and Public Administration
3 Semester Credit Hours (3 Lecture Hours)
This course will provide an overview of the essential ideas that constitute the emerging discipline of homeland security. The course is designed for students interested in a broad overview of homeland security policies including topics related to emergency management, intelligence gathering and analysis, infrastructure security, protection of civil liberties, and counter terrorism strategies.

PADM 5381 Modern Terrorism and Counter Terrorism
3 Semester Credit Hours (3 Lecture Hours)
This course will provide an introduction to the operational and organizational dynamics of modern terrorism from the Cold War to the present. This course will study terrorist organizations to understand the ideologies, cultures, structures and causative factors behind major movements. This course will also focus on U.S. Efforts to counter terrorism from the Cold War to the Global War on Terrorism.

PADM 5382 Emergency Management and Disaster Planning Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the public policies, procedures and programs for the management of hazards, emergencies and disasters through the use of case studies. It focuses on providing students hands-on experience in emergency management planning and response through the use of tabletop and field exercises. Students will be required to take this course last in the graduate certificate program.

PADM 5396 Individual Study
3 Semester Credit Hours (3 Lecture Hours)
A carefully planned special study on an academic topic. Directed Individual Study (DIS) is a tutorial, directed and evaluated by a member of the graduate public administration faculty. Enrollment is restricted to graduate students who have demonstrated both academic ability and the capacity for independent work. Complete applications must be filed and approved by the MPA coordinator and the Dean of Liberal Arts in advance of registration.

PADM 5397 Internship
3 Semester Credit Hours (3 Lecture Hours)
INTERNSHIP Practical experience with a government or non-profit agency arranged in advance by the supervising professor. Periodic visits, consultations, and a final paper. Offered on sufficient demand and by application to the program coordinator.

PADM 5399 Internship
3 Semester Credit Hours
Practical experience with a government or not-for-profit agency arranged in advance by the supervising professor. Periodic visits, consultations, and a final paper.

Master Degree Programs - School of Arts, Media & Communication

- Communication, MA (p. 174)
- Studio Art, MFA (p. 179)

Communication, MA

Program Description
The Master’s degree in Communication at Texas A&M University-Corpus Christi is designed for individuals who seek career advancement in communication positions, or who aspire to enroll in a doctoral program. Students in the Master’s in Communication program can specialize in Organizational Leadership, Strategic Communication, or Interpersonal Communication. All three tracks consist of courses designed to enhance students’ knowledge of communication principles, theories, and research in the track topic area and develop proficiency as writers, researchers, and critical decision makers. The program is designed to provide students with a quality experience that will help them grow as individuals, scholars, professionals, and citizens.

Student Learning Outcomes
Graduates from this program will be able to:

- Apply knowledge and understanding of the history, underlying concepts, principles, and theories in the field of communication;
- Demonstrate proficiency in advanced writing, presentation speaking, and critical thinking at the Master’s level;
- Show proficiency in scholarly methods of inquiry; and
For Additional Information
For more information on the Communication Graduate Program contact:
Website: http://cla.tamucc.edu//communication/graduate/welcome.html
Campus Address: Bay Hall 330
phone 361-825-2316
Mailing Address: Department of Communication & Media
College of Liberal Arts
Texas A&M University-Corpus Christi
6300 Ocean Drive, Bay Hall 330, Unit 5722
Corpus Christi, TX 78412-5722

Admission Requirements
In addition to the university admission requirements outlined for all graduate programs, the MA in Communication program requires:

• A bachelor's degree in Communication or related field.
• A grade point average (GPA) of no less than 3.0 on a 4-point scale.
• Transcripts of all undergraduate and graduate work undertaken at any regionally accredited colleges or universities.
• Two letters of evaluation from individuals such as professors and employers who can attest to the applicant's potential for success in a graduate program of study. Letters of evaluation should specifically address the applicant's potential for successful career and motivation for graduate study.
• An essay. Applicants must submit a 1-2 page (double spaced) essay describing educational and professional goals and the reasons for applying to the program.
• A writing sample. Samples may include research papers, term papers, and class essays.
• A comprehensive resume with current email address, telephone numbers, and mailing address.
• International students must have their credentials evaluated by the Office of Recruitment and Admissions for their equivalent value according to standard university procedure and meet other admissions requirements specified in the graduate catalog.

Application Checklist
• Texas Common Application for Graduate Admission to the Office of Recruitment and Admissions with appropriate fee.
• Official transcripts documenting all undergraduate and graduate coursework taken at any regionally-accredited college or university attended.
• Bachelor's degree in Communication or related field.

For more information contact:
Office of Recruitment and Admissions
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5774
Corpus Christi, TX 78412-5774

Department of Communication & Media
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5722
Corpus Christi, TX 78412
Attn: COMM Graduate Coordinator

For Deadlines for Applications
Applying for U.S. Applicants International Applicants
Fall Semester
Final August 13 May 1
Spring Semester
Final January 1 November 1
Summer Semester
Final May 15 February 1

Admission
Upon receipt of all admission materials, the Communication Graduate Admissions Committee will review the admissions materials. The committee may choose to admit, conditionally admit, or deny admission, based on evaluation of the admission materials (see description below). For full consideration of admission, assistantships, and scholarships, a completed admissions packet should be received by the priority deadline for the semester the student plans to enroll. The Communication Graduate Admissions Committee will continue to review applications until the final deadline or until all spaces are filled.

Applicants must have a Bachelor's degree in Communication or a related field (e.g. Psychology, Political Science, Sociology, Journalism, English, History, Public Relations) from a regionally accredited university or, if an international student, have the equivalent of a U.S. accredited degree as determined by the Dean of Graduate Studies. Applicants must possess an overall grade point average (GPA) of no less than 3.0 on a 4-point scale.

Conditional Admission
Applicants who have received a Bachelor's degree from a regionally-accredited university or, if an international student, the equivalent of a U.S. accredited degree, but who do not meet the admission requirements noted above may be conditionally admitted into the program. The Communication Graduate Admissions Committee will make the decision as to a student's conditional status. Students admitted conditionally must have a 3.0 GPA in their first 9 hours of graduate coursework.
approved by the Communication Graduate Advisor in order to continue in the program. The Communication Graduate Admissions Committee may also require the student to take relevant undergraduate leveling courses, particularly if the applicant's degree is from an unrelated field.

## Program Requirements

Admitted students will choose one of three degree tracks for the MA program in Communication: Organizational Leadership, Strategic Communication, or Interpersonal Communication. The tracks share core coursework designed to enhance student knowledge of communication principles and theories and develop their proficiency as writers and researchers. Each track is a minimum of 36 hours and includes both required and elective courses. With prior approval from the Communication Graduate Advisor, up to 6 hours of non-communication graduate level coursework can count as part of this 36-hour requirement. Each track is described in greater detail below.

### Organizational Leadership Track

The Organizational Leadership track focuses on principles, theories, and research of organizational communication and leadership. It is appropriate for individuals who are interested in working in leadership or management positions within a variety of organizations or who want to pursue a Ph.D. in organizational communication or a related area.

Students in the Organizational Leadership track must complete the four required core courses described above, two required Organizational Leadership track courses, four to six elective courses, and either the comprehensive exams or thesis exit requirement.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 5301</td>
<td>Introduction to Communication Scholarship</td>
<td>3</td>
</tr>
<tr>
<td>COMM 5302</td>
<td>Seminar in Communication Theory</td>
<td>3</td>
</tr>
<tr>
<td>COMM 5303</td>
<td>Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>COMM 5304</td>
<td>Cultural Studies</td>
<td>3</td>
</tr>
<tr>
<td>Required Track Courses</td>
<td>Select at least two of the following:</td>
<td>6</td>
</tr>
<tr>
<td>COMM 5306</td>
<td>Instructing and Consulting</td>
<td></td>
</tr>
<tr>
<td>COMM 5307</td>
<td>Communication and Organizations</td>
<td></td>
</tr>
<tr>
<td>COMM 5308</td>
<td>Communicating Leadership</td>
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</tr>
<tr>
<td>COMM 5314</td>
<td>Small Group Decision Making</td>
<td></td>
</tr>
<tr>
<td>COMM 5330</td>
<td>International Leadership</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>Select 12-18 hours of electives from the following:</td>
<td>12-18</td>
</tr>
<tr>
<td>COMM 5309</td>
<td>Seminar in Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 5310</td>
<td>Seminar in Intercultural Communication</td>
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<td>COMM 5311</td>
<td>Seminar in Persuasion Theory</td>
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<tr>
<td>COMM 5312</td>
<td>Seminar in Gender Communication</td>
<td></td>
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<tr>
<td>COMM 5331</td>
<td>Seminar in Nonverbal Communication</td>
<td></td>
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<tr>
<td>COMM 5335</td>
<td>Advanced Crisis Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 5340</td>
<td>Public Relations Theory</td>
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<tr>
<td>COMM 5346</td>
<td>Seminar in New Media</td>
<td></td>
</tr>
<tr>
<td>COMM 5390</td>
<td>Special Topics in Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 5396</td>
<td>Individual Study</td>
<td></td>
</tr>
<tr>
<td>COMM 5399</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>Exit Requirement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Strategic Communication Track

The Strategic Communication track focuses on principles, theories, and research of goal-oriented communication, particularly as it relates to communicating with the public. It is appropriate for individuals who are interested in working in public relations or marketing positions within a variety of organizations or who want to pursue a Ph.D. in public relations, persuasion, or a related area.

Students in the Strategic Communication track must complete the four required core courses described above, two required Strategic Communication track courses, four to six elective courses, and either the comprehensive exams or thesis exit requirement.

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<tr>
<td>COMM 5302</td>
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<td>COMM 5303</td>
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<td>Select at least two of the following:</td>
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<td>Seminar in Persuasion Theory</td>
<td></td>
</tr>
<tr>
<td>COMM 5335</td>
<td>Advanced Crisis Communication</td>
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</tbody>
</table>

1. Students must complete 18 hours of electives (Comprehensive Exam Option) or 12 hours of electives (Thesis Option). Any of the remaining required course options not already taken or the courses listed may be taken for elective credit hours. Students are encouraged to take as many track courses as possible. With prior approval from the Communication Graduate Advisor, up to 6 hours of non-communication graduate level coursework can count as part of this 36-hour requirement.

2. All students are automatically assigned the comprehensive exam exit requirement. Students may apply to complete a thesis. Students allowed to complete a thesis must complete 6 credit hours towards the thesis (COMM 5395 Thesis (3,6 sch)) over a period of two semesters. (See Exit Requirement section below.)
Students must complete 18 hours of electives (Comprehensive Exam Option) or 12 hours of electives (Thesis Option). Any of the remaining required course options not already taken or the courses listed may be taken for elective credit hours. Students are encouraged to take as many track courses as possible. With prior approval from the Communication Graduate Advisor, up to 6 hours of non-communication graduate level coursework can count as part of this 36-hour requirement.

All students are automatically assigned the comprehensive exam exit requirement. Students may apply to complete a thesis. Students allowed to complete a thesis must complete 6 credit hours towards the thesis (COMM 5395 Thesis (3,6 sch)) over a period of two semesters. (See Exit Requirement section below.)

### Interpersonal Communication Track

The Interpersonal Communication track provides courses that focus on principles, theories, and research surrounding communication that functions to initiate, maintain, deepen, and sometimes terminate relationships. The track is especially geared toward individuals who wish to work in positions or professions that emphasize interaction with others; it is also appropriate for students who wish to pursue doctoral study in interpersonal communication or related areas.

Students in the Interpersonal Communication track must complete the four required core courses described above, two required Interpersonal Communication track courses, four to six elective courses, and either the comprehensive exams or thesis exit requirement.

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</tr>
<tr>
<td>COMM 5304</td>
<td>Cultural Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Required Track Courses

Select at least two of the following:

- COMM 5309 Seminar in Interpersonal Communication
- COMM 5310 Seminar in Intercultural Communication
- COMM 5312 Seminar in Gender Communication
- COMM 5315 Family Communication
- COMM 5331 Seminar in Nonverbal Communication

#### Electives

Select 12-18 hours of electives from the following:

- COMM 5306 Instructing and Consulting
- COMM 5307 Communication and Organizations
- COMM 5308 Communicating Leadership
- COMM 5311 Seminar in Persuasion Theory
- COMM 5314 Small Group Decision Making
- COMM 5330 International Leadership
- COMM 5390 Special Topics in Communication
- COMM 5396 Individual Study
- COMM 5399 Internship

#### Exit Requirements

Students must complete 36 graduate hours in Communication with a cumulative 3.0 GPA or higher. All students admitted to the program will automatically be registered for the Comprehensive Exam exit requirement.

1. **Comprehensive Exam.** Students will take 12 hours of core coursework, 6 hours of required track coursework, and 18 hours of pre-approved electives. Students will also successfully complete examinations that cut across completed courses allowing students to demonstrate their abilities to analyze and synthesize material. The exams will be given during fall and spring semesters. Students should arrange to take the exams as close to the semester of course completion as possible. Exams are graded as “pass” or “fail”. If the student fails the examinations, the student will need to attempt the exams in a subsequent semester. The student must achieve a passing grade on all exam questions in order to graduate.

2. **Thesis.** Students may apply to complete a thesis instead of comprehensive exams. This is an appropriate option for individuals who are interested in pursuing a Ph.D. or who want to work in an area that involves research. To apply to complete the thesis, students must develop a thesis pre-proposal that the faculty will evaluate. Students who are approved to complete the thesis will take 12 hours of core coursework, 6 hours of required track coursework, 12 hours of pre-approved electives, and at least 6 hours of thesis work culminating in the thesis document. Thesis students will also defend a thesis in an oral examination to the appropriate graduate faculty. A majority of the faculty on the thesis committee must grade the thesis and defense as “credit” for it to be accepted to meet graduation requirements. If the student does not receive a “credit” score, the student has one year from the time of the first defense to complete the thesis satisfactorily and fulfill this requirement. Students must use the required College of Graduate Studies forms and meet the deadlines for thesis committee formation and scheduling of the thesis defense. The thesis must meet the College of Graduate Studies thesis formatting requirements in addition to those of their discipline. For CGS deadlines and forms, refer to the CGS website and/or CGS Masters Handbook.

### Graduate Degree Advising

Upon admission into the program, the student will be advised by a communication graduate faculty member. After the end of the second semester or 18 hours of completed coursework, a Faculty Advisor will
help the student develop an initial degree plan. The degree plan outlines the prescribed graduate coursework and other requirement needed to complete the MA in Communication degree

The student is expected to meet with their advisor prior to registering for classes. The Faculty Advisor will work closely with the student to ensure that each student pursues the most advantageous course of study for his/her future goals.

**Transfer of Credit**

In addition to the University's general policy on transfer of credit, the following regulations will apply to the MA in Communication program:

Up to 9 semester hours may be transferred from a recognized institution of higher education if appropriate to the degree. However, only 6 hours of non-communication coursework will be accepted as part of this 9 semester hours. No course with a grade less than a "B," and no course that has counted toward the earning of another graduate degree, will be accepted as transfer credit. Credit that is more than seven years old at the time of graduation will not be counted toward the MA degree. Acceptance of transfer credit will be determined by the Communication Graduate Advisor.

**Courses**

**COMM 5301 Introduction to Communication Scholarship**
3 Semester Credit Hours (3 Lecture Hours)

This is a practical introduction to scholarship in the Communication discipline with emphasis in: reading and understanding academic source material; finding source material in scholarly literatures; writing academic research papers; editing and revising your own work; and presenting scholarship. Completing this course will prepare you to think, write, and present ideas as an advanced scholar in the Communication discipline.

**COMM 5302 Seminar in Communication Theory**
3 Semester Credit Hours (3 Lecture Hours)

This course represents an advanced treatment of theory in the Communication discipline. Theoretical traditions and theories discussed in this course are used by scholars to explain and/or interpret communication processes in such areas as interpersonal, intercultural, organizational, and media settings.

**COMM 5303 Research Methodology**
3 Semester Credit Hours (3 Lecture Hours)

This course is designed as an intellectual and practical introduction to communication research at the graduate level, including epistemological, intellectual, and practical issues associated with qualitative, quantitative, and critical methods research.

**COMM 5304 Cultural Studies**
3 Semester Credit Hours (3 Lecture Hours)

This course examines theoretical approaches to cultural studies; focus on interdisciplinary research of media audiences and covering a range of methods and theoretical frameworks; concentration varies.

**COMM 5305 Basic Communication in Higher Education**
3 Semester Credit Hours (3 Lecture Hours)

BASIC COMMUNICATION IN HIGHER ED This course provides individual development in philosophies and practices unique to teaching basic oral communication. It is designed primarily for students who wish to teach public speaking in higher education. This course is required for all students serving as Graduate Teaching Assistands in COMM 1315.

**COMM 5306 Instructing and Consulting**
3 Semester Credit Hours (3 Lecture Hours)

This course will draw upon academic research in instructional communication to provide a foundation for aligning the instructional skills and knowledge necessary for achieving organizational strategic goals and objectives.

**COMM 5307 Communication and Organizations**
3 Semester Credit Hours (3 Lecture Hours)

This course surveys traditional and contemporary readings in organizational communication. Readings cover such topics as the relationship of communication and organizational structure, process, stakeholders, leadership, decision making, culture, and identity.

**COMM 5308 Communicating Leadership**
3 Semester Credit Hours (3 Lecture Hours)

This course focuses on the process of influence that takes place through communication to achieve goals or to produce change from a collective of people. This course will include instruction on the various approaches to leadership, process of leadership, and the role that leadership plays in a variety of contexts.

**COMM 5309 Seminar in Interpersonal Communication**
3 Semester Credit Hours (3 Lecture Hours)

This seminar focuses on terminology, key theories, and functions of interpersonal communication as it pertains to the formation and maintenance of relationships.

**COMM 5310 Seminar in Intercultural Communication**
3 Semester Credit Hours (3 Lecture Hours)

This course explores the relationship between communication and culture through scholarly readings, discussions, and critiques in three subfields of Intercultural Communication: cultural communication, cross-cultural communication, and intercultural communication.

**COMM 5311 Seminar in Persuasion Theory**
3 Semester Credit Hours

This course investigates traditional and contemporary theories of persuasion and is an in-depth study of the major concepts of persuasive communication.

**COMM 5312 Seminar in Gender Communication**
3 Semester Credit Hours (3 Lecture Hours)

This seminar focuses on terminology, key theories, and cutting-edge research within the study of gender communication.

**COMM 5314 Small Group Decision Making**
3 Semester Credit Hours (3 Lecture Hours)

This course will focus on the theory and practice of small group decision making, by considering both effective work groups and small groups that have made faulty decisions.

**COMM 5315 Family Communication**
3 Semester Credit Hours (3 Lecture Hours)

Overview of theory and research on communication in the family. Content focuses on definitions, frameworks, perspectives, theories, and outcomes tied to the study of communication processes within the family.

**COMM 5330 International Leadership**
3 Semester Credit Hours (3 Lecture Hours)

Introduces graduate and advanced students to the study of leadership in international and intercultural settings with the emphasis on the context of mediated communication.

**COMM 5331 Seminar in Nonverbal Communication**
3 Semester Credit Hours (3 Lecture Hours)

This seminar will educate students about the history, key theories, types and functions of nonverbal communication, or message with words.
COMM 5335  Advanced Crisis Communication
3 Semester Credit Hours (3 Lecture Hours)
Examines crisis communication from the perspective of academic researchers and practitioners. Includes the analysis of crisis communication research, reviews the elements of an effective crisis communication plan, and centers on case study analysis of best and worst practices in crisis planning, prevention, and response.

COMM 5340  Public Relations Theory
3 Semester Credit Hours (3 Lecture Hours)
A discussion of theories of excellence in public relations and crisis communication through the exploration of models, roles, communication, media, ethics, and culture to serve as a foundation for professional practice.

COMM 5341  Digital Filmmaking
3 Semester Credit Hours (3 Lecture Hours)
DIGITAL FILMMAKING This course concentrates on the professional skills needed by a well-rounded independent filmmaker: writing, visualizing the script, producing, directing the actors, digital cinematography, sound, editing and postproduction.

COMM 5343  Seminar in Television Studies
3 Semester Credit Hours (3 Lecture Hours)
SEMINAR IN TELEVISION STUDIES This course is a critical study of television programming content, production practices, and audiences. Includes consideration of industrial, political, aesthetic, and cultural analyses of television.

COMM 5344  Seminar in Film Studies
3 Semester Credit Hours (3 Lecture Hours)
SEMINAR IN FILM STUDIES Investigation of selected topics in film through viewing, reading, and independent research. May be repeated when topics vary.

COMM 5346  Seminar in New Media
3 Semester Credit Hours (3 Lecture Hours)
Explores contemporary instances of new and emerging media platforms, especially as facilitated through digital media technologies, as they continue to disseminate more widely as portals of communication. Students will engage with specific issues in new media through the lenses of various cultural theories in order to gain a greater understanding of the scope of new media, its culture, and the relationships that exist between machines and humans, as well as those between society and technology.

COMM 5390  Special Topics in Communication
3 Semester Credit Hours (3 Lecture Hours)
This course is an intensive exploration of selected topics in communication study. May be repeated when topics vary.

COMM 5395  Thesis
3,6 Semester Credit Hours (3,6 Lecture Hours)
The thesis is independent research under the direction of a student’s graduate committee, and to result in a completed thesis project, it should be taken in two separate semesters for a total of 6 credit hours dependent upon thesis proposal.

COMM 5396  Individual Study
1-3 Semester Credit Hours
This Individual Study course is designed to provide inquiry and research opportunities in an area of special interest otherwise not available in course offerings. Two individual study courses may be applied toward the degree with the approval of the student’s Faculty Mentor.

COMM 5399  Internship
3 Semester Credit Hours (2.5 Lecture Hours)
Practical experience in the communication field through placement in an communication or media internship position. Students must have completed at least 6 hours of graduate coursework in communication and have a minimum GPA of 3.5 to apply for the internship course.

Studio Art, MFA
Program Description
The Master of Fine Arts degree is a comprehensive three-year program designed to guide Candidates toward expertise in studio art and design practices, aesthetics, and scholarly inquiry while expanding proficiency in art history, criticism, and theory. In addition, Candidates have opportunities to acquire experience in classroom instruction and pedagogy, professional development, and gallery practices.

The MFA is a distinguished terminal degree that prepares Candidates to excel as professional practicing artists in a global context and in careers in higher education.

Student Learning Outcomes
Students will:

- Demonstrate depth and breadth of knowledge of the key critical and theoretical frameworks that pertain to their discipline(s) and area(s) of concentration and research;
- Engage with and analyze their own work within these frameworks;
- Demonstrate knowledge of theory, methodologies, and discursive vocabularies in a disciplinary or interdisciplinary context relative to their proposed thesis exhibition or project;
- Apply their knowledge in the discipline and concentration(s) of choice, media, and techniques to create a thesis project or exhibition that explores the contextual framework as related to their research and creative scholarship;
- Articulate ways in which the combination of their scholarly inquiry, practice, and thesis project or exhibition and written thesis are a part of and contribute to the fields of contemporary Studio Art and Design during applicable critiques, public presentation, and oral defense.

Course Prerequisites
Candidates must have completed at least 6 semester hours of upper-division undergraduate course work in a field or the specific course prerequisite to enroll in 5000-level courses in that field. Additional undergraduate prerequisite course work may be required by the specific graduate program.

Transfer of Credit
Subject to the recommendation of the graduate faculty and a portfolio review, Candidates may have up to 15 semester hours (not including exhibition) of graduate credit applied to the Master of Fine Arts program. The credits must have been earned as degree-eligible post-baccalaureate work. Credit that is more than ten years old will not be counted toward the MFA degree.

For Additional Information
Website:
http://cla.tamucc.edu/art/Graduate.html

**Campus Address:**
Center for the Arts (CA), Room 105
Phone: (361) 825-2317

**Mailing Address:**
Department of Art, Unit 5721, College of Liberal Arts
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5721

**Admission Requirements**
In addition to meeting university criteria for admission to graduate studies, an applicant must meet the following requirements for admission to the MFA program:

1. Earned Bachelor of Fine Arts degree, earned bachelor’s degree relative to Graphic Design, or earned graduate degree in art from an institution accredited by one of the six regional accrediting associations.
2. Earned at least 15 hours of upper-level Studio Art or Graphic Design course work.
3. Submit a completed Graduate School Admission application via the College of Graduate Studies website.
4. Submit a 300-500 word typed essay written by the applicant, explaining their interest and objectives for graduate studies via the College of Graduate Studies website.
5. Provide three letters of recommendation from faculty or persons familiar with the applicant’s interest and ability in art via the College of Graduate Studies website.
6. Provide (20) examples of applicant’s artwork via current submission requirements and/or via email to the Department of Art & Design Graduate Coordinator including title, media, dimensions, and year for each artwork (jpg image files, 1920 pixels on the longest side, at least 150 dpi).

A Candidate wishing to enroll in graduate courses as a non-degree seeking student must first submit a letter requesting admission from the Department of Art & Design faculty, a portfolio representing their art work and a 300-500 word essay. The faculty of the Department of Art & Design will review all applications for admission and will consider the applicant’s transcripts, essay, letters of recommendation, and portfolio. College graduates who do not meet the above admission requirements may petition to enter the MFA program by conditional admission. The faculty reserves the right to interview Candidates seeking conditional admission to the program. Candidates who have been conditionally admitted will have their first 9 semester hours of course work critiqued by the graduate faculty to determine whether they qualify to continue in the program.

The deadline to apply for the MFA in Studio Art is listed on the Department of Art & Design Website.

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**Program Requirements**

**Course Requirements**
Candidates must complete 60 semester hours in art with a minimum 3.0 GPA. No more than two grades of C earned at this university will be accepted as credit for this degree.

**MFA Studio Art Program Requirements with a concentration in Ceramics, Painting and Drawing, Photography, Printmaking, Sculpture, or Interdisciplinary Art**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio Art</td>
<td>36</td>
</tr>
<tr>
<td>Art History/Theory &amp; Methods/Research Topics</td>
<td>12</td>
</tr>
<tr>
<td>MFA Seminar</td>
<td>6</td>
</tr>
<tr>
<td>MFA Project and Thesis</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td>60</td>
</tr>
</tbody>
</table>

The distribution of credit hour requirements is as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 5392</td>
<td>Art Theory and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 5393</td>
<td>Seminar in Art History and Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td>ARS 5393</td>
<td>Seminar in Art History and Aesthetics (research topic)</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 5394</td>
<td>Directed Research (research topic)</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 5191</td>
<td>Graduate Professional Practices Seminar (repeat 3 times)</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 5192</td>
<td>Graduate Critique Seminar (repeat 3 times)</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 5398</td>
<td>MFA Project</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 5395</td>
<td>MFA Thesis</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

1 Enrollment in Graphic Design is subject to the approval of the Graphic Design faculty. If deemed necessary, the faculty may require the Candidate complete up to 9 hours of leveling coursework as a prerequisite to enrollment.
Exit Requirements

In addition to meeting the university requirement of a 3.0 GPA or greater, candidates for the MFA in Studio Art must meet the following exit requirements according to concentration and emphasis of the candidate’s respective degree plan.

Upon approval of advancement toward an MFA Project and MFA Thesis via the Second-Year Review process, it is the MFA Candidate’s responsibility to adhere to forms and deadlines required by the College of Graduate Studies.

The MFA Project and MFA Thesis is graded on a credit/noncredit basis. Candidates who fail to complete the exit requirements during the semester with begin an “IP” (In Progress) until the Thesis and Project are completed.

After the exit requirements are submitted to the Candidate’s thesis committee for review, the Candidate will “pass,” or “fail.” The Thesis Committee will administer a comprehensive Oral Defense of the Candidate’s final MFA Thesis and MFA Project before the degree can be conferred. A failed Defense may be repeated once. A second failure will result in dismissal from the program.

Exit Requirements for the MFA in Studio Art Program with a concentration in Ceramics, Painting and Drawing, Photography, Printmaking, Sculpture, or Interdisciplinary Art program

MFA Project

The MFA Project (ARTS 5398 MFA Project (3 sch)) concentrates on the creation and execution of creative scholarship as related to the Candidate’s discipline, concentration area(s), and research. The creation and execution of those criteria require the following:

- Planning meeting with Director of University Galleries and galleries Manager one semester prior to Exhibition
- Completion of MFA Exhibition Proposal the semester prior to Exhibition
- All communication, advertisement, and marketing leading up to the Exhibition in cooperation with CLA Events Specialist and TAMU-CC Marketing and Communications Department
- Installation of artwork
- Posted artist statement and labels
- Oral Defense scheduled within the exhibition dates structured with a minimum of 3 rounds of questions posed by members of the Thesis Committee
- Deinstallation of artwork
- Cleanup/repairs necessary to gallery/exhibition space

MFA Thesis

The MFA Thesis (ARTS 5395 MFA Thesis (3 sch)) concentrates on research and writing in creative scholarship as related to the Candidate's discipline, concentration area(s), and research. The Thesis must include the following:

- 5,000-7,000-word written Thesis (exclusive of apparatus)
- Discussion of subject matter
- Discussion of techniques used
- Historical, theoretical, philosophical, and contemporary context for the project
- Bibliography formatted according to The Chicago Manual of Style

MFA in Studio Art with a concentration in Graphic Design with separate tracks in Professional Practices or Academic Appointment

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Design</td>
<td>36</td>
</tr>
<tr>
<td>Open Electives</td>
<td>6</td>
</tr>
<tr>
<td>Art History/Theory &amp; Methods</td>
<td>6</td>
</tr>
<tr>
<td>MFA Project and Thesis</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

The distribution of requirements is seen in the following outline:

**Code** | **Title** | **Hours**
---|---|---
**Graphic Design**
Select 30 semester hours of Graphic Design in area of concentration | 30 |
ARTS 5314 MFA Studio in Art: Graphic Design |
Select 6 semester hours of Graduate Teaching Assistant Practicum in area of concentration | 6 |
ARTS 5397 Graduate Teaching Assistant Practicum |
**Open Electives**
Select 6 semester hours of graduate electives | 6 |
**Art History/Theory & Methods**
ARTS 5392 Art Theory and Methods | 3 |
ARTS 5393 Seminar in Art History and Aesthetics | 3 |
**MFA Project and Thesis**
ARTS 5398 MFA Project | 6 |
ARTS 5395 MFA Thesis | 6 |
**Total Hours** | **60** |

1 The 6 semester hours can both be in Art History and Criticism courses with varying topics.

Special Requirements
First-Year Review and Second-Year Review

The Department of Art & Design faculty will review each candidate’s work following completion of 20 semester hours or the first year of graduate study, and following completion of 40 semester hours or the second year of graduate study before permitting advancement toward completion of an MFA Project and MFA Thesis.
Exit Requirements for the MFA in Studio Art with a concentration in Graphic Design with separate tracks in Professional Practices or Academic Appointment

The MFA Project and MFA Thesis in Graphic Design is completed over the course of two semesters. Typically, a Candidate will enroll in three semester hours of MFA Project (ARTS 5398 MFA Project (3 sch)) and three semester hours of MFA Thesis (ARTS 5395 MFA Thesis (3 sch)) during the fall semester. The Candidate would then complete their exit requirements during the spring semester by enrolling in three semester hours of MFA Project (ARTS 5398 MFA Project (3 sch)) and three semester hours of MFA Thesis (ARTS 5395 MFA Thesis (3 sch)).

MFA in Studio Art with a concentration in Graphic Design track in Professional Practices

MFA Project

A multi-media campaign project (ARTS 5398 MFA Project (3 sch)) for their client of choice will be presented in a professional format as either a bound printed deck or digital website, to include:

- Campaign Overview
- Client Research
- Creative Strategy
- Implementation Strategy
- Creative Development
- Asset Development
- Future Exploration
- Conclusion
- Additional Considerations Unique to Project
- Public Presentation and Oral Defense of Final Project

MFA Thesis

A 5,000-7,000-word written Thesis (ARTS 5395 MFA Thesis (3 sch)) will serve as the foundational context for the Candidate's multi-media campaign, to be developed for their client of choice. It will discuss applicable research that supports their proposed design solutions, consider the client's market and category competitive analyses, review target audience behaviors and demographics, and defend technical and conceptual methodologies of the proposed campaign content.

MFA in Studio Art with a concentration in Graphic Design track in Academic Appointment

MFA Project

The Candidate's MFA Project (ARTS 5398 MFA Project (3 sch)) will demonstrate advanced critical thinking in analyzing industry history, theory, criticism, and practices to support their research. The Candidate will present and defend their final Project during a scheduled public Defense. Additionally, the Candidate will adapt their self-promotional materials for application to positions in Education to include a Teaching Philosophy, Statement of Research, and Student Work samples under the department's Portfolio and Professional Practices Course.

MFA Thesis

A written Thesis (ARTS 5395 MFA Thesis (3 sch)) suitable for publication as outlined by the Candidate's Thesis Committee.

Courses

ARTS 5191 Graduate Professional Practices Seminar
1 Semester Credit Hour
A graduate seminar devoted to professional practices, in a contemporary context, for artistic production and academic pedagogy in Studio Art. Professional practices covered may include but are not limited to development of artist statements, teaching philosophy statements, curriculum vitae, websites, and application dossiers for galleries, grants, and residencies along with the investigation into non-profit organizations, the role of the arts in civic economic development, and curatorial practices for a range of arts institutions from artist-run to museums. This course receives one hour of credit per semester. The course may be repeated three times for credit.

ARTS 5192 Graduate Critique Seminar
1 Semester Credit Hour
An interdisciplinary graduate seminar in Studio Art devoted to the critique of artistic production in a contemporary cultural context. This course consists of structured peer-centered critiques. Students will become adept in both the language of critique and critique structures. Works are examined in an interdisciplinary context allowing students to comprehend their work through multiple perspectives while also providing opportunities for cross-disciplinary collaboration. This course receives one hour of credit per semester. The course may be repeated three times for credit.

ARTS 5301 Workshop in Art
1-6 Semester Credit Hours (1-6 Lecture Hours)
Current trends and approaches in art with emphasis on contemporary processes and techniques in studio work. May be repeated when topics vary. Offered on sufficient demand.

Co-requisite: SMTE 0097.

ARTS 5312 MFA Studio in Art: Ceramics
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in ceramics.

Co-requisite: SMTE 0097.

ARTS 5313 MFA Studio in Art: Drawing
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in drawing.

Co-requisite: SMTE 0097.

ARTS 5314 MFA Studio in Art: Graphic Design
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in graphic design.

ARTS 5315 MFA Studio in Art: Painting
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in painting.

Co-requisite: SMTE 0097.

ARTS 5316 MFA Studio in Art: Photography
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in photography.

Co-requisite: SMTE 0097.
ARTS 5317  MFA Studio in Art: Printmaking
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in printmaking.
Co-requisite: SMTE 0097.

ARTS 5318  MFA Studio in Art: Sculpture
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in sculpture.
Co-requisite: SMTE 0097.

ARTS 5320  Graduate Critique Seminar
3 Semester Credit Hours
An interdisciplinary fine art graduate seminar devoted to the analysis of artistic production in a contemporary cultural context, consisting of peer-centered critiques. Students will become adept in both the language and structures of critique. In addition to graduate level artistic production, students will conduct research and present scholarly articles relevant to their work for class discussion. Works are examined in an interdisciplinary context allowing students to comprehend their studio practice through multiple perspectives and opportunities for cross-disciplinary collaboration.

ARTS 5391  MFA Seminar in Art
3 Semester Credit Hours (3 Lecture Hours)
Various thematic discussions and projects pertaining to studio work under the guidance of a studio faculty member, and possible guest lecturers and artists.

ARTS 5392  Art Theory and Methods
3 Semester Credit Hours (3 Lecture Hours)
The course will cover key developments in the evolution of art historiography, aesthetic theory and methods. Students will be engaged in discussions related to the practice of art history from an historiographical perspective and will conduct verbal and written analyses in connection with primary and secondary sources derived from canonical scholarship. The course will include discussion of theoretical and methodological texts from antiquity and the Middle Ages, to the early Modern period, the Enlightenment, the nineteenth and twentieth centuries, to postmodernity and the contemporary era. These analyses will consider notions of aesthetics, historiography, deconstruction, authorship, various modes of identity formation, and globalization. Students will become proficient in a wide range of aesthetic, historiographical, theoretical, and methodological practices related to fine arts disciplines.

ARTS 5393  Seminar in Art History and Aesthetics
3 Semester Credit Hours (3 Lecture Hours)
Study in specific areas of art history and aesthetics. May be repeated when topics vary.

ARTS 5394  Directed Research
3 Semester Credit Hours
This course entails a faculty-led research project as related to selected Studio Art and Design topics, focused on reading and writing. Students will conduct research utilizing relevant archival material and databases along with direct contact with contemporary artists, art historians, critics, curators, and other cultural professionals as appropriate. Students can enroll in this course in any semester within the MFA program with the approval of the graduate student’s thesis committee. The course is offered during any semester upon request by the student and with the consent of the instructor.

ARTS 5395  MFA Thesis
3 Semester Credit Hours
This course concentrates on research and writing in creative scholarship as related to the Candidate's discipline, concentration area(s), and research. The MFA Candidate is responsible for a written Thesis that provides textual support for their Exhibition or Project, executed under the MFA Project course. Candidates can enroll with the approval of the Thesis Committee. A specific syllabus for the Candidate's chosen discipline and concentration(s) will be provided to them under this course. This syllabus is a binding contract between Professor and the MFA Candidate. It is the Candidate's responsibility to thoroughly read and understand all rules, expectations and guidelines.
Co-requisite: SMTE 0097.

ARTS 5396  Individual Study
1-3 Semester Credit Hours (1-3 Lecture Hours)
A carefully planned special study on an academic topic not offered as part of the regular graduate curriculum. Directed Individual Study (DIS) is a tutorial, directed and evaluated by a member of the graduate art faculty. Enrollment is restricted to graduate students who have demonstrated both academic ability and the capacity for independent work. Complete applications must be filed and approved by a committee of the graduate art faculty and the Dean of Liberal Arts in advance of registration.
Co-requisite: SMTE 0097.

ARTS 5397  Graduate Teaching Assistant Practicum
3 Semester Credit Hours
Practical training in instruction for MFA graduate students under the declared Graphic Design discipline. This course is designed for graduate students to assist an assigned program faculty mentor and their undergraduate students. As a practicum course, the graduate student will spend the majority of their time in the classroom when class is in session. The graduate student, in the role of lead instructor, is expected to deliver course content and lectures designed by the program faculty mentor and to assist undergraduate course students in obtaining course learning objectives.

ARTS 5398  MFA Project
3 Semester Credit Hours
This course concentrates on creation and execution in creative scholarship as related to the MFA Candidate's discipline, concentration area(s), and research. Candidates can enroll with approval of their Thesis Committee. A specific syllabus for the Candidate's chosen discipline and concentration(s) will be provided to them under this course.
Co-requisite: SMTE 0097.

ARTS 5399  Gallery and Museum Practices
3 Semester Credit Hours (3 Lecture Hours)
Study of the functions of galleries and museums: curating, preparation, grantsmanship, crating, documentation, and publicity. Visits to galleries and museums will be made around South Texas as well as Houston.
Co-requisite: SMTE 0097.

Non-Degree - School of Arts, Media & Communication

• Music (p. 184)
Music

Music Coursework

Graduate Courses
These courses are designed to support graduate programs in other disciplines.

The complete inventory of private studio courses available at the graduate level is far too extensive for inclusion in this document. Anyone desiring information beyond the following outline should contact the Music Department Chair for a complete listing of the individual courses.

Essentially, two studio options are available at the graduate level in most areas of performance.

College of Nursing and Health Sciences

Mission
The College of Nursing and Health Sciences, positively impacts the health of the global population through the education of health care leaders and providers of tomorrow, with innovative educational programs in the nursing and health professions. The College identifies, attracts, and graduates students of high potential, especially from groups who have been historically under-represented in the organization, and provision of health care. This work is enhanced through faculty contributions to community service, leadership, practice, and research. These activities are fostered in a collaborative, interprofessional, and multicultural learning environment, promoting a sense of community and caring.

Goals
The goals of the College of Nursing and Health Sciences assist the College in implementing the University and College missions.

1. To develop within the student the knowledge and skills necessary for beginning professional and advanced nursing practice, cultivating basic and specialized abilities needed to successfully pursue a career, and
2. To promote the concept of nursing as caring and facilitate attainment of a care delivery system sensitive to multicultural communities and their health values, and
3. To offer individuals the opportunity to increase the breadth and depth of the theoretical base for nursing practice, enhance and expand competence, prepare for role specialization and contribute to the discovery of new nursing knowledge, and
4. To provide an educational environment of respect within which students may evolve as broadly educated, technology competent, responsible and accountable professionals dedicated to the principles of lifelong learning, and
5. To build a foundation for life-long learning & systematic practice, and
6. To serve the community as nursing experts, leaders and consultants in professional organizations, health promoters, providers of health care policy information and advocates of ethical distribution and usage of resources.

Graduate Program
The College of Nursing and Health Sciences offers course work leading to the Master of Science in Nursing degree, and the Doctor of Nursing Practice degree. Additionally, the college offers graduate courses in Health Care Administration. All of the graduate nursing courses and several of the health care administration courses, are delivered through online technology only. Contact the Graduate Nursing Department Chair to confirm course delivery format.

Programs
• Certificate and Certification Programs (p. 184)
  • Family Nurse Practitioner, Post-Masters Certificate (p. 184)
  • Health Care Administration, Certificate (p. 185)
  • Leadership in Nursing Systems, Post-Masters Certificate (p. 185)
  • Nurse Educator, Post-Masters Certificate (p. 185)
  • Doctoral Degree Programs (p. 186)
  • Nursing, DNP (p. 186)
• Master Degree Programs (p. 188)
  • Family Nurse Practitioner, MSN (p. 188)
  • Leadership in Nursing Systems, MSN (p. 189)
  • Nurse Educator, MSN (p. 189)
  • Nursing, MSN (p. 189)
• Non-Degree (p. 193)
  • Leadership in Nursing Systems, Minor (p. 193)
  • Nurse Educator, Minor (p. 193)

Certificate and Certification Programs
• Family Nurse Practitioner, Post-Masters Certificate (p. 184)
• Health Care Administration, Certificate (p. 185)
• Leadership in Nursing Systems, Post-Masters Certificate (p. 185)
• Nurse Educator, Post-Masters Certificate (p. 185)

Family Nurse Practitioner, Post-Masters Certificate

Program Description
Registered nurses who earn a Post-Master's certification as a Family Nurse Practitioner will be able to

1. Expand their practice as Advanced Practice Registered Nurses in the care of family and individuals across the lifespan.
2. Demonstrate competency in the planning, delivery, and evaluation of primary care in a variety of healthcare settings.

Students who complete post-master's certification course work should meet requirements for national certification in the associated specialty area of practice.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Specialization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Music
Health Care Administration, Certificate

Program Description
Graduate courses in health care administration are offered in support of the graduate degrees in nursing, public administration, and business administration. For details concerning the degree programs, consult the appropriate sections of the catalog. A Certificate in Health Care Administration is available for those students who hold a master’s degree in another field and wish to complete a short course of study focused on health care administration.

The Health Care Administration (HCAD) certificate program meets the U.S Department of Education definition of a Gainful Employment program. The program prepares individuals to enter the U.S Department of Labor’s Standard Occupational Classification (SOC) code Medical and Health Services Management (SOC code 11-9111.00). An explanation of the Gainful Employment status is available on the College web site: http://conhs.tamucc.edu/licencencert.html.

Student Learning Outcomes
Students will:

• Demonstrate a thorough understanding of the theoretical and practical aspects of the health care delivery system from a historical, comparative, economic, cultural, and ethical perspective.
• Employ a variety of business and management skills and techniques including marketing, financial management, law, and information management to effectively and efficiently advance the goals of the organization.
• Demonstrate creativity in defining, negotiating and solving problems.
• Communicate and educate, using the most current information and communication technology.

For Additional Information
Website:
http://conhs.tamucc.edu/

Campus Address:
Island Hall, Room 322
phone 825-5893

Mailing Address:
Graduate Department
Students who complete post-master’s certification course work should meet requirements for national certification in the associated specialty area of practice.

**Doctoral Degree Programs**

- Nursing, DNP (p. 186)

**Nursing, DNP**

**Program Description**

The Texas A&M University-Corpus Christi Doctor of Nursing Practice Program is an online, part-time, post-master’s, clinical doctorate for registered nurses interested in expanding their skills as nurse leaders or nurse practitioners. This program prepares graduates to provide the most advanced level of nursing care for individuals, families, organizations and communities. This includes direct care of individual patients, management of care for individuals and populations, administration of nursing systems, development and implementation of health policy and teaching nurses in both basic and specialty programs.

Because courses are delivered 100 percent online, students can remain in the communities where they live and work while completing program requirements. Travel may be required for students to interact with state or national experts in their areas of study. The curriculum is consistent with program standards set forth in the *Essentials of Doctoral Education for Advanced Practice*. Students enrolled in the program will complete a scholarly project designed to improve patient or system outcomes.

**Student Learning Outcomes**

Students will:

1. Integrate nursing science knowledge from the biophysical, psychosocial, analytical, and organizational sciences and ethics as the basis for practice.
2. Provide culturally relevant health promotion and disease prevention initiatives based on epidemiological, bio-statistical, environmental, and other scientific evidence for diverse populations.
3. Demonstrate visionary organizational leadership by designing and implementing efficient effective practice and policy models.
4. Apply advanced levels of clinical scholarship, systems thinking and analytical methods in evidence-based management and practice.
5. Translate and disseminate knowledge to transform caring management and practice.
6. Leverage information systems and patient care technology for the improvement and transformation of health care.
7. Analyze, develop, and advocate for healthcare policies to improve healthcare systems across diverse constituencies.
8. Collaborate inter-professionally to improve patient and population outcomes through practice, education, and leadership.

**Graduation Requirements**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Work</strong></td>
<td></td>
</tr>
<tr>
<td>Core Courses</td>
<td>33</td>
</tr>
<tr>
<td>Advanced Specialty Courses</td>
<td>3</td>
</tr>
<tr>
<td>DNP Project Seminar (1 hr/each of last 4 semesters)</td>
<td>4</td>
</tr>
</tbody>
</table>

1000 hours of field experience
May be completed within the required courses

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DNP Project</strong></td>
<td></td>
</tr>
<tr>
<td>May be completed throughout the required courses</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours: 40

The Texas A&M University-Corpus Christi College of Graduate Studies Recency of Credit rule requires that all credit earned for a graduate degree must be completed within seven years of the first semester in which a student is enrolled in a graduate program. This requirement means that students are expected to complete their DNP program in seven years. In rare situations, an exception to this seven-year policy may be granted from the Dean for the College Graduate Studies when a student is unable to complete courses in this time period. The student must complete a request with an explanation as to why the exception should be made as soon as the student determines that courses will not be completed within this time frame. The request should be submitted to the Graduate Nursing Department Academic Advisor and the Associate Dean of Graduate Nursing Programs.

**Program Requirements for all DNP Graduate Students**

Students will be considered out of compliance if a designated immunization or other item required to be submitted to the CONHS Castle branch database manager or other agency is not updated by the designated deadline throughout their clinical courses. Additionally, there may be further requirements from a clinical facility that students will be required to meet. Any student who is out of compliance may be disenrolled from his/her classes.

The following program requirements apply to all nursing graduate students upon admission and throughout program of study. Students must:

1. Have completed a graduate nursing program from an NLNAC or CCNE accredited school of nursing.
2. Have completed within the past seven years, a graduate-level inferential statistics course with a grade of B or better. Students admitted with without having completed this requirement must complete it within the first academic year of the DNP program.
3. Hold current unencumbered licensure as a registered nurse with authorization to practice in Texas
4. Upon admission to the College, complete a criminal background check.
5. Complete a ten panel non-chain of custody urine drug screen.
6. Purchase professional liability coverage through the University. Fees for this coverage are included in the fees paid at the time of registration at the beginning of each academic year.
7. Meet Texas Department of State Health Services immunization requirements for students in health professions programs. Students must complete and present evidence that immunizations are complete and current prior to starting classes. Immunizations must remain current throughout the program. Students will not be allowed into courses or clinical laboratory agencies if evidence of compliance is missing. These requirements, as stated in the Texas Administrative Code, Title 25, Part 1, Chapter 97, Subchapter B, Rule 97.64 (https://texreg.sos.state.tx.us/public/readtac%24ext.TacPage/?)
university nor clinical agencies are held responsible for emergency/health insurance coverage is highly recommended as neither the requirements to gain access for clinical. choose to complete clinical experiences may have stricter requirements than the state minimum standards. Students will have to meet agency requirements to meet these admission requirements. See the BON website, (http://www.bon.texas.gov), for the statuses and rules regulating licensure.

For additional information, please see the Texas Administrative Code, Title 25, Part 1, Chapter 97, Subchapter B [https://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC/?tac_view=56&ti=25&pt=1&ch=97&sch=B&r=Y], which is accessible at http://www.sos.state.tx.us/tac/index.shtml (http://www.sos.state.tx.us/tac/index.shtml/). Please note that some agencies where you may choose to complete clinical experiences may have stricter requirements than the state minimum standards. Students will have to meet agency requirements to gain access for clinical.

Health insurance coverage is highly recommended as neither the university nor clinical agencies are held responsible for emergency/

**Progression, Retention, and Dismissal**

All students must meet the standards for minimal performance and progression established by Texas A&M University-Corpus Christi Office of Graduate Studies. See catalog section on Graduate Academic and Degree Requirements.

1. If a student earns a grade of C, D, F, or W the student:
   a. Must repeat a course in which a grade of C or lower or W (Withdrawal) was earned.
   b. May be placed on scholastic probation if the GPA falls below 3.0 because of the C, D, F, or W.
   c. Will be removed from scholastic probation in accordance with university policy. See Scholastic Probation and Enforced Withdrawal in this catalog.
   d. May not progress to courses for which that course is a prerequisite when a grade of C, D, F, W or I (Incomplete) was earned.

2. If the student earns a second C or below in the program, the student cannot progress further and is required to withdraw from the program even when the GPA does not fall below 3.0.

3. The student cannot progress to next course after withdrawing from two courses in the program unless approved by the APG Committee. A plan to complete the program must be submitted to the Committee before a progression decision can be made. Admission to courses that need to be completed will depend on space availability.

4. The student may be dismissed from the program without previous warning for unsafe and/or unprofessional behavior identified by College administrators and faculty. The conduct of nursing students should meet ethical standards as defined by the American Nurses Association (ANA) in the Code of Ethics (https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/). Personal integrity is reflected in professional judgments. Consequently, the College reserves the right to dismiss students from the program for unprofessional or unsafe behavior. See College of Nursing and Health Sciences Student Handbook for examples.

**Advising**

Every effort has been made to assure the accuracy of the information in this catalog. Students are advised, however, that such information is subject to change without notice. Therefore, students should consult with their academic advisors each semester prior to registration. Students should be aware that courses are offered upon sufficient demand and faculty availability.

A student is assigned an academic advisor and a faculty chair. The student and advisors work together to generate a program plan according to the student's academic, occupational and family needs. The advising team and student work together until the student graduates.

**For Additional Information**

Website: [http://conhs.tamucc.edu](http://conhs.tamucc.edu)

Contact: Dr. Tammy McGarity | DNP Program Coordinator

Phone: (361) 825-2607
Admission Requirements

Students seeking admission to the Doctor of Nursing Practice program will need to:

1. Complete an application to the University for admission to graduate study and to the DNP Program.
2. Have earned a Master of Science in Nursing or equivalent Master's degree.
3. Provide evidence of current valid unencumbered licensure as a registered nurse with authority to practice in Texas.
4. Have earned a satisfactory grade point average of 3.0 on 4.0 scale in their graduate nursing program.
5. Write a 500 word essay explaining why they are enrolling in a Doctor of Nursing Practice program.
6. Submit three letters of recommendation from individuals knowledgeable about their potential to work effectively in advanced, professional, and scholarly roles.
7. Provide a current resume that delineates an applicant's professional contributions and work experiences and contains sufficient information to represent the applicant's accomplishments in nursing.
8. Hold national certification as a Nurse Practitioner (for DNP in NP only).
9. Submit a copy of authorization to practice as an Advanced Practice Registered Nurse (APRN) in Texas (for DNP in NP only).
10. Have completed within the past seven years, a graduate-level inferential statistics course with a grade of B or better. Provisional admission is possible for students who do not meet this requirement. Students admitted with provisional status must complete this requirement within the first academic year of the DNP program and before enrolling in any research course.
11. Have completed a graduate level research course.

Program Requirements

Curriculum

The core nursing courses consist of graduate-level study of the scientific knowledge that comprises the discipline and profession of nursing, and prepares the student for advanced nursing practice.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 6300</td>
<td>Health Policy and Economics for the DNP *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 6301</td>
<td>Epidemiology and Statistics for Evidence-Based Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 6302</td>
<td>Genomics in Health Care *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 6303</td>
<td>System Behavior and Impact on Health Care *</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced Specialty Course

Select one of the following:

Nurse Practitioner Special Course

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 6321</td>
<td>Application of Advanced Principles for Clinical Nursing Practice *</td>
<td>1</td>
</tr>
</tbody>
</table>

Nurse Executive Specialty Course

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 6331</td>
<td>Advanced Principles for Executive Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

DNP Seminar

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 6395</td>
<td>DNP Project Seminar (taken each of final 4 semesters)</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours 40

* Online offering

Field Experiences

Students are expected to complete a minimum of 1000 hours of field experience related to their courses and focus of study. Appropriate field or clinical hours completed in an MSN program will be counted as part of the 1000 hours (up to 500). Applicants will be required to demonstrate these hours were completed in relevant settings. The Graduate Nursing Department has final authority in approving the total number of hours completed outside the DNP program. Students will be responsible for identifying and selecting agencies or preceptors for their field experiences. For more information please see the CONHS Doctoral Student Handbook under Current Students.

DNP Project

All students must complete a scholarly project as a requirement for the DNP degree. The project provides an opportunity for students to demonstrate their ability to develop effective interventions for patients and patient populations with complex health problems. The projects will be completed through multi-disciplinary collaborative partnerships and under faculty guidance.

Master Degree Programs

- Family Nurse Practitioner, MSN (p. 188)
- Leadership in Nursing Systems, MSN (p. 189)
- Nurse Educator, MSN (p. 189)
- Nursing, MSN (p. 189)

Family Nurse Practitioner, MSN

Program Description

The core nursing courses consist of graduate-level study of the scientific knowledge that comprises the discipline and profession of nursing, and prepares the student for advanced nursing practice.
Role Specialization
The student selects role specialization in Family Nurse Practitioner.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5310</td>
<td>Science in Nursing *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5314</td>
<td>Research Methods in Advanced Nursing Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5315</td>
<td>Health Policy and Cultural Diversity *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5316</td>
<td>Introduction to Advanced Practice Role Development *</td>
<td>3</td>
</tr>
</tbody>
</table>

Role Specialization

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5324</td>
<td>Advanced Pharmacological Concepts *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5323</td>
<td>Finance for the Nurse Practitioner *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5341</td>
<td>Wellness and Health Promotion *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5326</td>
<td>Advanced Physiology with Pathophysiological Applications *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5624</td>
<td>Advanced Health Assessment and Differential Diagnosis *</td>
<td>6</td>
</tr>
<tr>
<td>NURS 5644</td>
<td>Management of Acute and Chronic Illness I *</td>
<td>6</td>
</tr>
<tr>
<td>NURS 5645</td>
<td>Management of Acute and Chronic Illness II *</td>
<td>6</td>
</tr>
<tr>
<td>NURS 5746</td>
<td>Integrated Clinical Practice: FNP *</td>
<td>7</td>
</tr>
</tbody>
</table>

Total Hours 49

* Online offering

Nurse Educator, MSN

Program Description
The core nursing courses consist of graduate-level study of the scientific knowledge that comprises the discipline and profession of nursing, and prepares the student for advanced nursing practice.

Role Specialization
The student selects role specialization in Nurse Educator.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5310</td>
<td>Science in Nursing *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5314</td>
<td>Research Methods in Advanced Nursing Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5315</td>
<td>Health Policy and Cultural Diversity *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5316</td>
<td>Introduction to Advanced Practice Role Development *</td>
<td>3</td>
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</tbody>
</table>

Role Specialization

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5324</td>
<td>Health Assessment for Advanced Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5326</td>
<td>Advanced Physiology with Pathophysiological Applications *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5351</td>
<td>Advanced Pharmacological Concepts for Nursing Educators *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5352</td>
<td>Nursing Curriculum Planning, Development, and Evaluation *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5353</td>
<td>Theory and Concepts for the Nurse Educator *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5354</td>
<td>Assessment, Measurement, and Evaluation in Nursing *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5355</td>
<td>Instructional Teaching Strategies *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5459</td>
<td>Education Practicum for the Nurse Educator *</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours 37

* Online offering

Leadership in Nursing Systems, MSN

Program Description
The core nursing courses consist of graduate-level study of the scientific knowledge that comprises the discipline and profession of nursing, and prepares the student for advanced nursing practice.

Role Specialization
The student selects role specialization in Leadership in Nursing Systems. A capstone course (identified below) is required for each specialization.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5310</td>
<td>Science in Nursing *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5314</td>
<td>Research Methods in Advanced Nursing Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5315</td>
<td>Health Policy and Cultural Diversity *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5316</td>
<td>Introduction to Advanced Practice Role Development *</td>
<td>3</td>
</tr>
</tbody>
</table>

Role Specialization

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5163</td>
<td>Project Management for Nurse Leaders (1) *</td>
<td>1</td>
</tr>
<tr>
<td>NURS 5261</td>
<td>Human Capital Management (2) *</td>
<td>2</td>
</tr>
<tr>
<td>NURS 5331</td>
<td>Nursing informatics *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5360/5325</td>
<td>Health Care Financial Management *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5362</td>
<td>Leadership Theories in Nursing Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5364</td>
<td>Organizational Design and Behavior in Nursing Practice Environments *</td>
<td>3</td>
</tr>
</tbody>
</table>

Nursing, MSN

Program Description
The Master of Science in Nursing degree enhances and expands the clinical competence of baccalaureate nurses. The focus of the degree is to prepare nurses for advanced nursing practice in nursing leadership, family nurse practitioners, or nurse educators. Emphasis is placed on facilitating health care delivery within a multicultural framework. The graduate nursing curriculum includes four core courses and specific courses related to role specialization within the three degrees. Three minor areas of study are also available for students seeking to refine their skills as leaders/managers, practitioners, or educators. The variety of learning opportunities and the flexibility of options provided by the
curriculum will accommodate the diverse clinical and functional interests of students who enroll in the program. Each degree provides a specialty area of study that includes courses with clinical laboratory components that whenever possible, can be completed in the communities where students reside. In some cases students may have to travel to clinical agencies to access experiences essential to course objectives. The lecture component in all of the graduate nursing courses is offered online. See the semester class schedule for details.

**Student Learning Outcomes**

Students will:

- Critically analyze, interpret, and integrate appropriate knowledge, research and theories to meet the health care needs of diverse populations;
- Apply competent leadership and collaborative skills as members of a multi-professional health care workforce to promote high quality and safe patient care;
- Design evidence-based plans to sustain quality initiatives that promote a transparent professional environment and contribute to the delivery of safe high quality care;
- Integrate research into professional practice through the implementation of translational processes;
- Demonstrate competence and accountability as clinicians, educators, and leaders in advanced healthcare roles;
- Model caring, sensitivity and respect in the delivery of health care to culturally diverse populations;
- Operationalize principles of ethical, legal, financial and economic theories as applied to health care delivery systems;
- Guide the adoption and use of information, communication technologies and resources to document patient care and improve patient outcomes.
- Evaluate the effect of legal and regulatory processes on nursing practice, healthcare delivery, and outcomes using critical analysis of policies that influence health services.

The expected outcomes for the Master of Science Degree in Nursing are also published in the *College of Nursing and Health Sciences Student Handbook*.

**Graduation Requirements**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>12</td>
</tr>
<tr>
<td>Nursing Specialty Courses</td>
<td>25-37</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td><strong>37-49</strong></td>
</tr>
</tbody>
</table>

The TAMU-CC College of Graduate Studies Recency of Credit rule requires that all credit earned for a graduate degree must be completed within seven years of the first semester in which a student is enrolled in a graduate program. This requirement means that students are expected to complete their MSN program in seven years. In rare situations, an exception to this seven-year policy may be granted from the Dean for the College Graduate Studies when a student is unable to complete courses in this time period. The student must complete a request with an explanation as to why the exception should be made as soon as the student determines that courses will not be completed within this time frame. The request should be submitted to the Graduate Nursing Department Academic Advisor and the Graduate Nursing Department Chair.

**For Additional Information**

**Website:**
http://conhs.tamucc.edu

**Phone:**
(361) 825-5893 - CONHS Graduate Academic Advisor

**Campus Address:**
Island Hall 322

**Mailing Address:**
College of Nursing and Health Sciences
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5805

**Admission Requirements**

Registered nurses have three entry options to the Master of Science in Nursing program. Individuals who have earned a Master's of Science in Nursing degree but would like to acquire a new specialty area of practice may apply to the College post-master's certification programs. For admission to any of the College programs all applicants must:

1. Complete an application to the University for admission to graduate study and to the MSN Program for degree student status. Applications should be made through College of Graduate Studies using the application in Apply Texas. See the Admissions section of the catalog.
2. Students must complete an online application to the College of Nursing and Health Sciences using Nursing CAS. If the student is not already enrolled at Texas A & M University-Corpus Christi, the student must also apply to the University for admission. Admission to the University does not constitute admission to the nursing program.
3. Provide evidence of a current valid unencumbered licensure as a registered nurse with authorization to practice in Texas.
4. Have earned a satisfactory grade point average (4.0 scale): 3.00 GPA on the last 60 semester hours.
5. Write an original essay describing professional goals associated with graduate nursing education. Guidelines for this essay are available at https://gradschool.TAMU-CC.edu/forms/CONHS_Graduate_Form.php.
6. Submit three letters of recommendation from individuals who can address their potential for graduate study. At least one of these references should be from an individual who can address an applicant’s level of professional competence.
7. Provide a current resume that delineates an applicant’s professional contributions and work experiences and contains sufficient information to represent the applicant’s accomplishments in nursing. The resume should include information about an applicant’s professional activities outside the work place. Guidelines are available at https://gradschool.TAMU-CC.edu/forms/CONHS_Graduate_Form.php.
8. Additional information will be required from applicants before full admission can be granted. Applicants must demonstrate compliance with Texas Administrative Code immunization for health professional student regulations, Texas Board of Nursing disclosure of criminal history or disciplinary action, and affiliated clinical agency...
requirements for access to clinical experiences. Details are outlined under the Program Requirements section below.

The Graduate Nursing Department Admission, Progression, and Graduation (APG) Committee will consider the information provided in the application and supporting documents for in admission decisions. After due consideration the APG Committee may permit a student who wishes to pursue the Master of Science in Nursing degree, but does not meet the requirements for admission to the Graduate Nursing Program, to enroll on a conditional status. Contact the Graduate Nursing Academic Advisor for instructions on requesting waivers to the admission requirements. Progression through the program will require a student meet the conditions associated with admission within the timeframe designated if a waiver is granted.

Students who request to transfer into the TAMU-CC MSN program from another program must submit evidence that they left their former institution in good standing before an admission decision will be made. Except in rare situations applications for the Family Nurse Practitioner degree will only be reviewed for a fall semester admission.

Program Requirements for all Nursing Graduate Students

Students will be considered out of compliance if a designated immunization or other item required to be submitted to the CONHS Castle branch database manager or other agency is not updated by the designated deadline throughout their clinical courses. Additionally, there may be further requirements from a clinical facility that students will be required to meet. Any student who is out of compliance may be disenrolled from his/her classes.

The following program requirements apply to all nursing graduate students upon admission and throughout program of study. Students must:

1. Have completed an undergraduate nursing program or earned a diploma from an NLNAC or CCNE accredited school of nursing.
2. Successfully complete (with a grade "C" or above) a course in statistics
3. Hold current unencumbered licensure as a registered nurse with authorization to practice in Texas
4. Upon admission to the College, complete a criminal background check.
5. Complete a ten panel non-chain of custody urine drug screen.
6. Purchase professional liability coverage through the University. Fees for this coverage are included in the fees paid at the time of registration at the beginning of each academic year.
7. Meet Texas Department of State Health Services immunization requirements for students in health professions programs. Students must complete and present evidence that immunizations are complete and current prior to starting classes. Immunizations must remain current throughout the program. Students will not be allowed into courses or clinical laboratory agencies if evidence of compliance is missing. These requirements, as stated in the Texas Administrative Code, Title 25, Part 1, Chapter 97, Subchapter B, Rule 97.64 (https://texreg.sos.state.tx.us/public/readtac%24ext.TacPage/?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=25&pt=1&ch=97&sch=B&rl=Y) include the following:
   a. "Students may be provisionally enrolled for up to one semester to allow students to attend classes while obtaining the required vaccines and acceptable evidence of vaccination."
b. "Students cannot be provisionally enrolled without at least one dose of measles, mumps, and rubella vaccine if direct patient contact will occur during the provisional enrollment period."
c. "Polio vaccine is not required. Students enrolled in health-related courses are encouraged to ascertain that they are immune to poliomyelitis."
d. "One dose of tetanus-diphtheria toxoid (Td) is required within the last ten years."
e. "Students who were born on or after January 1, 1957, must show, prior to patient contact, acceptable evidence of vaccination of two doses of measles-containing vaccine administered since January 1, 1968."
f. "Students must show, prior to patient contact, acceptable evidence of vaccination of one dose of rubella vaccine."
g. "Students born on or after January 1, 1957, must show, prior to patient contact, acceptable evidence of vaccination of one dose of mumps vaccine."
h. "Students shall receive a complete series of hepatitis B vaccine prior to the start of direct patient care or show serologic confirmation of immunity to hepatitis B virus."
i. "Students shall receive two doses of varicella vaccine unless the first dose was received prior to thirteen years of age."

Rule 97.65 lists the following exceptions to the immunization requirements:
   i. "Serologic confirmations of immunity to measles, rubella, mumps, hepatitis A, hepatitis B, or varicella are acceptable. Evidence of measles, rubella, mumps, hepatitis A, hepatitis B, or varicella illness must consist of a laboratory report that indicates either confirmation of immunity or infection."
   ii. "A parent or physician validated history of varicella disease (chickenpox) or varicella immunity is acceptable in lieu of vaccine. A written statement from a physician or the student's parent or guardian, or school nurse, must support histories of varicella disease."

8. Complete a tuberculosis screening annually.
9. Hold a current American Heart Association or Red Cross Healthcare Provider CPR certification.

The CONHS will provide students with information about procedures to meet these admission requirements. See the BON website www.bon.texas.gov/ (http://www.bon.texas.gov/) for the statuses and rules regulating licensure.

For additional information, please see the Texas Administrative Code, Title 25, Part 1, Chapter 97, Subchapter B (https://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC/?tac_view=5&ti=25&pt=1&ch=97&sch=B&rl=Y), which is accessible at http://www.sos.state.tx.us/tac/index.shtml (http://www.sos.state.tx.us/tac/index.shtml/). Please note that some agencies where you may choose to complete clinical experiences may have stricter requirements than the state minimum standards. Students will have to meet agency requirements to gain access for clinical.

Health insurance coverage is highly recommended as neither the university nor clinical agencies are held responsible for emergency/
health care arising from a laboratory assignment. See University Student Handbook.

Progression, Retention, and Dismissal

All students must meet the standards for minimal performance and progression established by TAMU-CC Office of Graduate Studies. See catalog section on Graduate Academic and Degree Requirements.

1. When a grade lower than a C is earned the student:
   a. Must repeat a course in which a grade of D, F, or W (Withdrawal) was earned.
   b. May be placed on scholastic probation if the GPA falls below 3.0 because of the D, F, or W.
   c. Will be removed from scholastic probation in accordance with university policy. See Scholastic Probation and Enforced Withdrawal in this catalog.
   d. May not progress to courses for which that course is a prerequisite when a grade of D, F, W or I (Incomplete) was earned.

2. If the student earns a third C or below in the program, the student cannot progress further and is required to withdraw from the program even when the GPA does not fall below 3.0. (Grades earned in the RN-Bridge or RN-MSN program count in the total number of grades earned in the program. Therefore all grades below a B will be considered in progressions decisions.)

3. The student cannot progress to next course after withdrawing from two courses in the program unless approved by the APG Committee. A plan to complete the program must be submitted to the Committee before a progression decision can be made. Admission to courses that need to be completed will depend on space availability.

4. The student may be dismissed from the program without previous warning for unsafe and/or unprofessional behavior identified by College administrators and faculty. The conduct of nursing students should meet ethical standards as defined by the American Nurses Association (ANA) in the Code of Ethics (https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/). Personal integrity is reflected in professional judgments. Consequently, the College reserves the right to dismiss students from the program for unprofessional or unsafe behavior. See College of Nursing and Health Sciences Student Handbook for examples.

5. Students admitted conditionally to the College must earn a B or better in each of the first four MSN courses to remain in the MSN program. If a grade of less than B is earned during the period the student is classified as a conditional student, the student will be prohibited from further enrollment in the MSN program. Students pursuing the RN-Bridge or RN-MSN options are not eligible for enrollment under the conditional admission status.

Admission to the CONHS is highly competitive. Students who drop a course or do not enroll in a semester in which they are eligible to enroll will only have access to subsequent courses in their area of study when space is available. Therefore it is highly recommended that students consult the graduate nursing academic advisor or the graduate nursing department chair before withdrawing from any course.

Program Options

MSN Degree

Registered nurses who want to earn a Master of Science in Nursing degree may enter the graduate program through one of three entry options. These options include the BSN (also referred to as traditional), RN-Bridge, and RN-MSN options.

Applicants who have earned a BSN from an accredited program can start graduate course work upon admission to the MSN program.

Applicants who are registered nurses with baccalaureate degrees in disciplines other than nursing can enter the MSN program through RN-Bridge option. Students must complete undergraduate level courses before they can begin graduate courses that lead to the MSN. The 18 hours of RN-Bridge undergraduate courses include:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3435</td>
<td>Health Assessment</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4318</td>
<td>Nurse as Research Consumer</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4560</td>
<td>Nursing Care of Community - RN/BSN</td>
<td>5</td>
</tr>
<tr>
<td>NURS 4471</td>
<td>Leadership/management - RN/BSN</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Articulation agreements exist between A&M- Corpus Christi and associate degree nursing programs to support student access to this MSN entry option. Registered nurses who have earned a diploma or associate degree in nursing from an accredited program and who meet all other requirements for admission into the MSN degree program are eligible to apply for the RN-MSN entrance option. Students who enter the MSN program through this option will not earn a bachelor’s degree in nursing at any stage of their course work.

The RN-MSN student must complete 58 credit hours of designated general education and support courses in accordance with the A&M-Corpus Christi University Core Curriculum transfer policy requirements and the Bachelor of Science degree requirements for prescribed support courses, as specified in the Undergraduate Catalog. Equivalency tables are available showing which general education and nursing courses will be accepted for transfer to meet these required hours.

Prior to beginning master’s level course work, the RN-MSN student must complete the following prescribed course work:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3435</td>
<td>Health Assessment</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4324</td>
<td>Nurse as Caregiver - RN/BSN</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4560</td>
<td>Nursing Care of Community - RN/BSN</td>
<td>5</td>
</tr>
<tr>
<td>NURS 4471</td>
<td>Leadership/management - RN/BSN</td>
<td>4</td>
</tr>
<tr>
<td>NURS 4318</td>
<td>Nurse as Research Consumer</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Students in the RN-Bridge and RN-MSN program must complete all of the undergraduate course work before beginning graduate classes. In order to progress in these entrance options, students must maintain a 3.00 grade point average. Students may earn credit for NURS 3435 Health Assessment (4 sch) and NURS 4324 Nurse as Caregiver - RN/BSN (3 sch) through a challenge examination process when a score of 83% or better is earned on the examination. If the challenge examination results are not successful, the student may move to the RN-BSN track and take the course in question. The student may not reenter the RN-MSN track. The student may not progress through the RN-MSN track if the challenge exam score is less than 83% and the student does not want to enter the RN-BSN option.
Course work completed by students in the RN-MSN program may transfer to the undergraduate RN-BSN track when students decide they are unable to maintain the accelerated pace of the RN-MSN track. Students may not reenter the RN-MSN track once they have withdrawn from this option.

Post Masters Certification
Post-masters certification is available for students that have earned their MSN Degree. Certification will allow registered nurses to expand their scope of practice beyond the role or population focus associated with their current credentials. Post-Masters-Certification-Only students automatically will be considered to have completed the MSN core courses based on the completion of the master’s degree. All progression requirements apply to students enrolled in this program. See Role Specialization Section for available list of minor or post masters areas of study.

Non-degree-seeking Students
Non-degree status is designated for the student who wants to enroll in graduate course work to meet unique personal or career goals that do not lead to a graduate degree or certification. Colleges may place restrictions on the enrollment of students admitted in this status. Students must see a nursing advisor and the graduate nursing department chair to discuss their educational career goals.

Advising
Every effort has been made to assure the accuracy of the information in this catalog. Students are advised, however, that such information is subject to change without notice. Therefore, students should consult with their academic advisors each semester prior to registration. Students should be aware that courses are offered upon sufficient demand and faculty availability.

A student is assigned an academic advisor and a faculty advisor. The student and advisors work together to generate a program plan according to the student's academic, occupational and family needs. The advising team and student work together until the student graduates.

Non-Degree
• Leadership in Nursing Systems, Minor (p. 193)
• Nurse Educator, Minor (p. 193)

Leadership in Nursing Systems, Minor

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5163</td>
<td>Project Management for Nurse Leaders (1) *</td>
<td>1</td>
</tr>
<tr>
<td>NURS 5261</td>
<td>Human Capital Management (2) *</td>
<td>2</td>
</tr>
<tr>
<td>NURS 5360</td>
<td>Health Care Financial Management *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5362</td>
<td>Leadership Theories in Nursing Practice *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5364</td>
<td>Organizational Design and Behavior in Nursing Practice Environments *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5365</td>
<td>Quality and Outcomes Management *</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

* Online offering

Nurse Educator, Minor

Program Description
Emphasis is on instruction in curriculum, program and course design, development, and evaluation. Focus is also placed on theory and concepts for the development of the nurse educator role. A laboratory experience consisting of teaching instruction in the academic or clinical area provides students with the opportunity to apply theory to classroom or clinical environments.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5352</td>
<td>Nursing Curriculum Planning, Development, and Evaluation *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5353</td>
<td>Theory and Concepts for the Nurse Educator *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5354</td>
<td>Assessment, Measurement, and Evaluation in Nursing *</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5459</td>
<td>Education Practicum for the Nurse Educator *</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

* Online offering

College of Science and Engineering

Graduate Programs

The objectives of graduate study are to develop a student’s capacity to solve problems and learn independently, to familiarize the student with past and current research in a particular field, and to enable the student to conduct research and relate it to published research, other scholarly investigations, and disciplinary principles and theories.
Graduate studies differ from undergraduate studies in that graduate students must demonstrate even more responsibility and initiative in acquiring the knowledge, methods, and skills needed to achieve success in their chosen disciplines. Graduate students must read both extensively and intensively. They must conduct original scholarly work, think creatively and productively, and participate in activities which help develop scholarly commitment and stimulate continued intellectual growth.

The College of Science and Engineering offers the graduate degrees listed above. In addition, the College offers graduate coursework in the following disciplines:

- Biomedical Sciences
- Engineering Technology
- Geographic Information Science
- Geology
- Physical Science
- Physics
- Science, Mathematics and Technology Education

Centers for Research and Continuing Education
Research units within or related to the College of Science and Engineering provide further opportunities for graduate student research. These units include the Harte Research Institute for Gulf of Mexico Studies, the Center for Coastal Studies, the Conrad Blucher Institute for Surveying and Science, the Center for Water Supply Studies, the National Spill Control School, and the Center for Information Assurance, Statistics, and Quality Control. See the Research Resources section of this catalog for further information.

Admission to Graduate Programs
Consult the Admissions section of this catalog for university requirements for admission and graduate degrees. Students seeking admission to the Doctor of Philosophy program with a major in Coastal and Marine System Science, Geospatial Computer Science or Marine Biology or the Master of Science program with a major in Biology, Chemistry, Coastal and Marine System Science, Computer Science, Environmental Science, Geospatial Systems Engineering, Fisheries and Mariculture, Marine Biology, or Mathematics must submit completed applications through the Office of Admissions. The Office of Admissions indicates the specific dates that applications should be complete for acceptance to the summer, fall, or spring semester, respectively. A complete application to a graduate degree program within the College of Science and Engineering consists of the completed application form, GRE scores if required by the program, complete transcripts, and other information or documentation as required by the specific degree program. Additional requirements exist for international students. Consult the section of the graduate catalog pertaining to the degree program of interest for specific admission requirements.

Degree Program Admission Procedure
The Office of Recruitment and Admissions compiles all applications for graduate degree programs, and then forwards the application materials of eligible students to the College of Science and Engineering for further forwarding to the Graduate Selection Committee of the specific degree program. The committee, usually composed of faculty from the discipline, will review the applications, make judgments concerning the acceptance or rejection of applicants, and assign graduate advisers.

An application procedure is necessary because only a limited number of students can be accepted to graduate study in any semester based upon limitations in both faculty and facility resources. When there are more qualified applicants than can be instructed adequately, students may be delayed in their acceptance to the degree program even though they have met all requirements.

An incoming student is expected to know fundamental concepts in the relevant discipline. The student, therefore, may be required to make up deficiencies in fundamentals by enrolling in appropriate foundation courses. In some cases admission may be delayed until an applicant has completed each foundation course with a "B" or better grade. In no case will a foundation course count towards the total number of hours required for the Doctor of Philosophy or Master of Science degree.

Graduate Orientation
All students seeking graduate degrees in the College of Science and Engineering must attend the graduate student orientation to be held by the University in conjunction with the College of Graduate Studies, the College of Science and Engineering and the program of their major near the beginning of their first semester of coursework at Texas A&M University–Corpus Christi.

Residency Requirement
Each degree program within the College of Science and Engineering has a minimum enrollment requirement for degree candidates. Refer to the description of the specific degree program for details.

Reinstatement After Enforced Withdrawal
Students on enforced withdrawal may not re-enroll in graduate studies in the College of Science and Engineering until after a period of 12 consecutive months. Refer to university section of catalog on “Scholastic Probation and Enforced Withdrawal (p. 19)” for additional details.

Graduate Courses
General prerequisite for 5000-level and 6000-level courses: Graduate standing. Senior undergraduates in their last semester or summer session of undergraduate work may take 5000-level courses provided that they have a cumulative grade point average of 3.0 or better, and that written approval is obtained from the Dean of the college in which the work is offered. For other conditions that may apply, see “Graduate Study by Undergraduates” in the section of the catalog entitled “Graduate Academic and Degree Requirements (p. 19).”

With the exception of courses offered by those masters degree programs that require graduate leveling, students may take no more than nine graduate hours in the College of Science and Engineering unless they are accepted into a graduate degree program within the College of Science and Engineering. Students accepted into graduate programs in other colleges of the University may not take courses in the College of Science and Engineering unless those courses are specified in the degree plan. Non-degree seeking students may take no more than one semester of courses in the College of Science and Engineering. In any case, the total number of courses taken within the College of Science and Engineering by students who are not yet accepted into a degree program in the College of Science and Engineering may not exceed nine hours.
Weekly lecture and laboratory hours associated with each course are designated by (lecture: lab) following the semester hours in the catalog course listing.

**Directed Independent Study (DIS)**

Each area of the College offers courses in directed independent study. These courses appear with a SX96 number (“X” ranges from 1-6 semester hours) in the course offerings of each discipline and may carry variable credit depending upon the course design. The number of credit hours must be approved by the instructor, the Department Chairperson/Director, and the Dean in advance of registration. These courses may be repeated to total no more than six semester credit hours.

**Final Oral Examination**

Requirements for a final oral examination may be found in the catalog section on the specific degree specialty. See the degree requirements for the particular program.

**Approval of Thesis, Project Report or Professional Paper**

The graduate thesis, project report, or professional paper must be prepared in a style and format that is prescribed by the specific degree program. Copies of the signed thesis, project report, or professional paper must be submitted to the Office of the Dean of the College of Science and Engineering on or before the last day of classes for the Dean's approval and signature (the specific number of copies will be designated by the College). The Dean’s Office will be responsible for distributing the copies to the appropriate offices. The student must pay for binding of the dissertation or thesis, if required. Thesis formatting and submission requirements have changed. Please visit the following link for further information: http://gradschool.tamucc.edu/current_students/doctoral_dissertation.html.

**Approval of Dissertation**

The process required for approval of the dissertation is described in the Coastal and Marine System Science Doctor of Philosophy, Geospatial Computer Science Doctor of Philosophy, and Marine Biology Doctor of Philosophy sections.

**Programs**

- Doctoral Degree Programs (p. 195)
  - Coastal and Marine System Science, PhD (p. 195)
  - Marine Biology, PhD (p. 199)
- Doctoral Degree Programs - School of Engineering and Computer Sciences (p. 204)
  - Geospatial Computer Science, PhD (p. 204)
- Master Degree Programs (p. 214)
  - Biology, MS (p. 214)
  - Chemistry, MS (p. 219)
  - Coastal and Marine System Science, MS (p. 223)
  - Environmental Science, MS (p. 227)
  - Fisheries and Mariculture, MS (p. 232)
  - Marine Biology, MS (p. 237)
  - Mathematics, MS (p. 241)
- Master Degree Programs - School of Engineering and Computer Sciences (p. 247)
  - Computer Science, MS (p. 247)
  - Geospatial Systems Engineering, MS (p. 254)

**Doctoral Degree Programs**

- Coastal and Marine System Science, PhD (p. 195)
- Marine Biology, PhD (p. 199)

**Coastal and Marine System Science, PhD**

**Program Description**

Coastal and Marine System Science studies the interactions within the coastal and marine environment, which includes most of the critical physical and biological systems that support life on Earth. The mission of the Coastal and Marine System Science (CMSS) program is to support interdisciplinary research and scholarship on the biotic and abiotic components of this zone, as well as quantitative investigation of socioeconomic and political processes. The program addresses this mission by integrating the tools of Earth System Science: biogeochemistry, geographic information science, ecosystem dynamics, and quantitative modeling. Students who earn PhD degrees in the sciences are typically employed in teaching or research positions in universities, or in pure research applications at specialized institutions or governmental agencies.

With the increasing efficiency of real-time data collection, transfer, and processing, aided by autonomous observation systems such as satellite sensors, oceanic buoys, and remotely controlled or autonomous submersibles, Coastal and Marine System Science is at the forefront of extracting meaningful scientific results from large data sets in near real time. Graduates of the CMSS program will demonstrate proficiency in understanding and applying the concepts and principles of all of the natural sciences as well as a working competence in mathematical modeling and geospatial analysis.

All students share a core of five interdisciplinary courses that cover the foundations of mathematical modeling, environmental policy, and case studies in system science. Topical specialized coursework (determined by the graduate advisory committee of each individual student) provides grounding in the specific scientific disciplines needed to effectively manage the coastal and marine system. After the completion of any required leveling courses and all core classes (with the exception of the seminar class, CMSS 6102) students must successfully complete a comprehensive examination for advancement to doctoral candidacy. This examination should be scheduled no later than 24 months after initial enrollment. The required dissertation involves an independent, detailed research project of importance to the international scientific community. The graduate advisory committee of each student will guide them through the conception, design, construction, and execution of a systems-based inquiry.

**Student Learning Outcomes**

As part of their progression through the Coastal and Marine System Science program, the students will:

- acquire the skills required for system science studies applied to coastal and marine topics such that they are prepared to conduct CMSS original research
- perform original and hypothesis-driven quantitative analyses that will lead to comprehensive verifiable models of natural systems
- emphasize mathematical and/or analytical skills to generate new data and critically evaluate models that will aid in our
understanding of dynamic natural systems, become a resource capable of answering environmental “what if” questions by providing comprehensive interpretation

- develop the skills necessary to present and publish their work at national and international venues
- develop the skills necessary to effectively teach effectively a college-level class in the area of sciences and technology
- develop a skill set and research record such that they can secure employment at universities, federal agencies, private companies, or non-governmental organizations where they can apply the skills and knowledge acquired during their time in the program

For Additional Information

Website: http://cmss.tamucc.edu/

Campus Address:
Natural Resource Center, Room 3500
Phone: (361) 825-2814 (Alessandra Garcia)

Mailing Address:
Coastal and Marine System Science Program, Unit 5850
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5850

Admission Requirements

Applicants seeking admission to the CMSS Program must apply through the Office of Recruitment and Admissions. In addition to the documents required by the Office of Admissions and Recruitment, applicants must submit GRE general test scores, an essay of no more than 1,000 words describing their educational background, career interests, goals and challenges, a curriculum vitae, and three letters of evaluation from persons knowledgeable about their potential for success in graduate studies. Applicants seeking admission to the PhD Program in CMSS should first contact the program faculty and identify a faculty member willing to serve as their graduate advisor. In addition, applicants will not be admitted to the program without a graduate advisor. Applicants may optionally submit other relevant materials, e.g., copies of published works or reports of past scientific research. All materials submitted will be considered. A campus visit with personal interviews involving prospective faculty mentors is highly recommended. Completed applications must be received by the Office of Recruitment and Admissions by the deadlines posted on Admissions website.

- Fall Semester-December 1
- Spring Semester-August 1 (June 1 for international applicants)
- Summer Semester-December 1

Incomplete applications are not considered. The applicant will be notified of acceptance or rejection by letter.

Students accepted into the degree program must demonstrate proficiency in the natural sciences, mathematical modeling, and geospatial technology. This proficiency can be demonstrated by the successful completion of undergraduate classes in these topics, or by presentation of satisfactory evidence to the CMSS Program Coordinator. Students who are unable to demonstrate proficiency in the natural sciences, mathematics, or geospatial technology may be required to take undergraduate or graduate leveling courses in these areas. These courses will not apply towards the required credit hours for the PhD degree.

Teaching assistantships, graduate research assistantships, and fellowship positions are available to admitted degree-seeking students who maintain full-time graduate student status (9 credit hours per long semester and 3 credit hours during the summer).

Program Requirements

Each student accepted to the CMSS Ph.D. degree program must complete a minimum of 90 hours beyond the bachelor’s degree or 60 hours beyond the master’s degree, including the 15-hour CMSS Core Curriculum. If any of the core courses have been previously taken by the student, up to 9 hours can be replaced with elective courses or research courses at the discretion of the graduate advisory committee. The majority of credit hours will be in formal research, but the program requires a minimum of 18 credit hours (for students with an M.S. degree) or 30 credit hours (for students without an M.S. degree) of regular graded coursework on a Ph.D. degree plan. Justification for exceptions to this rule should be prepared by the student and advisor(s), endorsed by the advisory committee, and attached to the degree plan when submitted for the department head’s signature. A student’s advisory committee must approve the program degree plan. All students must pass a final dissertation defense, to be administered by their advisory committee, during their last semester before graduation.

Admission from a Bachelor’s Degree Option

Students accepted into the Coastal and Marine System Science PhD Program with only a bachelor’s degree (i.e., without an MS degree) must complete a minimum of 90 semester hours of coursework and research.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSS 6312</td>
<td>Communicating Science Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Elective Coursework</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Research Coursework</td>
<td>51-57</td>
<td></td>
</tr>
<tr>
<td>CMSS 6999</td>
<td>Dissertation Defense</td>
<td>3-9</td>
</tr>
</tbody>
</table>

Core Coursework

Core: Multidisciplinary Course Choices

Select two of the following:
- CMSS 6307 Coastal and Marine Systems
- GSEN 6330 Spatial Systems Science
- CMSS 6359 Marine Ecosystem Dynamics
- CMSS 6370 Coastal Management and Ocean Law

Core: Math and Statistics Course Choices

Select two of the following:
- MATH 6315 Statistical Methods in Research I
- MATH 6316 Statistical Methods Research II
- CMSS 6323 Experimental Design
- CMSS 6352 Environmental Forecasting
- CMSS 6360 Computer Programming in Earth System Sciences

Total Hours: 84-96

Admission from a Master’s Degree Option

Students accepted into the Coastal and Marine System Science PhD Program with a master’s degree (i.e., with a MS degree) must complete a minimum of 60 semester hours of coursework and research.
Three courses are taken for the main research component of the degree: Defense Research, Dissertation Research, and Dissertation stipulated by the graduate advisory committee. Depending on the emphasis area, selections may include a coherent course of study focused on the student's particular area of graduate coursework.

Elective coursework

Elective coursework is offered under the heading of CMSS 6990 Advanced Topics (1-5 sch). Classes or research projects designated as part of the elective coursework requirement must receive the approval of a student's graduate advisory committee. Students must demonstrate to the committee that the selection of classes or research projects produces a coherent course of study focused on the student's particular area of emphasis. Depending on the emphasis area, selections may include coastal and marine system science, marine biology, the natural sciences, computer science, geographic information science, mathematics, political science, public administration, business law, or other areas as stipulated by the graduate advisory committee.

Research, Dissertation Research, and Dissertation Defense

Three courses are taken for the main research component of the degree:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSS 6996</td>
<td>Research</td>
<td>1-9</td>
</tr>
<tr>
<td>CMSS 6998</td>
<td>Dissertation Research</td>
<td>1-9</td>
</tr>
<tr>
<td>CMSS 6999</td>
<td>Dissertation Defense</td>
<td>3-9</td>
</tr>
</tbody>
</table>

During the initial phase of the program, students take CMSS 6996 Research (1-9 sch) with approval of their advisor. Students can also enroll in CMSS 6996 Directed independent Study (1-5 sch), supervised by their advisor or other faculty members at any stage of the program progression. Once students have passed their qualifying exam and become degree candidates, they must take CMSS 6998 Dissertation Research (1-9 sch) with approval of their advisor. The courses CMSS 6996 Research (1-9 sch) and CMSS 6998 Dissertation Research (1-9 sch) are graded with an S or U, and may be repeated. Finally, students must enroll in CMSS 6999 Dissertation Defense (3-9 sch) during their last semester (see below).

CMSS 6999 Dissertation Defense (3-9 sch) is taken as Credit/No Credit.

Final Dissertation Defense

Each student must pass a final dissertation defense examination during the last semester before graduation, to be administered by the student's graduate advisory committee. The exam will cover topics related to:

1. all graduate coursework undertaken for the CMSS program,
2. the student's dissertation research area, and
3. broad concepts of system science, requiring familiarity with the literature and appropriate professional societies.

The student is responsible for scheduling the defense in consultation with his or her graduate committee. A student who fails the defense may repeat it once, but only after an interval of four months or more. If a student fails the second defense, the student will be terminated from the program. Students must enroll in the course CMSS 6999 Dissertation Defense (3-9 sch) during the semester in which they are planning to take the dissertation defense and/or graduate.

Dissertation Format and Style

The dissertation must be prepared in a standard format and style prescribed by the advisory committee. Guidance can be found in the CMSS Student Handbook. For more information about dissertation formatting guidelines, consult the College of Graduate Studies.

Upon approval by the student's graduate advisory committee, a copy of the dissertation will be submitted to the College of Graduate Studies. For more information, see the Doctoral Student Handbook available from the College of Graduate Studies. See also “Requirements for Doctoral Programs” in the general section of this catalog.

Courses

CMSS 5392 Thesis I: Thesis Proposal

3 Semester Credit Hours (3 Lecture Hours)

Thesis students must submit a completed proposal for their thesis project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for CMSS 5393 Thesis Research. Open only to M.S. Thesis Degree Candidates in CMSS.

CMSS 5393 Thesis II: Thesis Research

3 Semester Credit Hours (3 Lecture Hours)

Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll.

Prerequisite: CMSS 5392.
CMSS 5394  Thesis III: Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
Completion of the final draft of the thesis, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll.
Prerequisite: CMSS 5393.

CMSS 5596  Directed Independent Study
1-5 Semester Credit Hours
Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the CMSS M.S. degree.

CMSS 5940  Thesis Project Research
1-9 Semester Credit Hours
Research related to the CMSS M.S. thesis project. Open only to M.S. students in CMSS with consent of the graduate advisor. Up to six hours may count as credit toward regular graded (non-research, non-variable credit) elective coursework for M.S. degree requirement in Coastal and Marine System Science.

CMSS 6303  Natural Systems Analysis
3 Semester Credit Hours (3 Lecture Hours)
Statistical analysis for data collected in several variables. Topics include sampling from multivariate normal distribution, multivariate analysis of variance, discriminant analysis, principle components, and factor analysis.
Prerequisite: MATH 6315.

CMSS 6305  Natural Systems Modeling
3 Semester Credit Hours (3 Lecture Hours)
Modeling and analysis of deterministic and stochastic dynamical systems, including investigation of model behavior and stability. Theory will be applied to research natural environmental and biological systems such as multi-species systems, carbon circulation in the biosphere, Nutrients-Phytoplankton-Zooplankton models, etc.
Prerequisite: MATH 6315 and 6316.

CMSS 6307  Coastal and Marine Systems
3 Semester Credit Hours (3 Lecture Hours)
Description of coastal and oceanic ecosystems to provide an overview of the fundamental concepts of the abiotic and biotic components, physical-chemical processes, and interactions with environmental and human systems.

CMSS 6308  Coastal Geoenvironments and Change
3 Semester Credit Hours (3 Lecture Hours)
Investigations of the origin, character, and processes of coastal geoenvironments with an emphasis on tracking historical and projecting future changes, including examination of the interactions of geological and biological processes and impacts of human activities on coastal depositional systems.

CMSS 6310  Fundamentals of Remote Sensing
3 Semester Credit Hours (3 Lecture Hours)
Fundamental theory of satellite/airborne remote sensing techniques, sensor performance and calibration, and the scientific applications for land, ocean and atmosphere observations. Topics include physical principles of remote sensing, radiometry, sensors and sensor technology from infrared to microwave sensing, and scientific applications for land, ocean and atmosphere observations. Cross listed with ESCI 6310.

CMSS 6312  Communicating Science Seminar
3 Semester Credit Hours (3 Lecture Hours)
Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.

CMSS 6323  Experimental Design
3 Semester Credit Hours (3 Lecture Hours)
Fundamental concepts of mathematical ecology and the design and analysis of environmental experiments. Students Learn SAS programming and procedures to compute ecological metrics, data management techniques, exploratory analysis, power, sample size, checking assumptions, and analysis of variance models to compute a priori and post hoc hypothesis tests.
Prerequisite: MATH 6315.

CMSS 6327  Physical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Succinct review of basic concepts of physical oceanography followed by general presentations and discussions in three selected areas: global ocean circulation, circulation along the Gulf of Mexico continental shelf, and ocean-atmosphere interaction and impacts on climate. A significant portion of the class is based on student guided reading assignments.

CMSS 6328  Coastal Ocean using RMT SNS
3 Semester Credit Hours (3 Lecture Hours)

CMSS 6333  Paleo Systems
3 Semester Credit Hours (3 Lecture Hours)
Study of the interrelationships of ancient organisms and their environment through interpretation of the fossil record, analog communities, and oceanographic data, such as carbon and oxygen isotopes. Theories and methods of reconstructing terrestrial, marine and freshwater biotic communities and environments. Review of classic paleoecological and paleoceanographic studies as well as current research.
Prerequisite: BIOL 3428 and GEOL 1401 and (ESCI 3351 or GEOL 4316).

CMSS 6334  Geological Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Integrated examination of the geology and geochemistry of the marine environment. Evolution of ocean basins, continental margins and plate boundaries; geology of oceanic crust; controls on the types, origin, and distribution of marine sediments; and introduction to paleoceanography.
Prerequisite: ESCI 3351 or GEOL 4316.

CMSS 6340  Ocean Resources
3 Semester Credit Hours (3 Lecture Hours)

CMSS 6352  Environmental Forecasting
3 Semester Credit Hours (3 Lecture Hours)
Statistical techniques (classic and Bayesian) and new artificial intelligence based techniques, such as neural networks, for the analysis of environmental systems with large datasets.
Prerequisite: CMSS 6305.

CMSS 6357  Global Geochemical Cycles and Change
3 Semester Credit Hours (3 Lecture Hours)
Integrated examination of global-scale geochemical cycles operating within and between the four components of the Earth system (atmosphere, hydrosphere, biosphere, and solid Earth) and their role in the evolution of our planet.
Prerequisite: CHEM 1411, 1412 and 3411.
Directed Independent Study may be counted towards the Ph.D. degree. Study in areas of current interest. A total of six semester hours of CMSS 6596 1-5 Semester Credit Hours (1-5 Lecture Hours) with full credit in another area of environmental systems.

An advanced study of an environmental systems topic. May be repeated 1-5 Semester Credit Hours (1-5 Lecture Hours) for a total of 15 semester hours.

CMSS 6598 Dissertation Defense 3-9 Semester Credit Hours Designated to the final defense of a dissertation. Course is graded with an S or U, and may be repeated.

Marine Biology, PhD Program Description
The Marine Biology Program is designed for students with an interest in one or more of the subdisciplines of marine biology and who wish to pursue careers in higher education, government, or private industry. This degree program combines the strength of a diverse, internationally recognized faculty with high scholarly productivity and extramural funding. Additionally, Texas A&M University – Corpus Christi is located on the Gulf of Mexico, facilitating hands-on learning and research. Students can choose from a variety of classroom and field learning experiences and form committees with any participating faculty.

The Marine Biology program offers the Master of Science and the Doctor of Philosophy degrees in Marine Biology. A personalized graduate advisory committee guides each student through the conception, design, construction, and execution of a marine biology-based inquiry.

Student Learning Outcomes
As part of their progression through the Marine Biology Program, Doctor of Philosophy students will:

- Gain an in-depth of knowledge of essential and emerging concepts in the field of marine biology.
- Perform scholarly hypothesis-driven research grounded in marine biological principles and concepts.
• Demonstrate advanced communication skills through either presentation of research results at professional scientific meetings and/or through peer-reviewed publication.
• Develop a skill set and research record such that they can secure employment in academia, state/federal agencies, private companies, or non-governmental organizations.

For Additional Information
Website: www.marinebiology.tamucc.edu (http://www.marinebiology.tamucc.edu)

Campus Address:
Tidal Hall, Room 309
Phone: (361) 825-2754

Mailing Address:
Marine Biology Program, Tidal Hall 309
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412

Admission Requirements
Those seeking admission to the Marine Biology Program should apply through the Office of Recruitment and Admissions. In addition to the documents required by that office, applicants must submit an essay of no more than 1,000 words describing their educational and career goals, and interests as they relate to the faculty in the Marine Biology Program; a list of names of faculty members contacted; three letters of recommendation from people familiar with their potential for graduate studies; transcripts of all previous undergraduate/graduate work; Graduate Record Examination (GRE) scores that are not more than 5 years old; and a résumé. Additional requirements exist for international students, including TOEFL or IELTS scores from ETS taken within the last two years for students from countries where English is not the native language, and a course by course foreign transcript evaluation through an approved service (refer to the Admission section of this catalog).
All relevant supplemental materials (such as publications or other documents that include information about relevant experiences) that are submitted with the application will be considered. Persons seeking admission to the Ph.D. Program in Marine Biology should first contact the program faculty and identify a faculty member who will serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Completed applications must be received by the CGS by the specified priority deadlines:

• Fall Semester - December 1
• Spring Semester - June 1

Incomplete applications are not considered. The applicant will be notified of acceptance or rejection by letter.

Teaching assistantships, graduate research assistantships, and fellowships may be available to admitted degree-seeking students who maintain full-time graduate student status (9 hours/fall and spring semester, and 3 hours/summer). The completed Teaching Assistant Application (https://gradcollege.tamucc.edu/funding/index.html) and all other materials requested for evaluation should be submitted to the office indicated on that form. For full consideration, the deadline for submitting applications is December 1 for the following academic year. A limited number of fellowships are available, and faculty members conducting funded research projects often hire qualified graduate students as Research Assistants. Students will need to contact faculty members in their field of interest for information on these opportunities.

Academic Preparation
Students entering the Marine Biology Program are expected to have a strong background in biological and physical sciences, with competencies equivalent to those required of Texas A&M University-Corpus Christi undergraduate biology majors (see the biology section of the undergraduate catalog). Therefore, a student who lacks adequate academic preparation in a particular subject area, but who is otherwise well-qualified to enter the graduate program, may be required to complete appropriate undergraduate course work in addition to that specified for the graduate degree. Such courses (4000-sequence or lower) are regarded as foundation or leveling work and do not count as credit towards the total required for completion of the graduate degree.

Program Requirements

Advising and the Graduate Advisory Committee
After being accepted into the MARB program and enrolling, the most important first step is forming the graduate advisory committee (GAC). Students should form a graduate advisory committee with the approval of their advisor by the end of their second long semester in the MARB program to help guide them through their degree program. Students are strongly encouraged to meet with their committee at a minimum of once per year to seek continual guidance on their research program.

Composition and size of the committee should reflect the scope of the intended graduate studies and should be developed with substantial input from the student's advisor(s). The advisor(s) will serve as chair(s) of the committee. The majority of the committee members must be members of the Marine Biology Graduate Faculty. Recognized scholars who are not a member of the TAMU-CC graduate faculty may serve on a student's committee by submitting a letter of request from the advisor, through the TAMU-CC Marine Biology Program Coordinator, with the individual’s resume attached as well as a completed "Form 2 (http://gradschool.tamucc.edu/forms/Canales/Form2.doc) from CGS (Graduate Faculty Status Application). The scholar may serve upon approval of the TAMU-CC CGS. Only one CGS appointed scholar may be counted toward the minimum committee member composition. For Doctoral (Ph.D.) in Marine Biology degrees, the committee shall consist of no fewer than four members, three of which must belong to the MARB Graduate Faculty, including the advisor(s). The Chair (and/or Co-Chair) must be a member of the MARB Graduate Faculty.

Upon submitting a degree plan for Ph.D. students, CGS will appoint a Graduate Faculty Representative (GFR) to the committee. The role of this appointee is to serve as an impartial member of the committee to ensure the integrity of University standards as they apply to the Ph.D. process. The GFR attends both the dissertation proposal defense and the final defense/oral examination.

Enrollment Requirements
All students are required to maintain continuous registration until completion of all requirements for graduation unless a specific leave of absence is granted (in writing) by the department. Students funded through scholarships, fellowships and assistantships are required to maintain a minimum of 9 hours/fall and spring semester, and 3 hours/summer. To continue to maintain the proper number of hours after
completed all formal coursework on the degree plan, a student may register for MARB 6940 Dissertation Project Research (1-9 sch).

Coursework and Research

Students must demonstrate to the GAC that the selection of classes or research projects produces a coherent course of study focused on the student's particular area of emphasis. Depending on the emphasis area, elective and specialized coursework selections may be chosen from biology, biomedical sciences, chemistry, coastal and marine system science, computer science, environmental science, geographic information science, geology, fisheries and mariculture, mathematics, or other course offerings as stipulated and approved by the GAC. Students accepted to the Marine Biology PhD program without an MS degree in an appropriate discipline are required to take more semester hours of credit than students accepted with such a degree.

1. Specialized and Elective Coursework
   The program specifies the minimum number of semester credit hours (SCH) that must be earned from regular, graded (non-research, non-variable credit) coursework: for students with only a bachelor's degree, 41 of 96 total hours; and for PhD students with an appropriate master's degree, 19 of 64 total hours. Classes or research projects designated as part of the specialized coursework requirement must receive the approval of a student's GAC.

2. Research Coursework
   Three courses form the required research component of the degree for PhD students: MARB 6392 Dissertation Proposal (3 sch), MARB 6393 Dissertation Research (3 sch), MARB 6394 Dissertation Submission (3 sch). PhD students should take MARB 6940 Dissertation Project Research (1-9 sch) to fulfill the proper number of semester course hours; this course is graded satisfactory/unsatisfactory and may be repeated. Students must enroll in MARB 6394 Dissertation Submission (3 sch) during their last semester when their dissertations will be completed.

**PhD Students Admitted with Only a Bachelor’s Degree**

Students accepted to the Marine Biology PhD Program with only a bachelor's degree (i.e., without an MS degree in an appropriate discipline) must complete a minimum of 96 semester hours of coursework and research.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARB 6312</td>
<td>Communicating Science Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6340</td>
<td>Marine Organisms and Processes</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6341</td>
<td>Evolution and Genomics of Marine Organisms</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6392</td>
<td>Dissertation Proposal</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6393</td>
<td>Dissertation Research</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6394</td>
<td>Dissertation Submission</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6940</td>
<td>Dissertation Project Research (taken to a total of 46 sem. hrs.)</td>
<td>46</td>
</tr>
</tbody>
</table>

Select one or both of the following:
- CMSS 6303 Natural Systems Analysis
- CMSS 6323 Experimental Design

**Total Hours: 96-99**

Doctoral Candidacy and the Comprehensive/Qualifying Examination

To be admitted to candidacy for the MARB Ph.D. degree a student must have a cumulative GPA and a degree plan GPA of at least 3.0, satisfy the residence requirement (completion of 9 credit hours in two consecutive long semesters), and pass the qualifying examination. Formal Comprehensive/Qualifying examinations (often referred to as “preliminary exams”) for the Ph.D. may be given by the student's GAC if the student is within 6 hours of completing formal degree plan coursework (i.e., except MARB 6940 Dissertation Project Research (1-9 sch)) but must be given before the end of the semester following completion of regular coursework on the degree plan, no later than the end of the 4th (for students with M.S.) or 6th (for students with B.S.) long semester in the program. An approved dissertation proposal must be on file prior to taking the qualifying exam. Students and/or committee chair should consult with the designated Academic Advisor in the College of Graduate Studies, to ensure that the proposal has been filed. A student must be admitted to degree candidacy at least 1 year before the date of the final dissertation defense/oral examination. CGS will not authorize a final dissertation defense/oral examination for any doctoral student who has not been admitted to candidacy.

Qualifying exams will cover all areas within the scope of the student's doctoral program, and will involve written exams from each GAC member, followed by an oral exam administered by the committee as a whole. Committee members may participate remotely if necessary, but must be present for the entire oral exam. Typically, a student will have (at most) a single day to complete the written questions from each committee member.

Each committee member will provide an evaluation of the student’s performance on the written exam. In order to proceed to the oral exam, a student must pass the written exam, as determined by the committee. Individuals unable to pass the written examination(s) may be permitted to retake the exam when sufficient time has passed to allow students to address inadequacies emerging from the first examination.

Upon completion of the oral exam, the GAC members will then determine one final outcome (“Pass” or “Fail”). Two or more dissenting votes in the qualifying exam constitute “Fail”. The graduate advisory committee
chairman will report the results of the examination in a form to the CGS signed by all committee members. The form (Form "B") is available at: http://gradschool.tamucc.edu/forms.html under "Doctoral Program". A copy of the form should also be provided to the designated Academic Advisor in the College of Graduate Studies.

If the student successfully passes the qualifying examination, they will be advanced to candidacy. If a student fails the qualifying exams, the student may be dropped from the program OR the committee may recommend that the student complete a master's degree and be administratively withdrawn from the doctoral program. However, there is no guarantee of acceptance to master's program.

**Format and Style of Dissertation**

The dissertation must follow style requirements established in the Marine Biology Graduate Handbook and must be approved and signed by the members of the student's GAC, and the Dean of Graduate Studies. Guidance can be found in the Marine Biology Student Handbook (www.marinebiology.tamucc.edu (http://www.marinebiology.tamucc.edu)). For more information on formatting requirements, consult the College of Graduate Studies Doctoral Student information page (https://gradschool.tamucc.edu/current_students/doctoral_students.html).

Once the dissertation is completed and approved by the GAC, the results of the research must be presented orally and publicly. The final defense/oral examination usually takes place immediately following the seminar (see below). Graduate students are expected to present their research at a scientific meeting (other than their graduate seminar) prior to graduation.

Upon approval by a student's GAC, a copy of the dissertation will be sent to the Dean of Graduate Studies. At the time of successful completion of the final defense/oral examination, committee members will sign the dissertation and return it to the Dean of Graduate Studies for final approval and signature. See also "Requirements for Doctoral Programs" in the general section of this catalog.

**Final Oral Defense Examination**

Each student must pass a final oral defense examination during the last semester before graduation. The student’s GAC administers this examination which covers topics related to:

1. all graduate coursework undertaken for the Marine Biology program,
2. the student’s specific research area, and
3. broad concepts of general and marine biology including familiarity with the literature and appropriate professional societies.

The student is responsible for scheduling the defense with the faculty involved. Doctoral students must enroll in the course MARB 6394 Dissertation Submission (3 sch) during the semester in which they are planning to defend their dissertation and/or graduate. A student who fails the defense may repeat it once, but only after an interval of four months or more, and will be required to re-enroll in MARB 6394 Dissertation Submission (3 sch). If a student fails the second defense, the student will be terminated from the program.

**Courses**

**MARB 689  Special Topics**

4 Semester Credit Hours (3 Lecture Hours)
MARB 6312 Communicating Science Seminar
3 Semester Credit Hours (3 Lecture Hours)
Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.

MARB 6314 Aquatic Animal Nutrition
3 Semester Credit Hours (3 Lecture Hours)
The study of current concepts in aquatic animal nutrition including nutrient sources and requirements, deficiency effects, ingestive/digestive/metabolic processes, formulation and processing of feeds, and practical feeding considerations for selected aquatic species.

MARB 6327 Marine Restoration Ecology
3 Semester Credit Hours (3 Lecture Hours)
Overview of the rapidly expanding practice of restoring degraded marine, estuarine, and coastal ecosystems. Teaching methods will include lectures, discussion, paper critiques, field visits, and restoration plans. Course will explore ecological theory as it applies to restoration, restoration planning and implementation strategies, and controversies surrounding the practice of restoration.

MARB 6333 Marine Benthic Ecology
3 Semester Credit Hours (3 Lecture Hours)
The ecology of benthic assemblages with emphasis on species and habitats below diver depths. Micro to mesoscale spatial patterns, including bathymetric distribution, abundance and size-structure, diversity gradients, energetics and feeding strategies, and zoogeography of the benthos will be covered. Hydrothermal vents, cold seeps and sea mount fauna will receive special attention.

MARB 6335 Aquatic Microbiology
3 Semester Credit Hours (3 Lecture Hours)
Types and distribution of microorganisms in aquatic environments. Interactions with other organisms. Role in nutrient cycling, degradation of organic substances, pollution, water purification.
Prerequisite: BIOL 2420.

MARB 6340 Marine Organisms and Processes
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the biology of major plant and animal groups in the ocean. Students will also learn about important physical and chemical features of the oceans, and how these interact with marine life to regulate marine ecosystem function.

MARB 6341 Evolution and Genomics of Marine Organisms
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the evolutionary history of life in the ocean. Students will also learn about modern evolutionary theory, processes of speciation and processes which create diversity and adaptive capacity within species. Finally, the course will touch on functional genetics and the use of modern molecular techniques to understand organismal evolution and function.

MARB 6342 Genomics, Proteomics and Bioinformatics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to integrative biological study using genome-wide approaches and bioinformatics. The "-omics" technologies (Genomics, Proteomics, Metabolomics, etc.) will be surveyed for current and potential contributions to understanding biological function at molecular, cellular, organismal and ecosystem levels. Offered in Fall semester of odd-years only. Cross listed with BIOL 5340.

MARB 6343 Oceans and Human Health
3 Semester Credit Hours (3 Lecture Hours)
Oceans are increasingly recognized for their role in the health of the human population, both as a source of waterborne disease and a source of new bioactive (medicinal) agents. Indeed, healthy oceans are essential to the habitability of our planet – for humans and all other forms of life. Students will explore links between oceans, pollution, human well-being, ecosystem services, resource management, and the science and legislation governing the enforcement of water quality standards. This multidisciplinary subject will be addressed using a combination of lecture and discussion of primary literature. Offered in Fall semester of even-years only.

MARB 6353 Down the River: Ecology of Gulf Coast Fishes
3 Semester Credit Hours (3 Lecture Hours)
This course covers aspects of ecology and biogeography of riverine and estuarine fishes while exposing students to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike.
Co-requisite: SMTE 0091.

MARB 6362 Global Change and Its Impact on Aquatic Ecosystems
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the effects of climatic and anthropogenic change on aquatic ecosystem structure and function. Includes readings from the current literature and development of a research proposal. Cross-listed with CMSS 6362.

MARB 6363 Geomicrobiology
3 Semester Credit Hours (3 Lecture Hours)
An exploration of the interface between geological and biological processes focused on the mutual effects of microorganisms and Earth's chemistry. Topics include biominerlization, origin and evolution of life, microbial weathering and rock formation, and influences on environmental problems.

MARB 6371 Evolutionary Genetics
3 Semester Credit Hours (3 Lecture Hours)
An advanced introduction to evolutionary processes and their genetic basis, focusing on theoretical and experimental approaches to the study of population genetics, phylogeography, coalescence theory, evolutionary ecology, and molecular evolution.
Prerequisite: BIOL 2416.

MARB 6373 Marine Biodiversity and Conservation Science
3 Semester Credit Hours (3 Lecture Hours)
Biodiversity, including genetic diversity of individual populations to ecosystem diversity, will be addressed, with focus on the marine realm. Methods for assessing and quantifying diversity will be included. Threats to biodiversity, including resource extraction, invasive species, habitat alteration, global warming and ocean acidification, will be covered, as will techniques for recovering and restoring damaged ecosystems. Marine ecosystem management will be discussed, including marine protected areas, and state, federal and international fisheries and resource management issues.
MARB 6392. Dissertation Proposal. 3 Semester Credit Hours.
Ph.D. students must submit a completed proposal for their dissertation project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for MARB 6393 - Dissertation Research. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

MARB 6393. Dissertation Research. 3 Semester Credit Hours.
Implementation of the Dissertation Proposal, and the production of a rough draft of the dissertation submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

Prerequisite: MARB 6392.

MARB 6394. Dissertation Submission. 3 Semester Credit Hours.
Completion of the final draft of the dissertation, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

Prerequisite: MARB 6392 and (MARB 6393 or 6393*).

* May be taken concurrently.

MARB 6408. Microbial Ecology. 4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours).
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.

Prerequisite: SMTE 0092.

MARB 6428. Fisheries Ecology. 4 Semester Credit Hours (4 Lecture Hours).
FISHERIES ECOLOGY Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project. The laboratory will emphasize practical sampling design and data interpretation. SMTE 0091 is a co-requisite for this course. Documented completion of this safety training is required early in the semester for continued participation in this course.

MARB 6430. Marine Plankton. 4 Semester Credit Hours (4 Lecture Hours).
Investigation of the systematics, distribution and ecology of marine plankton. Cross listed with BIOL 5430.

Co-requisite: SMTE 0091.

MARB 6431. Physiology. 4 Semester Credit Hours (4 Lecture Hours).
Study of the major groups of freshwater and marine algae; morphology, ecology, systematics, life cycles and physiology. Laboratories emphasize collection, identification and culturing techniques.

Co-requisite: SMTE 0092.

MARB 6436. Marine Ecology. 4 Semester Credit Hours (4 Lecture Hours).
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.

Prerequisite: BIOL 3428.

Co-requisite: SMTE 0091.

MARB 6452. Ecology and Evolution of Fishes. 4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours).
This course covers aspects of fish ecology from individual, population, community, and ecosystem levels. We discuss the role of the environment on fish physiology and behavior, food-web dynamics, community assembly and diversity, ecosystem interactions, and anthropogenic impacts on fishes with a focus on conservation.

Prerequisite: SMTE 0091.

MARB 6590. Special Topics. 5 Semester Credit Hours (5 Lecture Hours).
An advanced study of a biological topic. May be repeated with full credit in another area of marine biology.

Prerequisites: SMTE 0091*, 0092* or 0093*.

* May be taken concurrently.

MARB 6596. Directed Independent Study. 1-5 Semester Credit Hours (1-5 Lecture Hours).
Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the M.S. or Ph.D. degree.

MARB 6940. Dissertation Project Research. 1-9 Semester Credit Hours.
Research related to the dissertation project. Open only to Ph.D. students in Marine Biology with consent of the graduate advisor. Does not count as credit toward regular graded (non-research, non-variable credit) coursework for Ph.D. degree requirement in Marine Biology.

Doctoral Degree Programs - School of Engineering and Computer Sciences

• Geospatial Computer Science, PhD (p. 204)

Geospatial Computer Science, PhD Program Description

The Geospatial Computer Science (GSCS) doctoral program is an interdisciplinary program intended to train geospatially minded computer science scholars into accomplished researchers able to make significant contributions in geospatial computing. Students learn important fundamental theory in computation and geospatial science and apply it towards cutting-edge research in areas such as those listed below. The GSCS program is a unique combination of computer science and geospatial science able to position graduates as leaders in the field of geospatial computer science.

The Geospatial Computer Science Ph.D. program will:

• Develop students into experts in geospatial computer science.
• Train students to conduct and publish new research in geospatial computer science, including such topics as big data analytics for geocomputation, autonomous systems, remote sensing, structure
from motion photogrammetry, machine learning-driven geospatial knowledge discovery, mobile computing for location-based services, and high-performance computing for spatial optimization.

- Produce researchers who will be able to pursue careers in higher education, government, or industry related to or affected by geospatial computer science.
- Educate students in the collecting, processing, analyzing, and visualizing of geospatial data, as well as the utilization of geospatial methods and data for developing new technologies.
- Provide students with a rigorous preparation to use computer science theoretical and applied techniques to pursue research and scholarship that will advance the state of knowledge in geospatial computer science.

**Student Learning Outcomes**

The program's student learning outcomes are for students to:

- Produce innovative research that advances theory or methodology in geospatial computing science.
- Participate at academic conferences and publish in peer-reviewed journals.
- Find employment in research departments of public and private organizations, in major academic institutions, and in industry.
- Advance the science of computing to create new algorithms and applications for geospatial challenges.
- Acquire the computer science and geospatial analysis skills necessary to advance the theory and methodology of geospatial computing science.
- Develop the professional skills necessary to present research outcomes orally to a professional or general audience as well as in writing for peer reviewed journals and conference proceedings.

**For Additional Information**

Website: http://gradschool.tamucc.edu/degrees/science/geo_comp_sci.html

**Campus Address:**
Center for Instruction, Room 301
Phone: (361) 825-2474

**Mailing Address:**
Geospatial Computer Science Program, Unit 5825
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5825

**Admission Requirements**

1. Persons seeking admission to the GSCS program should first contact the program to identify a faculty member willing to serve as their graduate advisor. Applicants will not be admitted to the program without a graduate faculty advisor.

2. In addition to meeting all University requirements, students seeking admission to the graduate degree program in Geospatial Computer Science must submit the following to the Office of Recruitment and Admissions:
   - An application and application fee,
   - Transcripts from regionally accredited institutions (international students will be required to submit relevant international transcripts),
   - An essay (500-1000 words) discussing why you are seeking admission to the program and what your research plans are,
   - A curriculum vitae,
   - GRE scores (within five years of the date of application), and
   - International students must submit TOEFL or IELTS scores and additional documents to the Office of Recruitment and Admissions. http://gradschool.tamucc.edu/international.htm

3. A student entering the program is expected to have adequate preparation in computer science, geographic information science, and mathematics. For computer science, this preparation must include successful completion of coursework in a high-level programming language. For geospatial science, students must have successfully completed course work in geospatial data analysis and visualization. In mathematics, students must have successfully completed course work in calculus plus one additional junior level or higher mathematics course such as linear algebra, numerical analysis, or applied probability and statistics.

Students who have not successfully completed the above courses may be required to take leveling courses in any missing subjects before being formally admitted into the program. Leveling coursework does not count towards the total credit hours required for the degree. All leveling courses must be completed with a grade of "B" or better. While taking leveling courses, a student can take regular courses that can be counted towards the degree once admitted into the program formally. However, the total credit hours of such courses must not exceed nine hours.

**Program Requirements**

There are two paths for students in the PhD in Geospatial Computer Science degree program, those coming in with

1. a bachelor's degree in a related field, and
2. a master's degree in a related field.

Students entering the program with a bachelor's degree are required to take a minimum of 75 semester credit hours (SCH). Of these 75 SCH, students must take the GSCS core courses (12 SCH), 3 SCH of Graduate Seminar, at least 27 hours of Electives, and at least 30 hours of research and dissertation credits.

Students entering the program with a master's degree are required to take a minimum of 57 credit hours beyond the master's degree. Students are required to take the GSCS core courses (12 SCH). At least 9 hours of elective courses must also be taken at TAMUCC. Three credit hours of Graduate Seminar and at least 30 hours of dissertation and research must also be part of the required 57 hours.

Additional courses may be assigned depending on the student's background.

Students must file an approved degree plan by the end of their second semester in the program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 6334</td>
<td>Design and Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>COSC 6380</td>
<td>Data Analytics</td>
<td>3</td>
</tr>
</tbody>
</table>
Total Hours 54-72

GSCS 6321  Geospatial Data Structures  3
GSCS 6331  Advanced Geospatial Computing  3

Required Courses

GSCS 6302  Graduate Seminar  3
Select 30 hours of research and defense from the following:
- GSCS 6996  Research
- GSCS 6998  Dissertation Research
- GSCS 6999  Dissertation Defense (minimum of 3 sem. hours)

Elective Courses

Select 9-27 hours of electives from the following:  9-27

- COSC 6327  Introduction to Computer Graphics
- COSC 6328  Advanced Computer Graphics
- COSC 6334  Design and Analysis of Algorithms
- COSC 6336  Database Management Systems
- COSC 6339  Deep Learning
- COSC 6340  Human-Computer Interaction
- COSC 6350  Advanced Topics in DBMS
- COSC 6351  Advanced Computer Architecture
- COSC 6352  Advanced Operating Systems
- COSC 6353  Compiler Design and Construction
- COSC 6354  Artificial Intelligence
- COSC 6355  Data Communications and Networking
- COSC 6356  Theory of Computation
- COSC 6357  Wireless Sensor Networks
- COSC 6360  Parallel Computing
- COSC 6361  Parallel Algorithms
- COSC 6362  Mobile Software Development
- COSC 6370  Advanced Software Engineering
- COSC 6374  Computer Forensics
- COSC 6375  Information Assurance
- COSC 6376  Network Security
- COSC 6377  Applied Cryptography
- COSC 6379  Advanced Information Assurance
- COSC 6590  Selected Topics
- GSCS 6329  Scientific Visualization
- GSCS 6344  Ubiquitous Positioning
- GSCS 6390  Special Topics
- COSC 6393  Research Methods in Computer Science
- GSEN 6330  Spatial Systems Science
- GSEN 6355  Geospatial Programming Techniques
- GSEN 6365  Spatial Database Design
- GSEN 6381  Cadastral Information Systems Design
- GSEN 6383  Advanced Geospatial Analytics
- GSEN 6384  Geospatial Visualization Design
- GSEN 6385  Photogrammetric Engineering and Lidar Scanning
- GSEN 6386  Remote Sensing and Image Analysis
- GSEN 6390  Advanced Topics
- MATH 6344  Spatial Statistics

Courses

Computer Science Courses

COSC 5300  Introductory Topics in Computer Science
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the leveling topics in computer science. This course serves the needs of certain topics students lack for pursuing a Master's degree in computer science. Grade assigned will be "credit" (CR) or "no credit" (NC).

COSC 5313  Foundations of Computer Organization and Architecture
3 Semester Credit Hours (3 Lecture Hours)
A study of internal computer concepts with respect to the functioning of the hardware subsystems and their roles in the computing process. An in-depth study of machine and assembly language. (Does not count toward total hours required for MS in Computer Science.)

COSC 5320  Design and Implementation of Computerized Instructional Systems
3 Semester Credit Hours (3 Lecture Hours)
Provides a broad introduction to the development of computer-based learning environments. Covers the theory and practice of using the computer both in the classroom and individually for learning. Covers a wide range of possibilities from multimedia presentation of material to constructive environments and computer-based instructional systems.

COSC 5321  Data Structures
3 Semester Credit Hours (3 Lecture Hours)
A study of the logical structures used for the organization, storage and retrieval of data. These structures are addressed from both memory-resident and file-resident points of view. Algorithms for the creation, searching, and manipulation of standard data structures used in computing are stressed. (Does not count toward total hours required for MS in Computer Science.)

Co-requisite: COSC 5312, MATH 2305.

COSC 5324  Digital Image Processing
3 Semester Credit Hours (3 Lecture Hours)

COSC 5326  Computer Vision
3 Semester Credit Hours (3 Lecture Hours)
Prerequisite: COSC 5324.

COSC 5327  Intro to Computer Graphics
3 Semester Credit Hours (3 Lecture Hours)
INTRODUCTION TO COMPUTER GRAPHICS This graduate course provides students with a foundation in basic principles and techniques for computer graphics on modern graphics hardware. Students will gain experience in interactive computer graphics using the OpenGL API. Topics include: graphics hardware, rendering, perspective, lighting, and geometry.
COSC 5328 ADVANCED COMPUTER GRAPHICS
3 Semester Credit Hours (3 Lecture Hours)
This course covers advanced computer graphics techniques. Students will be introduced to state-of-the-art methods in computer graphics. This course will focus on techniques for real-time rendering and animation.
Prerequisite: COSC 4328 or 5327.

COSC 5331 Foundations of Computer System Software
3 Semester Credit Hours (3 Lecture Hours)
Introduction to operating systems concepts, principles, and design. Topics include: processes and threads, CPU scheduling, mutual exclusion and synchronization, deadlock, memory management, file systems, security and protection, networking, and distributed systems. Selected existing operating systems are discussed, compared, and contrasted.
(Does not count toward total hours required for MS in computer science.)
Prerequisite: COSC 5313.
Co-requisite: COSC 5321.

COSC 5334 THE DESIGN AND ANALYSIS OF ALGORITHMS
3 Semester Credit Hours (3 Lecture Hours)
An advanced course that concentrates on the design and analysis of algorithms used to solve a variety of problems. The methods of design covered include such topics as: divide-and-conquer, the greedy method, dynamic programming, search and traversal techniques, and backtracking.
Prerequisite: COSC 5321, MATH 2413 and 2305.

COSC 5336 DATABASE MANAGEMENT SYSTEMS
3 Semester Credit Hours (3 Lecture Hours)
A study of contemporary database management concepts. Performance (indexing, query optimization, update optimization), concurrency, security and recovery issues are discussed. Also includes the study of front-end environments that access the database.
Prerequisite: COSC 5335 and 5321.

COSC 5337 DATA MINING
3 Semester Credit Hours (3 Lecture Hours)

COSC 5340 HUMAN-COMPUTER INTERACTION
3 Semester Credit Hours (3 Lecture Hours)
Graduate-level survey of the field of Human-Computer Interaction (HCI) focusing on design strategies for making software usable by real-world people for doing real-world work. Topics include the role of HCI in the software product life cycle, task analysis of the user’s work, architectures for human-computer dialogues, new and traditional approaches to user interface design, and user interface standards.
Prerequisite: COSC 5331.

COSC 5350 ADVANCED TOPICS IN DBMS
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.
Prerequisite: COSC 5336.

COSC 5351 ADVANCED COMPUTER ARCHITECTURE
3 Semester Credit Hours (3 Lecture Hours)
COMPUTER ARCHITECTURE An overview of computer architecture, which stresses the underlying design principles and the impact of these principles on computer performance. General topics include design methodology, processor design, control design, memory organization, system organization, and parallel processing.
Prerequisite: COSC 5331.

COSC 5352 ADVANCED OPERATING SYSTEMS
3 Semester Credit Hours (3 Lecture Hours)
Introduction to advanced concepts in operating systems and distributed systems. Topics include distributed system architectures, interprocess communication, distributed mutual exclusion, distributed synchronization and deadlock, agreement protocols, distributed scheduling and process management, distributed shared memory, distributed file systems, multiprocessor system architectures and operating systems, recovery and fault tolerance.
Prerequisite: COSC 5331.

COSC 5353 PRINCIPLES OF COMPILER CONSTRUCTION
3 Semester Credit Hours (3 Lecture Hours)
COMPILER DESIGN AND CONSTRUCTION This course introduces the basic concepts and mechanisms traditionally employed in language translation, with emphasis on compilers. Topics include strategies for syntactic and semantic analysis, techniques of code optimization and approaches toward code generation.
Prerequisite: COSC 5330 and MATH 2305.

COSC 5354 ARTIFICIAL INTELLIGENCE
3 Semester Credit Hours (3 Lecture Hours)
Fundamental concepts and techniques for the design of computer-based, intelligent systems. Topics include: a brief history, methods for knowledge representation, heuristic search techniques, programming in LISP or Prolog.
Prerequisite: COSC 5321 and MATH 2305.

COSC 5355 DATA COMMUNICATIONS NETWORKING
3 Semester Credit Hours (3 Lecture Hours)
DATA COMMUNICATION SYSTEMS Areas studied include principles of computer-based communication systems, analysis and design of computer networks, and distributed data processing.
Prerequisite: COSC 5331.

COSC 5356 THEORY OF COMPUTATION
3 Semester Credit Hours (3 Lecture Hours)
THEORETICAL ASPECTS OF COMPUTING An introduction to theoretical foundations of modern computing. Topics include finite state machine concepts, formal grammars, and basic computability concepts.
Prerequisite: COSC 5321 and MATH 2305.

COSC 5357 WIRELESS SENSOR NETWORKS
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course on wireless sensor networks; one of the fastest developing areas in computer science and engineering. The focus of this course is on the design of optimized architectures and protocols for such unique networks. Topics include the design principles of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.

COSC 5360 CONCURRENCE: PARALLEL AND DISTRIBUTED PROCESSING
3 Semester Credit Hours (3 Lecture Hours)
PARALLEL COMPUTING Introduction to the hardware and software issues in parallel computing. Topics include motivation and history, parallel architectures, parallel algorithm design, and parallel performance analysis. Students will be introduced to a variety of parallel computing paradigms including message passing systems and shared memory systems.
Prerequisite: COSC 5331.
COSC 5362 MOBILE SOFTWARE DEVELOPMENT
3 Semester Credit Hours (3 Lecture Hours)
Survey of software development on mobile platforms including both native and cross-platform applications with topics such as: prototyping, programming, testing, debugging, and deploying. Coverage of software life cycle on mobile platforms and how mobile hardware differs from traditional computers. Prerequisite: COSC 5321.

COSC 5370 ADVANCED SOFTWARE ENGINEERING
3 Semester Credit Hours (3 Lecture Hours)
Areas studied include engineering principles and their application to the design, development, testing, and maintenance of large software systems, tools and processes for managing the complexities inherent in creating and maintaining large software systems. Prerequisite: COSC 5321.

COSC 5374 COMPUTER FORENSICS
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the fundamentals of computer forensics and various software tools used in cyber-crime analysis. Students will be introduced to established methodologies for conducting computer forensic investigations, as well as to emerging international standards for computer forensics. Applicable laws and regulations dealing with computer forensic analysis will also be discussed. Prerequisite: COSC 5312.

COSC 5375 INFORMATION ASSURANCE
3 Semester Credit Hours (3 Lecture Hours)
An introduction to information security and assurance. This course covers the basic notions of confidentiality, integrity, availability, authentication models, protection models, secure programming, audit, intrusion detection and response, operational security issues, physical security issues, personnel security, policy formation and enforcement, access controls, information flow, legal and social issues, classification, trust modeling, and risk assessment. Prerequisite: COSC 5312.

COSC 5376 NETWORK SECURITY
3 Semester Credit Hours (3 Lecture Hours)
This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network. Prerequisite: COSC 5375.

COSC 5377 APPLIED CRYPTOGRAPHY
3 Semester Credit Hours (3 Lecture Hours)
This course includes an introduction to cryptographic algorithms and protocols for encrypting information securely, techniques for analyzing vulnerabilities of protocols, approaches to digital signatures and information digests, and implementation approaches for the most significant cryptographic methodologies. Prerequisite: COSC 5312.

COSC 5379 ADVANCED INFORMATION ASSURANCE
3 Semester Credit Hours (3 Lecture Hours)
This course encompasses a broad range of topics involving information security, communications security, network security, risk analysis, operational security, health information privacy, criminal justice digital forensics, homeland security, the human element and social engineering, and applicable national and international laws. An in-depth information assurance capstone project or research paper will be required of each student to satisfy the information assurance graduate option requirements. Prerequisite: COSC 5375.

COSC 5390 Internship
3 Semester Credit Hours
Individual contract agreement involving student, faculty, and cooperating agency (discipline-related business, nonprofit organization, or government agency) to gain practical experience appropriate to computer science in off-campus setting. Grade assigned will be "credit" (CR) or "no credit" (NC).

COSC 5393 RESEARCH METHODS IN COMP SCIEN
3 Semester Credit Hours (3 Lecture Hours)
RESEARCH METHODS IN COMPUTER SCIENCE This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical-reading/writing assignments and class discussions on state-of-the-art research in Computer Science will provide students with major research aspects. Fall, Spring

COSC 5395 GRADUATE PROJECT AND TECHNICAL REPORT
3 Semester Credit Hours
An applied research project in computing from problem definition to implementation in an area of particular interest to the student that relates to the course of study. Prerequisite: COSC 5393 and 5370.

COSC 5396 DIRECTED INDEPENDENT STUDY
1-3 Semester Credit Hours
Study in areas of current interest. (A maximum of six hours may be counted toward the MS degree.) Fall, Spring, Summer.

COSC 5398 Thesis I
3 Semester Credit Hours (3 Lecture Hours)
This course is for Computer Science MS students choosing the thesis option. Upon choosing a thesis advisor, students will register for this course. This course is only credit/no credit. Students will be given a grade of In-Progress until successfully completing their thesis. Prerequisite: COSC 5393.

COSC 5399 Thesis II
3 Semester Credit Hours (3 Lecture Hours)
This course is for Computer Science MS students choosing the thesis option. Students will continually register for this course until successful completion of their thesis. A grade of In-Progress will be assigned until either successful completion or failing to register. If failing to register students will receive a grade of No Credit for all 5399 and 5398 courses. Prerequisite: COSC 5398.

COSC 5590 SELECTED TOPICS
1-5 Semester Credit Hours (1-5 Lecture Hours)
Variable content study of specific areas of computer and information systems. May be repeated for credit when topics vary. Offered on sufficient demand.
COSC 5999 Advanced Research in Computer Science
1-9 Semester Credit Hours (1-9 Lecture Hours)
Advanced work in a specialized area of computer science. Does not count as credit toward a degree in computer science. Course is taken as credit/non-credit.

COSC 6324 Digital Image Processing
3 Semester Credit Hours
This course introduces concepts and techniques for image processing. The objective of this course is to introduce the fundamental techniques and algorithms used for processing and extracting useful information from digital images. The students will learn how to apply the image processing methods to solve real-world problems.

Prerequisite: COSC 6324.

COSC 6326 Computer Vision
3 Semester Credit Hours
This graduate course introduces concepts and techniques for machine vision. Particular emphasis will be placed on methods used for object recognition, machine learning, content-based image retrieval, image matching, 3D vision, tracking and motion analysis.

Prerequisite: COSC 6324.

COSC 6327 Introduction to Computer Graphics
3 Semester Credit Hours
This graduate course provides students with a foundation in basic principles and techniques for computer graphics on modern graphics hardware. Students will gain experience in interactive computer graphics using the OpenGL API. Topics include: graphics hardware, rendering, perspective, lighting, and geometry.

COSC 6328 Advanced Computer Graphics
3 Semester Credit Hours
This course covers advanced computer graphics techniques. Students will be introduced to state-of-the-art methods in computer graphics. This course will focus on techniques for real-time rendering and animation.

Prerequisite: COSC 4328 or 6327.

COSC 6334 Design and Analysis of Algorithms
3 Semester Credit Hours (3 Lecture Hours)
An advanced course that concentrates on the design and analysis of algorithms used to solve a variety of problems. The methods of design covered include such topics as: divide-and-conquer, the greedy method, dynamic programming, search and traversal techniques, and backtracking.

Prerequisite: COSC 5321, MATH 2413 and 2305.

COSC 6336 Database Management Systems
3 Semester Credit Hours (3 Lecture Hours)
A study of contemporary database management concepts. Performance (indexing, query optimization, update optimization), concurrency, security and recovery issues are discussed. Also includes the study of front-end environments that access the database.

Prerequisite: COSC 5321.

COSC 6337 Data Mining
3 Semester Credit Hours
An introduction to fundamental strategies and methodologies for data mining. Topics include data preprocessing, mining frequent data patterns, classification, clustering, and outlier detection.

COSC 6338 Machine Learning
3 Semester Credit Hours (3 Lecture Hours)
Machine learning is a set of techniques that have been successfully used in the past few decades for data analysis, process automation, function optimization, model building, and many others. These techniques have been explored in a diversity of fields such as robotics, self-driving cars, big data, control of autonomous systems, image analysis, object recognition, data mining, business, and financial forecasting, transportation systems, antenna design, medical care systems, and many others. ML is a subdivision of artificial intelligence that gives machines the ability to learn and adapt with different acquired knowledge and experience. In this course, a student will learn about state of the art on machine learning and get to know how they can carry out these evolving learning algorithms. ML algorithms attempt to mimic how the human brain works. We plan to develop many exercises on how these ML algorithms work in practical applications in both industry and basic science. We plan to cover topics such as artificial network networks, fuzzy logic, hybrid systems, search and optimization, classification, clustering and deep learning. Students will gain experiences on some programming tools and a variety of applications of machine learning.

COSC 6339 Deep Learning
3 Semester Credit Hours (3 Lecture Hours)
This course introduces concepts and techniques for deep learning. The objective of this course is to introduce the fundamental theory and application of deep learning. Particular emphasis will be placed on regularization and optimization of deep learning models, Convolutional network, recurrent neural networks, autoencoders and generative models. In addition, the students will learn how to apply the methods to solve real-world problems in several areas including remote sensing, geospatial, and medical applications and develop the insight necessary to use the tools and techniques to solve any new problem.

COSC 6340 Human-Computer Interaction
3 Semester Credit Hours (3 Lecture Hours)
This graduate course introduces concepts and techniques for Human Computer Interaction. Attention will be paid to using non-traditional inputs such as cameras and microphones. Students will learn tools for using these inputs to create interactions with users.

Prerequisite: COSC 5331.

COSC 6350 Advanced Topics in DBMS
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.

Prerequisite: COSC 6336.

COSC 6351 Advanced Computer Architecture
3 Semester Credit Hours
An overview of computer architecture, which stresses the underlying design principles and the impact of these principles on computer performance. General topics include design methodology, processor design, control design, memory organization, system organization, and parallel processing.

Prerequisite: COSC 5331.
COSC 6352 Advanced Operating Systems  
3 Semester Credit Hours (3 Lecture Hours)  
Introduction to advanced concepts in operating systems and distributed systems. Topics include distributed system architectures, interprocess communication, distributed mutual exclusion, distributed synchronization and deadlock, agreement protocols, distributed scheduling and process management, distributed shared memory, distributed file systems, multiprocessor system architectures and operating systems, recovery and fault tolerance.  
Prerequisite: COSC 5331.

COSC 6353 Compiler Design and Construction  
3 Semester Credit Hours  
This course introduces the basic concepts and mechanisms traditionally employed in language translators, with emphasis on compilers. Topics include strategies for syntactic and semantic analysis, techniques of code optimization and approaches toward code generation.  
Prerequisite: MATH 2305.

COSC 6354 Artificial Intelligence  
3 Semester Credit Hours  
Fundamental concepts and techniques for the design of computer-based, intelligent systems. Topics include: a brief history, methods for knowledge representation, heuristic search techniques, programming in LISP or Prolog.  
Prerequisite: COSC 5321 and MATH 2305.

COSC 6355 Data Communications and Networking  
3 Semester Credit Hours (3 Lecture Hours)  
Areas studied include principles of computer-based communication systems, analysis and design of computer networks, and distributed data processing.  
Prerequisite: COSC 5331.

COSC 6356 Theory of Computation  
3 Semester Credit Hours  
An introduction to theoretical foundations of modern computing. Topics include finite state machine concepts, formal grammars, and basic computability concepts.  
Prerequisite: COSC 5321 and MATH 2305.

COSC 6357 Wireless Sensor Networks  
3 Semester Credit Hours  
This is a graduate level course on wireless sensor networks; one of the fastest developing areas in computer science and engineering. The focus of this course is on the design of optimized architectures and protocols for such unique networks. Topics include the design principles of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.

COSC 6360 Parallel Computing  
3 Semester Credit Hours  
Introduction to the hardware and software issues in parallel computing. Topics include motivation and history, parallel architectures, parallel algorithm design, and parallel performance analysis. Students will be introduced to a variety of parallel computing paradigms including message passing systems and shared memory systems.  
Prerequisite: COSC 5331.

COSC 6361 Parallel Algorithms  
3 Semester Credit Hours (3 Lecture Hours)  
Introduces and evaluates important models of parallel and distributed computation. Topics include a selection of parallel algorithms for various models of parallel computation, combinational circuits, parallel prefix computation, divide and conquer, pointer based data structures, linear arrays, meshes and related models, and hypercubes.  
Prerequisite: COSC 5321.

COSC 6362 Mobile Software Development  
3 Semester Credit Hours  
Survey of software development on mobile platforms including both native and cross-platform applications with topics such as: prototyping, programming, testing, debugging, and deploying. Coverage of software life cycle on mobile platforms and how mobile hardware differs from traditional computers.  
Prerequisite: COSC 5321.

COSC 6365 Current Trends in Programming  
3 Semester Credit Hours (3 Lecture Hours)  
This is a survey of current trends in computer programming. The focus of this course is on the development of computer programs utilizing the latest technologies and paradigms. Topics include state-of-the-art in problem solving and software development, programming techniques and approaches, programming languages, development tools and environments, and software deployment methods.  
Prerequisite: COSC 5321.

COSC 6370 Advanced Software Engineering  
3 Semester Credit Hours  
Areas studied include engineering principles and their application to the design, development, testing, and maintenance of large software systems, tools and processes for managing the complexities inherent in creating and maintaining large software systems.  
Prerequisite: COSC 5321.

COSC 6374 Computer Forensics  
3 Semester Credit Hours  
This course will introduce students to the fundamentals of computer forensics and various software tools used in cyber-crime analysis. Students will be introduced to established methodologies for conducting computer forensic investigations, as well as to emerging international standards for computer forensics. Applicable laws and regulations dealing with computer forensic analysis will also be discussed.

COSC 6375 Information Assurance  
3 Semester Credit Hours (3 Lecture Hours)  
An introduction to information security and assurance. This course covers the basic notions of confidentiality, integrity, availability, authentication models, protection models, secure programming, audit, intrusion detection and response, operational security issues, physical security issues, personnel security, policy formation and enforcement, access controls, information flow, legal and social issues, classification, trust modeling, and risk assessment.

COSC 6376 Network Security  
3 Semester Credit Hours  
This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network.  
Prerequisite: COSC 6375.
COSC 6377  Applied Cryptography  
3 Semester Credit Hours  
This course includes an introduction to cryptographic algorithms and protocols for encrypting information securely, techniques for analyzing vulnerabilities of protocols, approaches to digital signatures and information digests, and implementation approaches for the most significant cryptographic methodologies.

COSC 6379  Advanced Information Assurance  
3 Semester Credit Hours  
This course encompasses a broad range of topics involving information security, communications security, network security, risk analysis, operational security, health information privacy, criminal justice digital forensics, homeland security, the human element and social engineering, and applicable national and international laws. An in-depth information assurance capstone project or research paper will be required of each student to satisfy the information assurance graduate option requirements.  
Prerequisite: COSC 6375.

COSC 6380  Data Analytics  
3 Semester Credit Hours (3 Lecture Hours)  
This course will introduce state-of-the-art techniques to process and analyze different types of data, generate insights and knowledge from data, and make data-based decisions and predictions. Real-world examples will be used to familiarize students with the theory and applications. Main topics include data preprocessing, probability theory, tests of hypothesis, and various data analysis techniques (e.g., clustering, classification, prediction/forecasting, etc.) for different types of data including static, time-series, spatial, and spatiotemporal.

COSC 6393  Research Methods in Computer Science  
3 Semester Credit Hours  
This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical-reading/writing assignments and class discussions on state-of-the-art research in Computer Science will provide students with major research aspects. Spring

COSC 6396  Directed Independent Study  
3 Semester Credit Hours  
Study in areas of current interest. (A maximum of six hours may be counted toward the MS degree.) Fall, Spring, Summer.

COSC 6590  Selected Topics  
3 Semester Credit Hours (3 Lecture Hours)  
Variable content study of specific areas of computer and information systems. May be repeated for credit when topics vary. Offered on sufficient demand.

Geospatial Computer Science Courses

GSCS 6102  Graduate Seminar  
1 Semester Credit Hour (1 Lecture Hour)  
Advanced topic study and presentation by students, faculty, or visiting scientists. Meets one hour weekly. Must be taken three times by all GSCS PhD students.

GSCS 6302  Graduate Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
This is a 3-credit course that is intended to help facilitate the development of a student’s dissertation research ideas and to contribute to the student’s professional development as a doctoral level researcher in the field of geospatial computer science. The course focuses on developing professional research skills typically not provided in formal coursework such as methods for novel research, literature review, developing a research prospectus, presenting scientific research, research ethics, peer-review process, and professional society engagement. At the outcome, students will have a better understanding of the research process and a foundation to aid their development as a doctoral student and professional scientific researcher.

GSCS 6321  Geospatial Data Structures  
3 Semester Credit Hours (3 Lecture Hours)  
The representation of spatial data is an important issue in diverse areas including computer graphics, geographic information systems (GIS), robotics, and many others. Choosing an appropriate representation is a key to facilitate operations such as spatial search. This course will focus on representation of point data and object data, which are the important types of spatial data. Various fundamental data structures on spatial data, such as quadtrees, k-d-trees, grid structures, k-d-trees, and R-trees will be explored. The use of these structures to address some important problems will also be covered.

GSCS 6329  Scientific Visualization  
3 Semester Credit Hours (3 Lecture Hours)  
This course presents principles and methods for visualizing data resulting from measurements and calculations in both the physical sciences and the life sciences. The emphasis is on using 2D and 3D computer graphics to garner insight into multi-dimensional data sets for understanding and solving scientific problems. Topics include visualization software and techniques, human vision attributes and limitations, data encoding, data representation, volume rendering, flow visualization, and information visualization.  
Prerequisite: COSC 5327 and GSCS 6321.

GSCS 6331  Advanced Geospatial Computing  
3 Semester Credit Hours (3 Lecture Hours)  
Seminar in reading and critical evaluation of academic literature in the field of and fields relating to geospatial computing. Student will design, implement, and evaluate an advanced, contemporary geospatial computing technology to solve a geospatial problem.

GSCS 6344  Ubiquitous Positioning  
3 Semester Credit Hours (3 Lecture Hours)  
The aim of this course is to introduce the principle of positioning indoors/outdoors using sensors and short-range radio frequency signals in smartphones. These sensors will include a GNSS receiver, an accelerometer, a gyroscope, a magnetometer, a barometer, and a camera, why short-range RF signals will include WiFi and Bluetooth signals. The course will concentrate on various positioning algorithms for fusing sensor measurements and RF signal measurements.  
Prerequisite: GSCS 5321.

GSCS 6390  Special Topics  
3 Semester Credit Hours (3 Lecture Hours)  
Variable content study of specific areas of geospatial computing science. May be repeated for credit when topics vary. Offered on sufficient demand.
GSEN 5383 ADV GEOSPATIAL ANALYSIS DESIGN
3 Semester Credit Hours (3 Lecture Hours)
ADVANCED GEOSPATIAL ANALYSIS AND DESIGN An advanced course that focuses on spatial analysis and modeling in GIS. Topics covered include exploratory analysis of spatial data, network analysis, exploring spatial point patterns, area objects and spatial autocorrelation, spatial interpolation, and spatial regression. New approaches to spatial analysis are also covered.

GSEN 5384 GEOSPATIAL VISUALIZATION DESIGN
3 Semester Credit Hours (3 Lecture Hours)
GEOSPATIAL VISUALIZATION DESIGN Basic elements of thematic cartography, cartographic theory, and cartographic projections. Integration of cartographic principles with GIS visualization. Principles of map design with GIS data.

GSEN 5385 ANALY-DIGITAL PHOTOGRAMMET ENG
3 Semester Credit Hours (3 Lecture Hours)
ANALYTICAL AND DIGITAL PHOTOGRAMMETRIC ENGINEERING A study of the mathematical and geometric models of modern photogrammetry. Covers principles of stereoscopic vision, collinearity, coplanarity, epipolar geometry, ground control densification and extension by analytical aerotriangulation. Explores automation in photogrammetric procedures - digital aerotriangulation, automated data capture.

GSEN 5386 PROBLEMS - REMOTE SENSING ENVIR
3 Semester Credit Hours (3 Lecture Hours)
PROBLEMS-REMOTE SENSING OF THE ENVIRONMENT Advanced problems in photo interpretation, photogrammetry and remote sensing within a GIS. Topics include utilization of expert computer systems, knowledge based environmental modeling, macro languages and spatial modeling languages. Operations and laboratories will cover mathematical operations on raster layers, convolution filtering, neighborhood analysis, principal components, proximity, contiguity and descriptor table manipulation. Final project includes the development of a remote sensing of the environment software program with a graphical user interface.

GSEN 5393 Graduate Creative Project
1-3 Semester Credit Hours
An applied research group project in geospatial surveying engineering from problem definition to implementation in an area provided by faculty in the course of study. Fall, Spring, and Summer.

GSEN 5395 Graduate Research Design
3 Semester Credit Hours (3 Lecture Hours)
Preparatory and developmental research for the Graduate Thesis or creative project resulting in the preliminary design and formal proposal of the graduate project. This thesis or a creative project proposal must be reviewed and approved by the project chairperson to receive credit. A grade of Credit/No Credit will be assigned for the class with the possibility to assign the grade of IP or In Progress. If a grade of IP is assigned, the course must be repeated the following semester(s) until the course is passed. Credit will not be recorded until the Graduate Project Proposal is approved by the Graduate Project Committee Chair. Offered Fall, Spring, and Summer semesters.

GSEN 5698 Graduate Thesis
1-6 Semester Credit Hours
An applied research project in geospatial systems engineering from problem definition to implementation in an area of particular interest to the student that relates to the course of study.
GSEN 6330 Spatial Systems Science  
3 Semester Credit Hours (3 Lecture Hours)  
Introduction and advanced usages of mapping datums, coordinate systems, and accuracy requirements for geographic information systems (GIS). Use of GIS tools to investigate statistical patterns and relationships among maps and geo-databases. Derivation of new maps and analysis based on spatial context, patterns, surface configuration, proximity, connectivity and flows.  
Prerequisite: MATH 6316.

GSEN 6355 Geospatial Programming Techniques  
3 Semester Credit Hours (3 Lecture Hours)  
Course teaches programming techniques in geospatial fields, such as how to automate GIS tasks using Python and other scripting languages. Automation can make your work easier, faster, and more accurate, and knowledge of a scripting language is a highly desired skill in GIS analysts.  
Fall.

GSEN 6356 Programming for Geospatial Data Science  
3 Semester Credit Hours (3 Lecture Hours)  
Python is becoming more and more popular for doing data science worldwide, especially companies are using python to gather insights from their data and get a competitive edge. This course focuses on Python specifically for geospatial data science. Students will learn about powerful approaches to store and manipulate data as well as cool data science tools to start their own analyses.

GSEN 6365 Spatial Database Design  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on spatial database principles and the practical skills of design, implementation, and use of spatial databases. This course will first cover fundamentals of relational database design, and then focus on design and management of spatial databases utilizing geodatabase models. In addition, case studies of geodatabase design models in several applications will also be covered. This course is intended for students who want to design, create, maintain and manipulate data from a geospatial database. Spring.

GSEN 6367 Geospatial Data Mining  
3 Semester Credit Hours (3 Lecture Hours)  
Geospatial data mining is the process of automatically discovering interesting and useful spatial patterns in large geospatial datasets. This course begins by covering fundamental concepts and techniques in data mining. Specific topics covered include classification, association analysis, and cluster analysis. It then focuses on using these data mining techniques for handling spatial, temporal and spatial-temporal data. In addition, the data mining tools to implement applications in geoscience will also be covered. Spring.

GSEN 6370 UAS for Surveying and Mapping  
3 Semester Credit Hours (3 Lecture Hours)  
Introduces the fundamentals of mapping with small Unmanned Aircraft Systems (sUAS) using digital imaging sensors to produce high resolution, accurate geospatial surveying products. The course will cover the full spectrum of UAS mapping including technology, current regulations, operational factors, flight design, photogrammetric data processing, and data fidelity. Supporting concepts will include georeferencing and ground control, 3D reconstruction with structure-from-motion photogrammetry, orthorectification and image mosaicking, accuracy assessment, and current developments in UAS for geomatics. Processing and analysis workflows using commercial and open-source software will be conducted to transform UAS image sequences into geospatial data products, extract analytics, assess results, and optimize output. Spring.

GSEN 6371 Geopositioning Systems and Autonomous Navigation  
3 Semester Credit Hours (3 Lecture Hours)  
Addresses the foundations and computational techniques of Global Navigation Satellite Systems (GNSS) and inertial measurement units (IMUs) for autonomous navigation applications. Specifically, the course will cover concepts and principles of GNSS signal structures and the derivation of observables; error sources and corrections; point, differential, and kinetic positioning techniques; IMU linear and angular dynamics modeling; mechanization of inertial navigation and error propagation; global/local coordinate frames and conversion; and filtering techniques for GNSS/IMU integration. The course also covers current and future capabilities of emerging geopositioning systems as they relate to autonomous navigation and mobile devices. Fall.

GSEN 6380 Applied Geospatial Statistics  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on geospatial statistics methods particularly multivariate statistics and applications of the statistical procedures to research geospatial problems. Research on geospatial problems often requires the application of multivariate statistical methods to produce new insight. Various existing statistic software is available to conduct multivariate statistical analysis, however, the interpretation of the results rely on solid understanding of statistic principles and theories. This course is intended for students who want to apply statistical methods to research geospatial problems.

GSEN 6381 Cadastral Information Systems Design  
3 Semester Credit Hours (3 Lecture Hours)  
A review of the evolution of European cadastral systems and land records traditions and alternatives. Examination of the goals and purposes of land tenure systems with attention to social, political, legal, economic, organizational, and technical issues. Exploration of U.S. modernization efforts and the problems of developing countries. Spring odd years.

GSEN 6382 Policy and Legal Aspects of Spatial information Systems  
3 Semester Credit Hours (3 Lecture Hours)  
A study of the current and emerging status of computer law in electronic environments. Covers issues related to: privacy, freedom of information, confidentiality, copyright, and legal liability; the impact of statute and case law on use of digital databases and spatial databases; and research of legal options of conflicts related to spatial data. Fall.

GSEN 6383 Advanced Geospatial Analytics  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on the theory, techniques, and applications of advanced geospatial analytics. Topics covered include spatial point patterns, network analysis, area objects and spatial autocorrelation, and spatial interpolation. New approaches to geospatial analytics will also be covered. This course emphasizes the methods and the applied side of geospatial analytics that can be useful in students' own theses or projects for their current or potential employers. Fall.

GSEN 6384 Geospatial Visualization Design  
3 Semester Credit Hours (3 Lecture Hours)  
This course will ensure that students understand and apply cartographic theory for visual communication and visual thinking, and be able to create, evaluate, and critique reference and thematic maps using GIS software. Fall.
GSEN 6385 Photogrammetric Engineering and Lidar Scanning
3 Semester Credit Hours (3 Lecture Hours)
A study of the analytical and systems engineering foundations of airborne photogrammetry and geodetic imaging technologies for 2D and 3D mapping of natural and built environments. The course covers principles of digital imaging, camera calibration, stereo and multi-view photogrammetry, analytical photogrammetry, structure-from-motion, light detection and ranging (lidar) systems, and emergent scanning and imaging approaches. The course also details photogrammetric and lidar data processing, point cloud analysis, and applications.

GSEN 6386 Remote Sensing and Image Analysis
3 Semester Credit Hours (3 Lecture Hours)
Addresses the interpretation, processing and analysis techniques of remotely sensed data acquired by orbital and sub-orbital platforms. Physical principles and imaging mechanisms, remote sensing systems, data characteristics, image processing, and information extraction methods will be covered. Topics include passive optical imaging with multispectral, hyperspectral, and thermal sensing; active imaging with radar sensing; image corrections and rectification; spatial/frequency transforms and image filtering; image classification and feature extraction; and image processing with machine learning techniques. Applications in the course will be focused on geomatics and monitoring of natural and built environments. Fall.

GSEN 6390 Advanced Topics
3 Semester Credit Hours (3 Lecture Hours)
Variable content study of specific areas of geospatial surveying engineering. May be repeated for credit when topics vary. Offered on sufficient demand.

GSEN 6396 Directed Independent Study
3 Semester Credit Hours (3 Lecture Hours)
Study in areas of current interest.

Master Degree Programs

- Biology, MS (p. 214)
- Chemistry, MS (p. 219)
- Coastal and Marine System Science, MS (p. 223)
- Environmental Science, MS (p. 227)
- Fisheries and Mariculture, MS (p. 232)
- Marine Biology, MS (p. 237)
- Mathematics, MS (p. 241)

Biology, MS

Program Description

The Master of Science in Biology is designed for graduate students who wish to become knowledgeable leaders and professionals with an in-depth education and specialized skills in the field of biology. This program promotes competency in the application of scientific methods of investigation to studies in biology with an emphasis on urban and coastal issues. Students develop a sense of creative independence that will allow them to practice in and contribute to a variety of professions and fields of scholarship.

Fast Track Biology BS to Biology MS

The university allows the opportunity for high-achieving undergraduate students to count a select number of graduate credits toward their undergraduate degree and thereby obtain a graduate degree at an accelerated pace. Students interested in the Fast Track in Biology should see the undergraduate catalog.

Student Learning Outcomes

Students will:

- Exhibit a basic mastery of essential and emerging knowledge and techniques in the field of biology, and in-depth mastery in the concepts and methods of their specific area of study.
- Work closely with their graduate advisory committee members to develop an academic plan that provides the student with chances to use the scientific method, is grounded in the principles of Biology, and includes experiences that are appropriate for each student's chosen career path.
- Demonstrate the ability to collect data, to organize and interpret data in the context of the relevant literature, and then to accurately describe their findings (orally and in writing).
- Develop an advanced skill set and a record of contributions to the discipline such that they can continue in academia or secure employment in federal, state, or local agencies, in private companies, or in non-governmental organizations where they can apply the skills and knowledge acquired in the program.

Graduate Credit From Other Disciplines

Graduate students in the Master of Science in Biology program may take courses from other disciplines in the College of Science and Engineering such as BIMS, CHEM, ESCI, GISC, GSEN, MARB, FAMA, MATH, and CMSW with approval from the student's graduate advisor/advisory committee. Up to nine semester credit hours of graduate courses from other colleges at Texas A&M University-Corpus Christi may be included as part of a degree plan with approval from the student's graduate advisory committee.

For Additional Information

Website:
(https://sci.tamucc.edu/departments/life-sciences/biology/)

Campus Address:
Engineering Building, Room 319
Phone (361) 825-2754

Mailing Address:
Graduate Biology Program, Unit 5800
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5800

Admission Requirements

Completed applications must be received by the Office of Recruitment and Admissions by the specified priority deadlines:

- Fall Semester - February 1
- Spring Semester - August 1
- Summer Sessions - February 1

To be considered for admission to the MS Program in Biology, an applicant should consult the Admissions (p. 7) section of this catalog for university requirements for admission. Applicants must provide the
following: a completed application form; application fee; official GRE scores; official transcripts of all college and university coursework; an essay (not more than 1000 words) describing educational and career goals, and interests as they relate to program faculty (see https://sci.tamucc.edu/departments/life-sciences/faculty.html); a list of the program faculty members contacted; and three letters of recommendation from people familiar with their potential for graduate studies. Students must contact potential advisors prior to and during the application process to discuss research opportunities in faculty member labs. A faculty member must be willing to serve as the chair of the applicant’s Graduate Advisory Committee and the applicant must include a summary of their discussions with faculty members in their essay. Applicants who do not have a faculty member willing to serve as their committee chair will not be admitted to the program.

Additional requirements exist for international students, including TOEFL or IELTS scores from the ETS taken within the last two years for students from countries where English is not the native language, and an approved foreign transcript evaluation that includes a course-by-course comparison (refer to the Admission section of this catalog). No criterion is weighted more heavily than any other criterion. A campus visit including personal interviews with prospective faculty mentors is recommended. Incomplete applications are not considered. Applications received or completed after the deadline for admission during one semester may be considered for admission in the following semester at the applicant’s request. Applicants will be notified of the outcome of their application by email.

Teaching Assistantships, graduate research assistantships or fellowships may be available to graduate students admitted as degree-seeking students who maintain full time graduate student status (9 hours/fall and spring semesters, and 3 hours/summer). The completed Teaching Assistant Application (see the College of Graduate Studies website) and all other materials requested for evaluation should be submitted to the office indicated on that form. For full consideration, the deadline for submitting applications is February 1 for the following academic year. Faculty members conducting funded research projects often hire qualified graduate students as Research Assistants. Students will need to contact faculty members in their field of interest for information on these opportunities.

Non-degree students may enroll in courses for which they have adequate academic preparation, but they may not apply more than nine credit hours of work taken in non-degree status to a graduate degree program. Non-degree students must consult with the MS Biology Graduate Coordinator to determine courses in which they can enroll and expect to apply to the MS Biology degree, should they be admitted to the program. Students must earn a grade of “B” or better in courses taken prior to admission to the program for the courses apply to the plan of study.

Academic Preparation
Degree candidates in biology are expected to enter the program with competencies that are equivalent to those required of Texas A&M University-Corpus Christi undergraduate biology majors as described in the biology section of the undergraduate catalog. Therefore, a degree candidate who lacks adequate academic preparation may be required by his or her Graduate Advisory Committee to complete undergraduate course work prior to the completion of the MS degree. Such course work (4000-sequence or lower) will be regarded as foundation or prerequisite work and will not count as credit towards the total required for completion of the degree.

Program Requirements
Each Master of Science degree candidate must complete a minimum of 36 graduate semester credit hours. Undergraduate courses (4000-sequence or lower) are regarded as foundation work and will not count toward the total. A student may request approval for transfer of a maximum of 9 semester credit hours of graduate courses from other colleges or universities to a Master of Science in Biology degree plan.

After admission to the graduate program, the student’s graduate advisor will guide him/her in all matters relating to degree requirements and procedures until the Graduate Advisory Committee is formed. By the end of the first semester of graduate study the student, in consultation with his/her graduate advisor, will select the remaining members of the Graduate Advisory Committee. This committee will advise the student in all matters pertaining to graduate requirements and procedures. A student’s Graduate Advisory Committee must consist of a minimum of three members, at least two of whom must be members of the graduate faculty in the Department of Life Sciences. Additional committee members must be members of the graduate faculty at Texas A&M University-Corpus Christi or an adjunct graduate faculty member in the Department of Life Sciences. The Chair of a student’s Graduate Advisory Committee must be a member of the graduate faculty in the Department of Life Sciences. The student and all members must mutually agree to the size and composition of the Graduate Advisory Committee. The committee will recommend a Degree Plan for the student that will then be submitted to the Dean of the College of Science and Engineering for approval.

There are two plans for obtaining the Master’s Degree in Biology: the Professional (Non-Thesis) Plan and the Thesis Plan.

Professional (Non-Thesis) Plan
The Professional (non-thesis) Master’s Degree is designed to provide a broad understanding of biology. The curriculum will especially benefit those individuals in professional employment who seek advancement or additional training to enhance their knowledge and skills. The student is required to write a professional paper based on work done in BIOL 5397 Directed Research (3 sch). The paper will be on a topic approved by the student’s Graduate Advisory Committee and will demonstrate the student’s ability in organization, data collection, and scientific writing. Graduate students are encouraged to present their research at a scientific meeting (other than their graduate seminar) prior to graduation.

Thesis Plan
The thesis Master’s Degree requires a thesis based upon original research. The research must include a review of relevant literature, a description of the results from original research on a topic approved by the Graduate Advisory Committee, statistical analysis when appropriate, and an appropriate discussion of the results. The research must be conducted during the period that the student is enrolled at Texas A&M University-Corpus Christi. Graduate students are expected to present their research at a scientific meeting (other than their graduate seminar) prior to graduation.

Additional Information
Thesis students may change to the Professional (Non-Thesis) Plan at any time with the approval of the Graduate Advisory Committee. The thesis and professional paper must follow format requirements as established in the College of Graduate Studies Master’s Student Handbook and the Department of Life Sciences Graduate Handbook, and
must be approved and signed by the members of the student’s Graduate Advisory Committee.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 5102</td>
<td>Graduate Defense Seminar</td>
<td>1</td>
</tr>
<tr>
<td>MATH 6315</td>
<td>Statistical Methods in Research I*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Professional or Thesis Plan**

Select one of the following Plans: 32

**Professional (Non-Thesis) Plan**

- BIOL 5397 Directed Research
  - Select 29 hours of Advanced Electives

**Thesis Plan**

- BIOL 5392 Thesis Proposal
- BIOL 5393 Thesis Research
- BIOL 5394 Thesis Submission
  - Select 23 hours of Advanced Electives

Total Hours 36

1. The advanced electives must be approved by the student’s Graduate Advisory Committee in order to be counted for credit towards the graduate degree.
2. Up to 4 hours of BIOL 5940 Project Research (1-9 sch) may be applied to MS Biology Thesis degree plan requirements.

**Enrollment Requirements**

All students are required to maintain continuous registration until completion of all requirements for graduation unless a specific leave of absence is granted in writing by the department. Students funded through scholarships, fellowships, and assistantships are required to maintain a minimum number of credit hours per semester (9 hours/ fall and spring semester, and 3 hours/summer). To meet enrollment requirements after completing all formal coursework on the degree plan, a student may register for BIOL 5940 Project Research (1-9 sch).

**Thesis Defense Seminar and Oral Examination**

During the graduate student’s final semester before graduation, the student must enroll in BIOL 5102 Graduate Defense Seminar (1 sch). To successfully complete this requirement, the student must

1. present and defend his/her thesis research in front of an audience including his/her Graduate Advisory Committee, peers, and other faculty, and
2. pass a final oral examination.

The student’s Graduate Advisory Committee will administer the examination. It will cover topics related to the thesis research or professional paper as well as broad aspects of biology. The student is responsible for scheduling the examination with the faculty involved according to program guidelines. A student who fails the final oral examination may repeat it after a minimum of four months. If a student fails the second oral examination, the student will not be permitted to continue in the program.

**Graduate Courses**

Graduate standing is required for enrollment in 5000- and 6000-level courses. Exceptions can be made for outstanding undergraduate students with the Dean’s consent. For details, see “Graduate Study by Undergraduates” in the catalog chapter titled “Academic and Degree Requirements” (p. 19). Weekly lecture and laboratory hours associated with each course are designated by (lecture:lab) following the semester hours when appropriate. The number of laboratory hours shown is the number of formal, scheduled laboratory time. In most cases, additional laboratory time will be required to complete assigned work. Prerequisites for entry into a course are indicated, but may be waived with permission of the instructor.

Graduate Courses can be viewed in the Courses A (https://catalog.tamucc.edu/content.php?catoid=25&navoid=1178-Z (p. 259)) section.

**Courses**

**BIOL 5102 Graduate Defense Seminar**

1 Semester Credit Hour

Presentation of research conducted for MS degree. Should be taken the last semester of resident graduate study. Open only to MS Thesis and Non-thesis Degree Candidates in Biology. Students can enroll in any semester with the approval of their graduate advisory committee chair.

**BIOL 5301 Coral Reef Systems**

3 Semester Credit Hours (3 Lecture Hours)

**BIOL 5304 Virology**

3 Semester Credit Hours (3 Lecture Hours)

Survey of bacteriophages and major pathogenic plant and animal viruses including Baltimore classification, viral replication, and emerging viral diseases. Emphasis on analysis and review of primary literature on viruses.

**Prerequisite:** BIOL 2416, 2421 and CHEM 3412.

**BIOL 5308 Biogeography**

3 Semester Credit Hours (3 Lecture Hours)

Selected reading, discussion and projects concerning the geographic distribution of plants and animals.

**Prerequisite:** BIOL 3428 and 3414.

**BIOL 5309 Systematics**

3 Semester Credit Hours (3 Lecture Hours)

Theories, methods, molecular and evolutionary basis of systematic biology; and rules and relationships of nomenclature used in classification.

**BIOL 5310 Physiological Adaptations in Animals**

3 Semester Credit Hours (3 Lecture Hours)

A study of the physiological adaptations of animals to their environment, including osmoregulatory and temperature regulatory mechanisms.

**Prerequisite:** BIOL 3430.

**BIOL 5311 Cellular Bases of Behavior**

3 Semester Credit Hours (3 Lecture Hours)

Using vertebrate and invertebrate animal models, this graduate-level course explores how behaviors emerge from the activity of neural circuits and how experience modulates these circuits.

**BIOL 5319 Biology of Marine Mammals**

3 Semester Credit Hours (3 Lecture Hours)

Introduction to marine mammals, with a focus on their interactions with their biotic and abiotic environment.
Prerequisite: CHEM 3412, BIOL 2416 and 3403.

BIOL 5329 Plant Adaptations
3 Semester Credit Hours (3 Lecture Hours)
Emphasis on living gymnosperms and angiosperms and their adaptive significance.

BIOL 5334 Biology and Ecology of Coral Reefs
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce the biology of corals, describe the abiotic and biotic interactions among coral reef ecosystem inhabitants, identify the threats of climate change, and discuss the conservation and management of reefs for the future. Offered every spring.

BIOL 5335 Aquatic Microbiology
3 Semester Credit Hours (3 Lecture Hours)
Types and distribution of microorganisms in aquatic environments. Interactions with other organisms. Role in nutrient cycling, degradation of organic substances, pollution, water purification.
Prerequisite: BIOL 2421.
Co-requisite: SMTE 0092.

BIOL 5340 Genomics, Proteomics and Bioinformatics
3 Semester Credit Hours (3 Lecture Hours)
Integrative biological study using genome-wide approaches and bioinformatics. The “omics” technologies (Genomics, Proteomics, Metabolomics, etc) will be reviewed. Applications to understanding biological function in various biological disciplines will be emphasized. Offered during fall. Cross listed with MARB 6342.
Prerequisite: BIOL 2416 and 3410 or CHEM 4301.

BIOL 5355 Public Aquarium and Animal Care Operations
3 Semester Credit Hours (3 Lecture Hours)
This course examines the unique requirements needed for aquariums and zoos to balance animal care and health with public display for general education and conservation research.
Co-requisite: SMTE 0091.

BIOL 5371 Evolutionary Genetics
3 Semester Credit Hours (3 Lecture Hours)
EVOLUTIONARY GENETICS An advanced introduction to evolutionary processes and their genetic basis, focusing on theoretical and experimental approaches to the study of population genetics, phylogeography, coalescence theory, evolutionary ecology, and molecular evolution.

BIOL 5392 Thesis Proposal
3 Semester Credit Hours
Thesis track students must complete a proposal for their thesis project. A proposal is considered complete when it is approved and signed by all members of the student’s graduate advisory committee. Open only to thesis track students in the MS Biology program. Qualified students can enroll in any semester with the approval of their graduate advisory committee chair.

BIOL 5393 Thesis Research
3 Semester Credit Hours
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted for initial editing and comment. A course section will be created for the student to enroll. Students can enroll in any semester with the approval of their graduate advisory committee chair.
Prerequisite: BIOL 5392.

BIOL 5394 Thesis Submission
3 Semester Credit Hours
The final draft of the thesis is completed, approved by the graduate advisory committee, and is readied for distribution. Students can enroll in any semester with the approval of their graduate advisory committee chair.
Prerequisite: (BIOL 5392 and 5393).

BIOL 5396 Directed Independent Study
1-3 Semester Credit Hours (1-3 Lecture Hours)
Study in areas of current interest. Credit is not given for research on the thesis project. A total of six semester hours of Directed Independent Study may be counted toward the MS degree.

BIOL 5397 Directed Research
3 Semester Credit Hours
For students in the MS Biology Professional track. Field, laboratory, and/or library research that results in the production of the professional paper, its approval by the graduate advisory committee, and its final submission. Students can enroll in any semester with the approval of their graduate advisory committee chair. This course must be successfully completed for the professional track student to complete the MS degree.

BIOL 5406 Immunology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
An in-depth study of immunology. Emphasizes function and interaction of specific cells, cytokines, lymphokines, antibodies and molecules that are the essential components of the immune system. The course includes up-to-date coverage of both innate and adaptive immunity, and the immune system in health and disease.
Prerequisite: BIOL 2421.
Co-requisite: SMTE 0092.

BIOL 5408 Microbial Ecology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.
Co-requisite: SMTE 0092.

BIOL 5410 Mammalogy
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The course is designed for graduate students in biology wanting to acquire a more detailed working knowledge and appreciation of mammalian diversity in structure, function, ethology, and ecology. Knowledge and skills acquired in this course will be useful to field and laboratory studies in ecology, evolution, animal behavior, biogeography, wildlife management, and related disciplines. Offered in even Fall semester.
Co-requisite: SMTE 0091.

BIOL 5411 Ethology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Adaptive aspects of animal behavior.
Co-requisite: SMTE 0091.

BIOL 5412 Ecology of Fresh Waters
4 Semester Credit Hours (4 Lecture Hours)
ECOLOGY OF FRESH WATERS Ecological relationships and productivity of freshwater communities, including rivers, lakes and wetlands. Focus is on interactions of the physical, chemical and biotic environment and influence of human activities on systems.
Co-requisite: SMTE 0091.
BIOL 5414 Growth and Development
4 Semester Credit Hours (4 Lecture Hours)
Special topics involving growth and development in plants and animals.
Co-requisite: SMTE 0092.

BIOL 5415 Biology of Estuarine Organisms
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Systematics, distribution, and ecology of estuarine macrofauna and macroflora. Weekend field trips and individual study required.
Prerequisite: BIOL 3413.
Co-requisite: SMTE 0091.

BIOL 5417 Field Biology
4 Semester Credit Hours (1 Lecture Hour, 6 Lab Hours)
is a hands-on course designed to teach students key concepts by immersing them in nature. Topics include adaptations of plants and animals in different habitats, food web interactions, and how biotic and abiotic forces interact to structure natural communities including spatial and temporal variation in communities.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

BIOL 5420 Application of Molecular Techniques
4 Semester Credit Hours (4 Lecture Hours)
Application of DNA-RNA technology to selected scientific problems. Emphasis on current research techniques.
Prerequisite: BIOL 3403 and CHEM 3411.
Co-requisite: SMTE 0092.

BIOL 5422 Plant Taxonomy
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Experimental and analytical approaches to plant variation and evolution, breeding systems, cyto- and molecular genetics, hybridization and phylogeny. The course will present a foundational approach to the methods, research and terminology of plant systematics and summarize information on the most recent knowledge of evolutionary relationships as well as practical information vital to field work.
Co-requisite: SMTE 0091.

BIOL 5425 Ornithology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The course is designed for graduate students in biology wanting to acquire a more detailed working knowledge and appreciation of avian diversity in structure, function, ethology, and ecology. Knowledge and skills acquired in this course will be useful to field and laboratory studies in ecology, evolution, animal behavior, biogeography, wildlife management, and related disciplines. Offered in odd Fall semesters.
Co-requisite: SMTE 0091.

BIOL 5426 Avian Biology
4 Semester Credit Hours (4 Lecture Hours)
NCD
Co-requisite: SMTE 0091.

BIOL 5427 Coastal Ecology of Texas
4 Semester Credit Hours (4 Lecture Hours)
COASTAL ECOLOGY OF TEXAS Study of the ecology and environmental issues of the Texas coast. Includes field trips along the entire Texas coastline.
Co-requisite: SMTE 0091.

BIOL 5428 Fisheries Biology
4 Semester Credit Hours (4 Lecture Hours)
FISHERIES BIOLOGY Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis on tidal-influenced waters. Includes readings in the current literature and a research project. The laboratory will emphasize practical sampling design and data interpretation.

BIOL 5429 Marine Botany
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Marine plants are a diverse group that includes unicellular algae, seaweeds, seagrasses, salt marshes, and mangrove forests. The goal is to present taxonomic, physiological, chemical, and ecological aspects of marine plants, their adaptations, and how abiotic and biotic factors interact in their communities. The use of recent journals and original scientific research will allow the student to evaluate anthropogenic effects to these communities and develop methods of restoration and management.
Co-requisite: SMTE 0091.

BIOL 5430 Marine Plankton
4 Semester Credit Hours (4 Lecture Hours)
Investigation of the systematics, distribution, and ecology of marine plankton. Cross listed with MARB 6430.
Co-requisite: SMTE 0091.

BIOL 5431 Phycology
4 Semester Credit Hours (4 Lecture Hours)
Study of the major groups of freshwater and marine algae; morphology, ecology, systematics, life cycles, and physiology. Laboratories emphasize collection, identification, and culturing techniques.
Co-requisite: SMTE 0092.

BIOL 5432 Ichthyology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The study of fish encompassing species diversity, natural history, and evolutionary and ecological relationships of fishes. This course will consist of four major parts: (1) Evolution, (2) Systematics, (3) Biology, and (4) Ecology of fish. Laboratory identification of marine and freshwater fishes from the University archives and collected during field excursions.
Co-requisite: SMTE 0091.

BIOL 5435 Biological Microtechniques
4 Semester Credit Hours (2 Lecture Hours, 4 Lab Hours)
The theory and practice of using histochemical and microscopic techniques to prepare tissues and small specimens for research analysis.
Prerequisite: CHEM 3411.
Co-requisite: SMTE 0092.

BIOL 5436 Marine Ecological Processes
4 Semester Credit Hours (4 Lecture Hours)
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

BIOL 5437 Ecology of Marine Plants
4 Semester Credit Hours (4 Lecture Hours)
Co-requisite: SMTE 0091.
The mission of the Master of Science program in Chemistry is to prepare students for technical careers, careers in chemical education at the secondary level or who aspire to enroll in a doctoral program. This program is designed to provide students with a quality experience that will help them grow as scholars and as professionals.

**Student Learning Outcomes**

Upon completion of their degree, students will:

- Possess a broad understanding of chemical concepts
- Possess enhanced knowledge of a specific area of chemistry, including relevant scientific literature, related to their thesis or professional paper
- Have the ability to accurately describe and assess chemistry related research both orally and in writing

**For Additional Information**

**Website:**
https://www.tamucc.edu/science/departments/physical-sciences/chemistry/graduate.php

**Campus Address:**
Center for Sciences Suite 130
Phone (361) 825-2681

**Mailing Address:**
Chemistry Program, Unit 5802
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5802

**Admission Requirements**

Applicants must comply with university procedures for admission to the degree program. Incomplete applications will not be considered. Persons seeking admission to the MS Program in Chemistry should first contact the program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor. Persons seeking admission to the MS Program in Chemistry should consult the Admissions section of this catalog for university requirements for admission. In addition to the documents required by the Office of Recruitment and Admissions, applicants must submit GRE general test scores, an essay of at least 300 words describing their educational and career interests, goals, and challenges, and three letters of evaluation from persons knowledgeable about their potential for success in graduate studies. Applicants may optionally submit other relevant materials, e.g., copies of published works or reports of past scientific research. All materials submitted will be considered. Applicants who already hold an earned graduate degree from a regionally accredited university need not submit GRE scores. The applicant will be notified by letter of acceptance or rejection.

Students accepted to the degree program in chemistry are generally expected to enter the program with an undergraduate degree in chemistry. Students accepted to the degree program with insufficient background in chemistry will be required to take undergraduate or graduate prerequisite courses prescribed by their advisory committees. These courses may or may not apply towards the total required for completion of the master's degree.

Teaching assistant positions are available to graduate students admitted as degree-seeking students. Minimum qualifications and applications for assistantships may be found on the College of Graduate Studies website.
Program Requirements
Each student accepted to the Master of Science in Chemistry degree program must complete a minimum of 36 semester hours for the non-thesis "Professional" track and a minimum of 30 semester hours for the thesis track.

Students will choose between thesis and professional (non-thesis) options. Students following either option will be required to take a core of chemistry/chemistry-related courses to provide a broad background to the field, and to select elective courses in consultation with their advisory committee to provide in-depth education in a particular area of emphasis related to chemistry. A student will define an emphasis area for his or her graduate studies with assistance from the graduate advisor and advisory committee. The emphasis areas include the traditional areas of chemistry such as analytical chemistry, biochemistry, environmental chemistry, inorganic chemistry, materials chemistry, physical chemistry or theoretical chemistry; or the student may choose an MS degree in chemistry related to one of the other programs at TAMUCC such as Coastal and Marine System Science, Engineering, Marine Biology, Environmental Science, etc.

A graduate student who has met with his or her advisory committee, formulated a degree plan approved by the graduate committee, and has the plan on file is considered a degree candidate. A student must have advanced to degree candidacy by the end of the second full semester of graduate study following admission to the program. A student's advisory committee must approve any subsequent changes to the degree plan. A change from the thesis to the professional (non-thesis) option or vice versa requires that the student file a new degree plan as approved by the advisory committee.

All Chemistry MS students must successfully complete at least six semester hours per academic year to remain in the program.

All Chemistry MS students must enroll in CHEM 5303 Research in the Chemical Sciences (3 sch) during their first semester.

All Chemistry MS students must pass a final oral exam, to be administered by their advisory committee, during their last semester before graduation.

Thesis Track
The thesis option requires a thesis based upon original research supported by the scientific literature, and analyzed statistically when appropriate. The thesis master's degree will allow a person to pursue advanced graduate study, or to obtain employment in most areas requiring a detailed knowledge of a specific aspect of chemistry.

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<tr>
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<th>Title</th>
<th>Hours</th>
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<tr>
<td>CHEM 5303</td>
<td>Research in the Chemical Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5317</td>
<td>Advanced Instrumental Analysis</td>
<td>3</td>
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Thesis Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 5392</td>
<td>Thesis Proposal</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5394</td>
<td>Thesis Submission</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5993</td>
<td>Thesis Research</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Prescribed Elective Courses
Select 12 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 5321</td>
<td>Molecular Ecology</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Hours: 36

Professional Track - Non-Thesis
The professional option allows students to take required and elective graduate courses to further explore sub-disciplines of chemistry and identify a project that will help them advance their career or better compete for leadership opportunities. The project would be appropriate (for example) to partner with local chemical industries to help develop solutions to applied problems arising during their operations, or for local educators to further their chemistry experience. Non-thesis students must complete a professional research project with a written final report and seminar.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 5303</td>
<td>Research in the Chemical Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5317</td>
<td>Advanced Instrumental Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 5397</td>
<td>Directed Research</td>
<td>3</td>
</tr>
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Prescribed Elective Courses
Select 24 hours from the following:

<table>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 5321</td>
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<tr>
<td>CHEM 5341</td>
<td>Advanced Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 5352</td>
<td>Computational Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 5362</td>
<td>Chemical Oceanography</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 5375</td>
<td>Stable Isotope Biogeochemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Hours: 25-33
Information About the Thesis or Professional Paper

Thesis and Professional Paper Format and Style

The thesis or professional paper must be prepared in a standard format and style dictated by the advisory committee and College of Graduate Studies. The format and style requirements will specify paper size, paper quality, margins, pagination, etc.

Upon approval by a student's advisory committee, a copy of the thesis will be sent to the Office of the Dean of the College of Science and Engineering. At the time of successful completion of the oral exam, committee members will sign the thesis and return it to the Dean of the College of Science and Engineering for final approval and signature. All submitted copies of the thesis must be bound in prescribed buckram. The student must pay the fee for this service. Thesis formatting and submission requirements have changed. Please visit the following link for further information: http://gradcollege.tamucc.edu/current_students/dissertation_thesis.html.

Grades for Thesis or Directed Research Courses

The following courses are eligible for awarding a permanent mark of “In Progress” (IP) if the work is not completed by the end of the semester in which a student has enrolled in the course: CHEM 5392 Thesis Proposal (3 sch), CHEM 5394 Thesis Submission (3 sch) and CHEM 5397 Directed Research (3 sch). University rules stipulate that the student must register for the same course in the subsequent semester, paying the appropriate tuition and fees, to receive a letter grade for the course.

For thesis students, the student’s graduate committee must sign the completed Thesis Proposal before the student is awarded a letter grade for CHEM 5392 Thesis Proposal (3 sch). If the proposal is not signed and on file in the College of Science and Engineering (Dean's Office) by the end of the semester, a permanent mark of IP will be awarded. The student will also receive a permanent mark of IP for each semester of CHEM 5394 Thesis Submission (3 sch) until the student has defended the thesis and the graduate committee has approved and signed the final thesis manuscript. At that time the student's graduate advisor will award a letter grade which reflects the overall quality of the thesis defense and the manuscript itself. Students who receive marks of IP must continuously enroll for CHEM 5392 Thesis Proposal (3 sch) or CHEM 5394 Thesis Submission (3 sch) until they earn a letter grade.

For non-thesis students, the student must have successfully defended the professional project, the student’s graduate committee must have accepted the professional paper, and a final copy must be on file in the College of Science and Engineering (Dean's Office) by the end of the semester before the student is awarded a letter grade for CHEM 5397 Directed Research (3 sch). The letter grade will reflect the overall quality of the professional project research and the final professional paper. Otherwise the student will receive a permanent mark of IP and must sign up again for CHEM 5397 Directed Research (3 sch) in a subsequent semester to receive a letter grade for this work.

Final Oral Exam

Each student must pass a final oral exam during the last semester before graduation, to be administered by the student’s advisory committee. The oral exam will cover topics related to

1. all graduate coursework undertaken for the chemistry program,
2. a student’s emphasis area (including the thesis or directed research project), and
3. broad concepts of chemistry, including a familiarity with the literature and appropriate professional societies.

The student is responsible for scheduling the exam with the faculty involved. A student who fails the final oral exam may repeat it once, but only after an interval of four months or more. If a student fails the second oral examination, the student will be terminated from the program.

Graduate Coursework

General prerequisite for 5000- and 6000-level courses: graduate standing. Senior undergraduates in their last semester or summer session of undergraduate work may take graduate-level courses provided that they have a cumulative grade point average of 3.0 or better, and that written approval is obtained from the Dean of the college in which the work is offered. Weekly lecture and laboratory hours associated with each course are designated by (lecture/lab) following the semester hours. The indicated laboratory hours are laboratory instructional time. In most cases, additional laboratory time will be required to complete assigned work.

Courses

CHEM 5302 Current Trends in Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The study and discussion of current topics and research efforts in chemistry. The course is intended to provide teachers with background and understanding that will enrich their classroom presentations in the chemistry curriculum. May be repeated for credit when topics vary. Offered on sufficient demand.

CHEM 5303 Research in the Chemical Sciences
3 Semester Credit Hours (3 Lecture Hours)
Studies and analysis of pertinent literature. May be repeated for credit, but credit may count only once towards the degree plan.

CHEM 5317 Advanced Instrumental Analysis
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of instrumental methods of analysis: spectroscopy, chromatography, and electrochemical methods.
Prerequisite: CHEM 3418.

CHEM 5321 Molecular Ecology
3 Semester Credit Hours (3 Lecture Hours)
A laboratory intensive graduate course that emphasizes the use of biochemical and molecular techniques to address ecological questions. Field sampling, sample preparation, biochemical and molecular genetic assays, statistical analysis and computer-based modeling techniques are used in a project-based approach to assess population genetic diversity, structure and migration rates in a key ecosystem species. Such estimates are of increasing concern for conservation and habitat management.
CHEM 5322  Supramolecular Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The course introduces advanced topics covering the areas of synthetic molecular receptors, host-guest chemistry, biochemical self-assembly, crystal engineering and molecular templation. Supramolecular chemistry has been called "chemistry beyond the molecule" focusing on intermolecular interactions and forces leading to the formation complexes and superstructures in solution and in the solid-state. The material takes a classical approach to chemical pedagogy that instills the excitement of modern research areas in the chemical sciences. The course is designed at an advanced level for graduate students.
Prerequisite: CHEM 3412.

CHEM 5341  Advanced Organic Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The course introduces advanced topics covering the areas of molecular structure and thermodynamics as well as reactivity, kinetics, and mechanisms of organic molecular architectures and ensembles. The material takes a classical approach to chemical pedagogy that instills the excitement of modern research areas in the chemical sciences. The course is designed at an advanced level for graduate students.
Prerequisite: CHEM 3412.

CHEM 5352  Computational Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The course will include the investigation of the uses and outcomes of computational chemistry, including both classical (non-quantum) simulations of molecular systems and quantum mechanical modeling of molecules. Emphasis will be on constructing an appropriate molecular model, performing the appropriate calculation, and interpreting the results of the calculation.

CHEM 5361  Organic Geochemistry
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the properties and cycling of natural organic materials will be presented to benefit graduate students studying marine systems. The course is designed to follow the geologic cycle of organic matter, from production in living organisms to burial in sediments and preservation in the depositional record. Specific topics include factors controlling preservation in sediments, methanogenesis, diagenetic alterations of organic compounds, fossil fuel production and degradation, life in the deep biosphere, biomarkers for ancient life, and isotopic variations in the sedimentary record.

CHEM 5362  Chemical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
This course will cover both chemical processes in the oceanic environment and how biology, geology and physics affect the chemistry. Topics include air-sea interactions, water column chemistry, and reactions in sedimentary environments. Students are expected to participate in the teaching process through their involvement in small groups, class discussions, and modeling/simulation exercises.
Prerequisite: CHEM 1311 and 1312.

CHEM 5369  Advanced Molecular Spectroscopy
3 Semester Credit Hours (3 Lecture Hours)
The course is taught at the graduate level with the curriculum focusing on the advanced spectroscopic methods of molecular structure determination. The course aims to present foundational theoretical concepts of different molecular spectroscopy techniques including nuclear magnetic resonance, infrared, ultraviolet-visible, and mass spectrosopies and how these techniques are used to interpret spectra of unknown and structurally complex molecular analytes. This includes modes of absorption and emission, qualitative and quantitative uses and potential problems and limitations. The course has been designed for students who have completed organic chemistry II lecture and laboratory during their undergraduate career.

CHEM 5375  Stable Isotope Biogeochemistry
3 Semester Credit Hours (3 Lecture Hours)
This course teaches stable isotope systematics of five common light elements - carbon, nitrogen, hydrogen, oxygen and sulfur in biological, geological, and systems. Course material includes basic principles, analytical methods, thermodynamic and kinetic fractionations, and applications of stable isotope analyses in a wide range of natural systems. This course is recommended to graduate students in chemistry, geology, biological sciences, and coastal and marine system science.
Prerequisite: CHEM 1412.

CHEM 5392  Thesis Proposal
3 Semester Credit Hours
Review of the literature on a thesis topic. Completion of a written research proposal including proposed experimental design.

CHEM 5393  Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
THESIS RESEARCH Chemistry Thesis Track students only. Collection and organization of research data. To receive a qualitative grade, the student must present a first draft of the thesis manuscript to the thesis advisor. If the semester ends before the advisor receives the first draft, an "In Progress" is recorded and the course must be repeated.
Prerequisite: CHEM 5392.

CHEM 5394  Thesis Submission
3 Semester Credit Hours
Thesis defense and completion of the thesis manuscript including acceptance of the final copy by the advisory committee. May be repeated; no more than three hours may be taken per semester.

CHEM 5397  Directed Research
3 Semester Credit Hours
Chemistry Professional Track students only. Collection, organization and submission of research data. To receive a qualitative grade, the student must successfully defend the professional project, the student's graduate committee must accept the professional paper, and a final copy must be on file in the Dean's Office. If the semester ends before these are accomplished, an "In Progress" is recorded and the course must be repeated.

CHEM 5417  Advanced Environmental Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Advanced study of the impact of chemistry on the environment. Topics will include the chemistry of the natural environment and the modifications to that environment brought about by human activities. Includes readings in current literature and research on an environmental issue. Includes a laboratory component.
Prerequisite: CHEM 1412.
Co-requisite: SMTE 0093.
CHEM 5421 Aquatic Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A study of the chemistry of natural and polluted waters. Topics include
chemical kinetic and equilibrium principles as applied to natural
and polluted waters, and the ecotoxicological aspects of aquatic
chemistry. In addition, critical readings in current literature and research
on environmental issues will be discussed. Includes a laboratory component.
Co-requisite: SMTE 0093.

CHEM 5431 Environmental Instrumental Analysis
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A presentation of standard instrumental tools and instrumental methods
used for the characterization of environmental pollutants and their
distribution in the environment. Includes a laboratory component.

CHEM 5490 Advanced Topics
1-4 Semester Credit Hours (1 Lecture Hour, 1-3 Lab Hours)
Subject materials variable. Advanced topics including current literature
research. May be repeated for credit when topics are sufficiently different.

CHEM 5596 Directed Independent Study
1-5 Semester Credit Hours
Study in areas of current interest. (A total of six hours of Directed
Independent Study may be counted toward the MS degree.)

CHEM 5940 Project Research
1-9 Semester Credit Hours (3 Lecture Hours)
Student research on a project of interest. This variable credit hour course
may be repeated in different semesters. Student may count up to six
hours of CHEM 5940 toward the Chemistry Thesis Track or Professional
Track with approval from the program coordinator.

CHEM 5993 Thesis Research
1-9 Semester Credit Hours
Chemistry Thesis Track students only. Collection, organization, and
analysis of research data.

CHEM 6321 Molecular Ecology
3 Semester Credit Hours (3 Lecture Hours)
A laboratory intensive graduate course that emphasizes the use of
biochemical and molecular techniques to address ecological questions.
Field sampling, sample preparation, biochemical and molecular genetic
assays, statistical analysis and computer-based modeling techniques
are used in a project-based approach to assess population genetic
diversity, structure and migration rates in a key ecosystem species.
Such estimates are of increasing concern for conservation and habitat
management. Offered on sufficient demand.

CHEM 6362 Chemical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
This course will cover both chemical processes in the oceanic
environment and how biology, geology and physics affect the
chemistry. Topics include air-sea interactions, water column chemistry,
and reactions in sedimentary environments. Students are expected to
participate in the teaching process through their involvement in small
groups, class discussions, and modeling/simulation exercises. Offered on
sufficient demand.
Prerequisite: CHEM 1411 and 1412.

CHEM 6375 Stable Isotope Biogeochemistry
3 Semester Credit Hours (3 Lecture Hours)
This course teaches stable isotope systematics of five common light
elements - carbon, nitrogen, hydrogen, oxygen and sulfur in biological,
geochemical, and systems. Course material includes basic principles,
analytical methods, thermodynamic and kinetic fractionations, and
applications of stable isotope analyses in a wide range of natural
systems. This course is recommended to graduate students in
chemistry, geology, biological sciences, and coastal and marine system
science.
Prerequisite: CHEM 1412.

CHEM 6417 Advanced Environmental Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Advanced study of the impact of chemistry on the environment.
Topics will include the chemistry of the natural environment and the
modifications to that environment brought about by human activities.
Includes readings in current literature and research on an environmental
issue. Includes a laboratory component.
Prerequisite: CHEM 1412.

CHEM 6421 Aquatic Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A study of the chemistry of natural and polluted waters. Topics include
chemical kinetic and equilibrium principles as applied to natural and
polluted waters, and the ecotoxicological aspects of aquatic chemistry.
In addition, critical readings in current literature and research on
environmental issues will be discussed. Includes a laboratory component.

Coastal and Marine System Science, MS

Program Description
Coastal and Marine System Science studies the interactions within the
coastal and marine environment, which includes most of the critical
physical and biological systems that support life on Earth. The mission
of the Coastal and Marine System Science (CMSS) program is to support
interdisciplinary research and scholarship on the biotic and abiotic
components of this zone, including quantitative investigation of socio-
economic and political processes. The program addresses this mission
by integrating the tools of Earth System Science: biogeochemistry,
geographic information science, ecosystem dynamics, and quantitative
modeling.

With the increasing efficiency of real-time data collection, transfer,
and processing, aided by autonomous observation systems such as
satellite sensors, oceanic buoys, and remotely controlled or autonomous
submersibles, Coastal and Marine System Science is at the forefront
of extracting meaningful scientific results from large data sets in near
real time. Graduates of the CMSS program will demonstrate proficiency
in understanding and applying the concepts and principles of all of the
natural sciences as well as a working competence in mathematical
modeling and geospatial analysis.

All students share a core of five interdisciplinary courses that cover the
foundations of mathematical modeling, environmental policy, and case
studies in system science. Topical specialized coursework (determined
by the graduate advisory committee of each individual student) provides
grounding in the specific scientific disciplines needed to effectively
manage the coastal and marine system. The required thesis involves an
independent, detailed research project of importance to the international
scientific community. The graduate advisory committee of each student
will guide them through the conception, design, construction, and execution of a systems-based inquiry. Students who earn graduate degrees in the sciences are typically employed in teaching or research positions in universities, or in pure research applications at specialized institutions or governmental agencies.

**Student Learning Outcomes**

As part of their progression through the Coastal and Marine System Science program, the students will:

- acquire the skills required for system science studies applied to coastal and marine topics such that they are prepared to conduct CMSS original research,
- perform original and hypothesis-driven quantitative analyses that will lead to comprehensive verifiable models of natural systems,
- emphasize mathematical and/or analytical skills to generate new data and critically evaluate models that will aid in our understanding of dynamic natural systems, become a resource capable of answering environmental “what if” questions by providing comprehensive interpretation,
- develop the skills necessary to present and publish their work at national and international venues, and
- develop a skill set and research record such that they can secure employment at universities, federal agencies, private companies, or non-governmental organizations where they can apply the skills and knowledge acquired during their time in the program.

**For Additional Information**

**Website:**
http://cmss.tamucc.edu/

**Campus Address:**
Natural Resource Center, Room 3500
Phone: (361) 825-2814 (Alessandra Garcia)

**Mailing Address:**
Coastal and Marine System Science Program, Unit 5850
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5850

**Admission Requirements**

Persons seeking admission to the CMSS Program must apply through the University's College of Graduate Studies (CGS). In addition to the documents required by CGS, applicants must submit GRE general test scores, an essay of no more than 1,000 words describing their educational background, career interests, goals and challenges, a curriculum vitae, and three letters of evaluation from persons knowledgeable about their potential for success in graduate studies. Persons seeking admission to the MS Program in CMSS should first contact the program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor. Applicants may optionally submit other relevant materials, e.g., copies of published works or reports of past scientific research. All materials submitted will be considered. A campus visit with personal interviews involving prospective faculty mentors is highly recommended. Completed applications must be received by the College of Graduate Studies by the deadlines posted on the CGS website.

Incomplete applications are not considered. The applicant will be notified of acceptance or rejection by letter.

Students accepted into the degree program must demonstrate proficiency in the natural sciences, mathematical modeling, and geospatial technology. This proficiency can be demonstrated by the successful completion of undergraduate classes in these topics, or by presentation of satisfactory evidence to the CMSS Program Coordinator. Students who are unable to demonstrate proficiency in the natural sciences, mathematics, or geospatial technology may be required to take undergraduate or graduate courses in these areas. These courses will not count toward the coursework required for the MS degree.

Teaching assistantships, graduate research assistantships, and fellowship positions are available to admitted degree-seeking students who maintain full-time graduate student status (9 credit hours per semester). For additional information, please contact the CMSS Program Coordinator

**Program Requirements**

Each student admitted to the MS in Coastal and Marine System Science degree program must complete a minimum of 36 hours beyond the bachelor’s degree (at the 5000- or 6000-level). A student's advisory committee must approve the degree plan. All students must successfully complete at least nine semester credit hours per long semester to remain in the program. All students must pass a final thesis defense, to be administered by their advisory committee, during their last semester before graduation.

The program normally requires a minimum of 18 credit hours of regular graded coursework. Justification for exceptions to this rule should be prepared by the student and advisor(s), endorsed by the advisory committee, and attached to the degree plan when submitted for the department head’s signature.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSS 5392</td>
<td>Thesis I: Thesis Proposal</td>
<td>3</td>
</tr>
<tr>
<td>CMSS 5393</td>
<td>Thesis II: Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>CMSS 5394</td>
<td>Thesis III: Thesis Submission</td>
<td>3</td>
</tr>
<tr>
<td>CMSS 6312</td>
<td>Communicating Science Seminar</td>
<td>3</td>
</tr>
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**Core: Multidisciplinary Course Choices**

Select two of the following:

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CMSS 6307</td>
<td>Coastal and Marine Systems</td>
</tr>
<tr>
<td>GSEN 6330</td>
<td>Spatial Systems Science</td>
</tr>
<tr>
<td>CMSS 6370</td>
<td>Coastal Management and Ocean Law</td>
</tr>
<tr>
<td>CMSS 6359</td>
<td>Marine Ecosystem Dynamics</td>
</tr>
</tbody>
</table>

**Core: Math and Statistics Course Choices**

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6315</td>
<td>Statistical Methods in Research I</td>
</tr>
<tr>
<td>MATH 6316</td>
<td>Statistical Methods Research II</td>
</tr>
<tr>
<td>CMSS 6323</td>
<td>Experimental Design</td>
</tr>
</tbody>
</table>
of the thesis will be submitted to the College of Graduate Studies. For

Upon approval by the student’s graduate advisory committee, a copy

Handbook. For more information, contact the College of Graduate

Thesis Format, Style, and Submission
The thesis must be prepared in a standard format and style prescribed
by the advisory committee. Guidance can be found in the CMSS Student
Handbook. For more information, contact the College of Graduate Studies.

Upon approval by the student’s graduate advisory committee, a copy
of the thesis will be submitted to the College of Graduate Studies. For

more information, see the Masters Student Handbook, available from the

College of Graduate Studies.

Final Thesis Defense
Each student must pass a final thesis defense examination during the
last semester before graduation, to be administered by the student’s
graduate advisory committee. The exam will cover topics related to

1. all graduate coursework undertaken for the CMSS program,
2. the student’s thesis research area, and
3. broad concepts of system science, requiring familiarity with the
   literature and appropriate professional societies.

The student is responsible for scheduling the defense in consultation
with the graduate advisory committee. A student who fails the defense
may repeat it once, but only after an interval of four months or more. If a
student fails the second defense, the student will be terminated from the
program. Students must enroll in the course CMSS 5394 Thesis III: Thesis
Submission (3 sch) during the semester in which they are planning to
defend the thesis and/or graduate.

Courses
CMSS 5392 Thesis I: Thesis Proposal
3 Semester Credit Hours (3 Lecture Hours)
Thesis students must submit a completed proposal for their thesis
project. A course section will be created for the student to enroll. Upon
successful completion and submission of the proposal signed by
the graduate committee of the student, students may then register
for CMSS 5393 Thesis Research. Open only to M.S. Thesis Degree
Candidates in CMSS.

CMSS 5393 Thesis II: Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
Implementation of the Thesis Proposal, and the production of a rough
draft of the thesis submitted to the graduate committee of the student
for initial editing and comment. A course section will be created for the
student to enroll.
Prerequisite: CMSS 5392.

CMSS 5394 Thesis III: Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
Completion of the final draft of the thesis, signed by the graduate
committee of the student and ready for binding and distribution. A course
section will be created for the student to enroll.
Prerequisite: CMSS 5393.

CMSS 5596 Directed Independent Study
1-5 Semester Credit Hours
Study in areas of current interest. A total of six semester hours of
Directed Independent Study may be counted towards the CMSS M.S.
degree.

CMSS 5940 Thesis Project Research
1-9 Semester Credit Hours
Research related to the CMSS M.S. thesis project. Open only to M.S.
students in CMSS with consent of the graduate advisor. Up to six hours
may count as credit toward regular graded (non-research, non-variable
credit) elective coursework for M.S. degree requirement in Coastal and
Marine System Science.

Elective, Specialized and Topical Courses
Elective coursework (12 sem. hrs.) supporting the student’s individual
research goals is chosen from biology, chemistry, coastal and marine
system science, computer science, environmental science, geographic
information science, geology, math, marine biology, or other course
offerings, in consultation with student’s advisory committee.

Topical coursework should be approved by the graduate advisory
committee, and is offered under the heading of: CMSS 6590 Advanced
Topics (1-5 sch) Advanced Topics.

Students can also enroll in a Directed Independent Study, supervised
by their advisor or other faculty members, at any stage of the program
progression: CMSS 5596 Directed Independent Study (1-5 sch).

Students may also enroll in CMSS 5940 Thesis Project Research (1-9
sch) to conduct research related to the CMSS M.S. thesis project. Up to
six hours may count as credit toward regular graded (non-research, non-
variable credit) elective coursework for the M.S. degree requirement in
Coastal and Marine System Science.

The remainder of classes or research projects designated as part of the
elective coursework requirement must receive the approval of a student’s
graduate advisory committee. Students must demonstrate to the
committee that the selection of classes or research projects produces
a coherent course of study focused on the student’s particular area of
emphasis. Depending on the emphasis area, selections may include
coastal and marine system science, marine biology, the natural sciences,
computer science, geographic information science, mathematics,
political science, public administration, business law, or other areas as
stipulated by the graduate advisory committee.

Thesis Information
Thesis Course Series
Three courses are taken for the main research component of the degree,
CMSS 5392 Thesis I: Thesis Proposal (3 sch), CMSS 5393 Thesis II:
Thesis Research (3 sch), and CMSS 5394 Thesis III: Thesis Submission
(3 sch). These must be taken by all students.

Thesis Format, Style, and Submission
The thesis must be prepared in a standard format and style prescribed
by the advisory committee. Guidance can be found in the CMSS Student
Handbook. For more information, contact the College of Graduate
Studies.

Upon approval by the student’s graduate advisory committee, a copy
of the thesis will be submitted to the College of Graduate Studies. For
CMSS 6303 Natural Systems Analysis
3 Semester Credit Hours (3 Lecture Hours)
Statistical analysis for data collected in several variables. Topics include sampling from multivariate normal distribution, multivariate analysis of variance, discriminant analysis, principle components, and factor analysis.
Prerequisite: MATH 6315.

CMSS 6305 Natural Systems Modeling
3 Semester Credit Hours (3 Lecture Hours)
Modeling and analysis of deterministic and stochastic dynamical systems, including investigation of model behavior and stability. Theory will be applied to research natural environmental and biological systems such as multi-species systems, carbon circulation in the biosphere, Nutrients-Phytoplankton-Zooplankton models, etc.
Prerequisite: MATH 6315 and 6316.

CMSS 6307 Coastal and Marine Systems
3 Semester Credit Hours (3 Lecture Hours)
Description of coastal and oceanic ecosystems to provide an overview of the fundamental concepts of the abiotic and biotic components, physical-chemical processes, and interactions with environmental and human systems.

CMSS 6308 Coastal Geoenvironments and Change
3 Semester Credit Hours (3 Lecture Hours)
Investigations of the origin, character, and processes of coastal geoenvironments with an emphasis on tracking historical and projecting future changes, including examination of the interactions of geological and biological processes and impacts of human activities on coastal depositional systems.

CMSS 6310 Fundamentals of Remote Sensing
3 Semester Credit Hours (3 Lecture Hours)
Fundamental theory of satellite/airborne remote sensing techniques, sensor performance and calibration, and the scientific applications for land, ocean and atmosphere observations. Topics include physical principles of remote sensing, radiometry, sensors and sensor technology from infrared to microwave sensing, and scientific applications for land, ocean and atmosphere observations. Cross listed with ESCI 6310.

CMSS 6312 Communicating Science Seminar
3 Semester Credit Hours (3 Lecture Hours)
Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.

CMSS 6323 Experimental Design
3 Semester Credit Hours (3 Lecture Hours)
Fundamental concepts of mathematical ecology and the design and analysis of environmental experiments. Students Learn SAS programming and procedures to compute ecological metrics, data management techniques, exploratory analysis, power, sample size, checking assumptions, and analysis of variance models to compute a priori and post hoc hypothesis tests.
Prerequisite: MATH 6315.

CMSS 6327 Physical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Succinct review of basic concepts of physical oceanography followed by general presentations and discussions in three selected areas: global ocean circulation, circulation along the Gulf of Mexico continental shelf, and ocean-atmosphere interaction and impacts on climate. A significant portion of the class is based on student guided reading assignments.

CMSS 6328 Coastal Ocean using RMT SNS
3 Semester Credit Hours (3 Lecture Hours)

CMSS 6333 Paleo Systems
3 Semester Credit Hours (3 Lecture Hours)
Study of the interrelationships of ancient organisms and their environment through interpretation of the fossil record, analog communities, and oceanographic data, such as carbon and oxygen isotopes. Theories and methods of reconstructing terrestrial, marine and freshwater biotic communities and environments. Review of classic paleoecological and paleoceanographic studies as well as current research.
Prerequisite: BIOL 3428 and GEOL 1401 and (ESCI 3351 or GEOL 4316).

CMSS 6334 Geological Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Integrated examination of the geology and geochemistry of the marine environment. Evolution of ocean basins, continental margins and plate boundaries; geology of oceanic crust; controls on the types, origin, and distribution of marine sediments; and introduction to paleoceanography.
Prerequisite: ESCI 3351 or GEOL 4316.

CMSS 6340 Ocean Resources
3 Semester Credit Hours (3 Lecture Hours)

CMSS 6352 Environmental Forecasting
3 Semester Credit Hours (3 Lecture Hours)
Statistical techniques (classic and Bayesian) and new artificial intelligence based techniques, such as neural networks, for the analysis of environmental systems with large datasets.
Prerequisite: CMSS 6305.

CMSS 6357 Global Geochemical Cycles and Change
3 Semester Credit Hours (3 Lecture Hours)
Integrated examination of global-scale geochemical cycles operating within and between the four components of the Earth system (atmosphere, hydrosphere, biosphere, and solid Earth) and their role in the evolution of our planet.
Prerequisite: CHEM 1411, 1412 and 3411.

CMSS 6358 Ocean and Estuarine Acidification
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on introducing the concept of acidification of marine ecosystems (estuaries and oceans) and biological and ecological responses to the acidification; the geological past will also be examined in the context of current ocean acidification. Numerical simulations using the software CO2SYS and interpretation of open-access global databases on global ocean and estuarine acid-base dynamics will be introduced in this class.
Prerequisite: (CHEM 1411 and 1412).

CMSS 6359 Marine Ecosystem Dynamics
3 Semester Credit Hours (3 Lecture Hours)
Investigation of the interactions between organisms and physical processes that regulate marine ecosystem functions.

CMSS 6360 Computer Programming in Earth System Sciences
3 Semester Credit Hours (3 Lecture Hours)
This course is to enhance the programming skills of graduate students under various scientific programming environments. The focus is on the data analysis and problem-solving using Python, R, MATLAB and IDL. The contents of the course include the basic concepts of the operating systems and high-level programming languages, basics of programming in Python, general data analysis methods and tools, common scientific data formats, publication quality scientific graphics, the critical steps of building a large programming project.
CMSS 6362 Global Change and Its Impact on Aquatic Ecosystems  
3 Semester Credit Hours (3 Lecture Hours)  
This course will introduce students to the effects of climatic and anthropogenic change on aquatic ecosystem structure and function. Includes readings from the current literature and development of a research proposal. Cross-listed with MARB 6362.

CMSS 6370 Coastal Management and Ocean Law  
3 Semester Credit Hours (3 Lecture Hours)  
Intensive study of the 1972 National Coastal Zone Management Act and subsequent coastal management programs. The Texas program, which is administered by the General Land Office, will be dealt with in depth as the central focus of the course. Statutory law relating to citizen, state, and federal rights and duties as they impact coastal and maritime law will be studied including applicable Texas real property law. Students will use case law studies relating to those rights and duties and Public Trust Doctrine cases to gain an integral part of understanding the responsibilities of governments and rights of citizens.

CMSS 6372 Environmental Sustainability Economics  
3 Semester Credit Hours (3 Lecture Hours)  
This course will introduce the fundamental concepts of neoclassical microeconomics and ecological economics and apply them to environmental and sustainability issues.

CMSS 6590 Advanced Topics  
1-5 Semester Credit Hours (1-5 Lecture Hours)  
An advanced study of an environmental systems topic. May be repeated with full credit in another area of environmental systems.

CMSS 6596 Directed independent Study  
1-5 Semester Credit Hours  
Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the Ph.D. degree.

CMSS 6940 Dissertation Project Research  
1-9 Semester Credit Hours (1-9 Lecture Hours)  
DISSERTATION PROJECT RESEARCH Research related to Ph.D. dissertation project. Open only to degree candidates in Coastal and Marine Systems Science with consent of the graduate advisor. Course is taken as credit/non-credit and may be repeated.

CMSS 6966 Research  
1-9 Semester Credit Hours (1-9 Lecture Hours)  
Independent research conducted under supervision of an advisor. Open to Coastal and Marine System Science students who have not yet passed the qualifying exam and with consent of their graduate advisor. The course is graded with an S or U, and may be repeated.

CMSS 6998 Dissertation Research  
1-9 Semester Credit Hours (1-9 Lecture Hours)  
Research related to Ph.D. dissertation project. Open only to degree candidates having passed the qualifying exam in Coastal and Marine System Science with consent of their graduate advisor. The course is graded with an S or U, and may be repeated.

CMSS 6999 Dissertation Defense  
3-9 Semester Credit Hours  
Open only to degree candidates in Coastal and Marine System Science with consent of their graduate advisor. Students should enroll in this course during the last semester of the CMSS PhD program. To successfully complete this course the student must pass the dissertation defense as well as have a final copy of the dissertation signed by the full graduate committee and approved for binding and distribution. A course section will be created for the student to enroll. A grade of Credit/No Credit will be assigned for the class with the possibility to assign the grade of IP or In Progress. If a grade of IP is assigned, the course must be repeated the following semester(s) until the course is passed.

Environmental Science, MS  
Program Description  
The mission of the Master of Science program in Environmental Science is to provide a rich and rewarding setting in which students and faculty can develop and communicate innovative and practical solutions to present and future environmental challenges, with a focus on urban and coastal issues.

Fast Track Environmental Science BS to Environmental Science MS and Fast Track Geology BS to Environmental Science MS  
The university allows the opportunity for high-achieving undergraduate students to count a select number of graduate credits toward their undergraduate degree and thereby obtain a graduate degree at an accelerated pace. Students interested in the Fast Tracks in Environmental Science should see the undergraduate catalog.

Student Learning Outcomes  
Students will:

- Possess a broad understanding of environmental science.
- Possess enhanced knowledge of a specific area of environmental science, including relevant scientific literature, related to their thesis or professional paper.
- Have the ability to accurately describe and assess environmental research both orally and in writing.

Students will choose between thesis and professional (non-thesis) options. The professional option is designed for students who desire a greater breadth of understanding of environmental science than the thesis option provides. The curriculum will specially benefit individuals employed in scientific or technical fields who seek advancement or additional training to enhance their knowledge and skills. Professional option students must complete a professional research project with a written final report and seminar. The thesis option requires a thesis based upon original research, supported by the scientific literature, and analyzed statistically, when appropriate. The thesis master's degree will allow a person to pursue advanced graduate study, or to obtain employment in most areas requiring a detailed knowledge of a specific aspect of environmental science.

Students following either option will be required to take a core of interdisciplinary courses to provide a broad background, and to select elective courses in consultation with their advisory committee to provide in-depth education in a particular area of emphasis related to
environmental science. The elective courses may derive from one science discipline but they will often be interdisciplinary.

For Additional Information
Website:
http://gradschool.tamucc.edu/degrees/science/environmental_science.html

Campus Address:
Carlos F. Truan Natural Resource Center Room 1100
Phone (361) 825-2681

Mailing Address:
Environmental Science Program, Unit 5850
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5850

Admission Requirements
Applicants must comply with university procedures for admission to the degree program. Incomplete applications will not be considered. Persons seeking admission to the MS Program in Environmental Science should first contact the program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor. Consult the Admissions (p. 7) section of this catalog for university requirements for admission. In addition to the documents required by the Office of Recruitment and Admissions, applicants must submit GRE general test scores, an essay of at least 300 words describing their educational and career interests, goals, and challenges, and three letters of evaluation from persons knowledgeable about their potential for success in graduate studies. Applicants may optionally submit other relevant materials, e.g., copies of published works or reports of past scientific research. All materials submitted will be considered. Applicants who already hold an earned graduate degree from a regionally accredited university need not submit GRE scores. The applicant will be notified by letter of acceptance or rejection.

Students accepted to the degree program in environmental science are expected to enter the program with undergraduate degrees in science or substantial undergraduate or graduate science background. Students accepted to the degree program with insufficient background in science, computer science, mathematics, or communication skills will be required to take undergraduate or graduate prerequisite courses prescribed by their advisory committees. These courses may or may not apply towards the total required for the master’s degree.

Teaching assistant positions are available to graduate students admitted as degree-seeking students. The completed Teaching Assistant Application and letters of recommendation should be submitted to the address indicated on the application. The deadline for submitting applications is February 1 for the following academic year.

Program Requirements
Each student accepted to the Master of Science in Environmental Science degree program must complete a minimum of 36 semester hours under either the thesis or professional (non-thesis) options.

A graduate student who has met with his or her advisory committee, formulated a degree plan approved by the graduate committee, and has the plan on file is considered a degree candidate. A student must have advanced to degree candidacy by the end of the second full semester of graduate study following admission to the program. A student’s advisory committee must approve any subsequent changes to the degree plan. A change from thesis to professional option or vice versa requires that the student file a new degree plan as approved by the advisory committee.

All students must successfully complete at least six semester hours per academic year to remain in the program. Students should enroll in ESCI 6101 Environmental Research Seminar (1 sch), ESCI 6203 Professional Skills for Scientists (2 sch), and MATH 6315 Statistical Methods in Research I (3 sch) as early as possible during their graduate course of study. All students must pass a final oral exam, to be administered by their advisory committee, during their last semester before graduation.

### Thesis Option

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<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>ESCI 6101</td>
<td>Environmental Research Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ESCI 6203</td>
<td>Professional Skills for Scientists</td>
<td>2</td>
</tr>
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<td>MATH 6315</td>
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<td>ESCI 5393</td>
<td>Thesis II: Thesis Research</td>
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</tbody>
</table>

Select 18 hours of electives in specialty area to be chosen in consultation with a student’s advisory committee 2

Select one of the following:

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BLAW 5330</td>
<td>Environmental Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>ESCI 6302</td>
<td>Federal Environmental Laws and Regulations</td>
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<tr>
<td>ESCI 6360</td>
<td>Coastal Management and Ocean Law</td>
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</tbody>
</table>

| Total Hours | 36 |

1 Core requirements may be waived if a student can demonstrate equivalent competencies in that area.
2 At least 9 hours must be from ATSC, BIMS, BIOL, CHEM, CMSS, ESCI, FAMA, GEOL, MARB, PHYS, or SMTE.

### Professional (Non-Thesis) Option

Professional option students must write a professional paper and present a seminar based on work completed in ESCI 5397 Directed Research (3 sch). The paper and seminar will be on a topic approved by the student’s advisory committee and will demonstrate the student’s ability in organization, data collecting, scientific writing, and oral presentation.

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<tbody>
<tr>
<td>ESCI 5397</td>
<td>Directed Research</td>
<td>3</td>
</tr>
</tbody>
</table>
Select 24 hours of electives in specialty area to be chosen in consultation with a student’s advisory committee.

Select one of the following:

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Total Hours: 36

1. Core requirements may be waived if a student can demonstrate equivalent competencies in that area.
2. At least 9 hours must be from ATSC, BIMS, BIOL, CHEM, CMSS, ESCI, FAMA, GEOL, MARB, PHYS, or SMTE.

* Online offering
  * Blended offering

**Emphasis Areas, Tracks, and Designated Electives**

A student will define an emphasis area or track for his or her graduate studies with assistance from the graduate advisor and advisory committee. Marine Policy and Human Dimensions is one possible track; another is Coastal and Marine System Science. These are described in further detail below. The emphasis area is a unique word or phrase which best expresses the student’s intended focus of graduate studies within the broad field of environmental science. Suggested emphasis areas (not an exclusive list) include: bioremediation, coastal ecosystems, coastal geomorphology, conservation, contaminants, ecotoxicology, environmental monitoring, environmental regulations, fisheries, geospatial sciences and remote sensing applications, and hydrogeology. Other emphasis areas are possible as approved by a student’s graduate committee. Electives from the natural sciences, computer science, geographic information science, mathematics, political science, public administration, business law, or other areas may be approved.

**Marine Policy and Human Dimensions Track**

Students with an interest in studying the application of environmental science to ocean/coastal policy may choose the Marine Policy and Human Dimensions track. The track provides an understanding of the physical and biological coastal environment and its interaction with human behaviors and policies. This transdisciplinary program is designed to prepare students to work with a wide variety of marine and coastal constituencies to translate sound environmental science to public policy. Suggested electives include:

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<tr>
<td>ESCI 6340</td>
<td>Ocean Resources</td>
<td>3</td>
</tr>
<tr>
<td>ESCI 6345</td>
<td>Living with Coastal Hazards</td>
<td>3</td>
</tr>
<tr>
<td>ESCI 6360</td>
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**Coastal and Marine System Science Track**

This track is appropriate for students who may wish to apply selected Coastal and Marine System Science courses to a MS degree in Environmental Science, as approved by the student’s graduate committee.

**Thesis and Professional Paper Format and Style**

The thesis or professional paper must be prepared in a standard format and style dictated by the advisory committee. The format and style requirements will specify paper size, paper quality, margins, pagination, etc. Thesis formatting and submission requirements have changed. Please visit the following link for further information: http://gradschool.tamucc.edu/current_students/doctoral_dissertation.html.

Upon approval by a student’s advisory committee, a copy of the thesis will be sent to the Office of the Dean of the College of Science and Engineering. At the time of successful completion of the oral exam, committee members will sign the thesis and return it to the Dean of the College of Science and Engineering for final approval and signature. All submitted copies of the thesis must be bound in prescribed buckram. The student must pay the fee for this service.

**Grades of In Progress (IP) for Thesis or Directed Research**

The following courses are eligible for awarding a permanent mark of In Progress (IP) if the work is not completed by the end of the semester in which a student has enrolled in the course:

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<tr>
<td>ESCI 5397</td>
<td>Directed Research</td>
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University rules stipulate that the student must register for the same course in the subsequent semester, paying the appropriate tuition and fees, to receive a letter grade for the course.

For thesis students, the student’s graduate committee must sign the completed Thesis Proposal before the student is awarded a letter grade for ESCI 5392 Thesis I: Thesis Proposal (3 sch). If the proposal is not signed and on file in the College of Science and Engineering (Dean’s Office) by the end of the semester, a permanent mark of IP will be awarded. The student will receive a permanent mark of IP for each semester of ESCI 5393 Thesis II: Thesis Research (3 sch) until the student has presented a rough draft of the thesis. At that time the student’s graduate advisor will award a letter grade which reflects the overall quality of the thesis research and the draft. Finally, the student will receive a permanent mark of IP for each semester of ESCI 5394 Thesis III: Thesis Submission (3 sch) until the student has defended the thesis and the graduate committee has approved and signed the final thesis manuscript. At that time the student’s graduate advisor will award a letter grade which reflects the overall quality of the thesis defense and the manuscript itself. Thesis students who receive marks of IP must continuously enroll for ESCI 5392 Thesis I: Thesis Proposal (3 sch), ESCI 5393 Thesis II: Thesis Research (3 sch), or ESCI 5394 Thesis III: Thesis Submission (3 sch) in order to receive letter grades for these hours. Any student receiving a mark of IP for ESCI 5392 Thesis I: Thesis Proposal (3 sch), ESCI 5393 Thesis II: Thesis Research (3 sch), or ESCI 5394 Thesis III: Thesis Submission (3 sch) will have to enroll in more than six hours of ESCI 5392 Thesis I: Thesis Proposal (3 sch)/ESCI 5393 Thesis II: Thesis Research (3 sch)/ESCI 5394 Thesis III: Thesis Submission (3 sch) in total, to earn the requisite hours of thesis credit with an assigned letter grade.

For non-thesis students, the student must have successfully defended the professional project, the student’s graduate committee must have accepted the professional paper, and a final copy must be on file in the College of Science and Engineering (Dean’s Office) by the end of the semester before the student is awarded a letter grade for ESCI 5397 Directed Research (3 sch). The letter grade will reflect the overall quality...
of the professional project research and the final professional paper. Otherwise the student will receive a permanent mark of IP and must sign up again for ESCI 5397 Directed Research (3 sch) in a subsequent semester to receive a letter grade for this work.

**Final Oral Exam**

Each student must pass a final oral exam during the last semester before graduation, to be administered by the student's advisory committee. The oral exam will cover topics related to

1. all graduate coursework undertaken for the environmental science program,
2. a student's emphasis area (including the thesis or directed research project), and
3. broad concepts of environmental science, including a familiarity with the literature and appropriate professional societies.

The student is responsible for scheduling the exam with the faculty involved. A student who fails the final oral exam may repeat it once, but only after an interval of four months or more. If a student fails the second oral examination, the student will be terminated from the program.

**Graduate Coursework**

General prerequisite for 5000- and 6000-level courses: graduate standing. Senior undergraduates in their last semester or summer session of undergraduate work may take graduate-level courses provided that they have a cumulative grade point average of 3.0 or better, and that written approval is obtained from the Dean of the college in which the work is offered. Weekly lecture and laboratory hours associated with each course are designated by (lecture:lab) following the semester hours. The indicated laboratory hours are laboratory instructional time. In most cases, additional laboratory time will be required to complete assigned work.

Graduate courses can be found in the Courses (https://catalog.tamucc.edu/content.php?catoid=25&navoid=1178) A-Z (p. 259) section of the catalog.

**Courses**

ESCI 5350 Fundamentals of Physical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Principles that rule water motions and associated transport and dispersion of natural and man-made substances in the sea including a review of the mean ocean circulation and its spatial and temporal variability, observational methods, ocean circulation theories and air-sea interactions.

ESCI 5392 Thesis I: Thesis Proposal
3 Semester Credit Hours (3 Lecture Hours)
Review of the literature on a thesis topic. Completion of a written research proposal including proposed experimental design. If the thesis proposal is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

ESCI 5393 Thesis II: Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
Collection and organization of research data and presentation of a rough draft of the thesis manuscript to the thesis advisor. May be repeated; no more than three hours may be taken per semester. If the thesis draft is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

Prerequisite: ESCI 5392.

ESCI 5394 Thesis III: Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
The thesis defense and completion of the thesis manuscript including acceptance of the final copy by the advisory committee. May be repeated; no more than three hours may be taken per semester. If the thesis is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

Prerequisite: ESCI 5392.

ESCI 5397 Directed Research
3 Semester Credit Hours (3 Lecture Hours)
Emphasis on experimental design as related to environmental science. For students selecting the professional (non-thesis) option. Only three semester hours will count towards the non-thesis degree. Requires presentation of results in a written paper and seminar. If the professional paper is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

ESCI 5398 Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of current interest. (A total of six hours of Directed Independent Study may be counted toward the MS degree.)

ESCI 5940 Independent Study
1-5 Semester Credit Hours
Course is taken as credit/no credit. May be taken concurrently.

ESCI 6101 Environmental Research Seminar
1 Semester Credit Hour (1 Lecture Hour)
Studies and analysis of pertinent literature. May be repeated for credit, but credit may count only once towards the degree plan. Course is taken as credit/no credit.

ESCI 6130 Oil Spill Management Lab
1 Semester Credit Hour (1 Lab Hour)
FIELD EXERCISES IN OIL SPILL RESPONSE, UTILIZING A SPILL MANAGEMENT TEAM INCORPORATING THE ELEMENTS OF INCIDENT COMMAND.

Prerequisite: ESCI 6320.

* May be taken concurrently.

Co-requisite: ESCI 6230, SMTE 0096.

ESCI 6170 Hazardous Waste Treatment Technologies Lab
1 Semester Credit Hour (1 Lab Hour)
REVIEW OF PRACTICAL TECHNIQUES FOR HANDLING, REDUCING, AND DISPOSING OF HAZARDOUS WASTES IN AN ENVIRONMENTALLY SAFE MANNER.

Co-requisite: SMTE 0096.
ESCI 6201 Advanced Scientific Diving Techniques
2 Semester Credit Hours
Advanced study of the theory, science, and art of underwater diving technology and its application to scientific objectives. Course helps fulfill some training requirements of the Texas A&M University-Corpus Christi guidelines for scientific diving.

ESCI 6203 Professional Skills for Scientists
2 Semester Credit Hours
Presentation and discussion of professional skills of practicing scientists including literature searches, evaluation of information sources, oral and written communication skills, lifelong learning, careers and professional opportunities.

ESCI 6230 Oil Spill Management Theory
2 Semester Credit Hours (2 Lab Hours)
REVIEW OF LAWS AND REGULATIONS GOVERNING OIL SPILL PREVENTION AND RESPONSE. CURRENT METHODS FOR CONTROL, CONTAINMENT, COUNTERMEASURES, REMOVAL, AND DISPOSAL OF OIL SPILLS IN AN ENVIRONMENTALLY SAFE MANNER. DEVELOPMENT OF A SPILL MANAGEMENT TEAM INCORPORATING THE ELEMENTS OF INCIDENT COMMAND.

ESCI 6270 Hazardous Waste Treatment Technologies Theory
2 Semester Credit Hours (2 Lecture Hours)
REVIEW OF THE LAWS AND REGULATIONS OF HAZARDOUS WASTE MANAGEMENT FROM AN HISTORICAL PERSPECTIVE FOLLOWED BY REPORTS ON CURRENT TECHNIQUES FOR HANDLING, REDUCING, AND DISPOSING OF HAZARDOUS WASTES IN AN ENVIRONMENTALLY SAFE MANNER.

ESCI 6302 Federal Environmental Laws and Regulations
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of case histories involving the application of state and federal environmental laws and regulations. Review of permits, waste registrations, manifests, self-reporting and inspection reports.

ESCI 6310 Fundamentals of Remote Sensing
3 Semester Credit Hours (3 Lecture Hours)
Fundamental theory of satellite/airborne remote sensing techniques, sensor performance and calibration, and the scientific applications for land, ocean and atmosphere observations. Topics include physical principles of remote sensing, radiometry, sensors and sensor technology from infrared to microwave sensing, and scientific applications for land, ocean and atmosphere observations.

ESCI 6314 Biogeochemical Processes
3 Semester Credit Hours
Water and element cycling in the atmospheric, hydrosphere and geosphere. Microbial interactions and physical processes will be emphasized.
Prerequisite: CHEM 1311, 1312 and GEOL 1403 or ESCI 1401 or 3351.

ESCI 6320 Advanced Environmental Health
3 Semester Credit Hours
Advanced study of the toxicology and epidemiology of pollutants in the air, water and soil. Associations of environmental exposure with adverse health effects such as cancer, cardiovascular disease and reproductive outcomes, also chemical markers and symptoms of disease. Pollutants studied include lead, asbestos, radiation, radon, noise, metals, halogenated hydrocarbons, aromatic hydrocarbons, silica, indoor air quality, formaldehyde, and outdoor air pollutants.

ESCI 6321 Advanced Soil and Groundwater Restoration
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of methods for restoring contaminated soil and groundwater by examining the factors and processes influencing the efficacy of remediation systems. An emphasis will be placed on the scientific principles upon which soil and groundwater remediation is based.

ESCI 6322 Industrial Hygiene
3 Semester Credit Hours
Health protection practices in the industrial environment. Health basis for OSHA laws, regulations. Sampling and testing procedures.

ESCI 6324 Advanced Industrial Toxicology
3 Semester Credit Hours (3 Lecture Hours)
Advanced review of human physiology, general concepts of toxicology, dose-response relationship, interactions between the host and the agents, risk assessment, to provide a fundamental understanding of toxicology related to the chemicals in the workplace.

ESCI 6332 Advanced Wetlands and Water Quality
3 Semester Credit Hours (3 Lecture Hours)
Introduction to wetland ecosystems (natural, constructed and restored) with an emphasis on the role of wetlands in water quality. Topics include wetland systems, their history and role in society, relationships between biology, geology, ecology, hydrology and chemistry in wetland environments.
Prerequisite: BIOL 3428 and CHEM 4443 or ESCI 3443.

ESCI 6340 Ocean Resources
3 Semester Credit Hours (3 Lecture Hours)
Investigation of topics related to the discovery, distribution, and exploitation of marine resources of the ocean with a focus on the Gulf of Mexico, including the impact of resource exploitation on biological systems, and the development of marine policy.

ESCI 6345 Living with Coastal Hazards
3 Semester Credit Hours (3 Lecture Hours)
Study of how coastal processes, such as hurricanes, sea-level rise, and erosion, intersect with human activities to create hazardous conditions and how society responds to these conditions, presented through discussion, case studies, and field trips.

ESCI 6359 Ecosystem Dynamics
3 Semester Credit Hours (3 Lecture Hours)
Investigation of the interactions between organisms and physical processes that regulate marine ecosystem functions.

ESCI 6360 Coastal Management and Ocean Law
3 Semester Credit Hours (3 Lecture Hours)
The legal and policy framework associated with the coastal zone and ocean environment. Public access to coastal lands and waters, public trust, wetlands regulation; international law of the sea, fisheries law, and marine pollution.

ESCI 6365 Managing Occupational Safety and Accident Prevention
3 Semester Credit Hours (3 Lecture Hours)
This course provides students with advanced knowledge of regulatory requirements on occupational safety and practical techniques on accident prevention in the work environment.

ESCI 6380 Environmental Management Systems
3 Semester Credit Hours (3 Lecture Hours)
This course explores the systems management approach used by businesses and governments to promote environmental quality and sustainability. EMS and ISO 14001 standards go beyond minimally acceptable environmental compliance.
ESCI 6408 Environmental Microbiology  
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)  
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.  
Prerequisite: BIOL 2421.

ESCI 6416 Advanced Geochemistry  
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)  
Advanced study of the Earth processes using principles of chemical equilibrium, thermodynamics, isotope geochemistry and organic geochemistry. Applications of low-temperature geochemistry to geologic problems.

ESCI 6480 Environmental Site Assessment  
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)  
Interdisciplinary application of environmental regulations, risk assessment to specific examples. Knowledge of United States environmental regulations assumed; ESCI 4301 or ESCI 6203 - Professional Skills for Scientists recommended.

ESCI 6590 Advanced Topics  
1-5 Semester Credit Hours (1-5 Lecture Hours)  
Advanced study in a specific area of environmental science. May be repeated for credit when topics vary. Offered on sufficient demand.

ESCI 6596 Directed Independent Study  
1-5 Semester Credit Hours (1-5 Lecture Hours)  
Study in areas of current interest. (A total of six hours of Directed Independent Study may be counted toward the MS degree.)

### Fisheries and Mariculture, MS

#### Program Description

The Fisheries and Mariculture Program offers an M.S. degree with a choice of emphasis in either fisheries or mariculture. Our students enjoy a low student-faculty ratio and opportunities to study ecologically and commercially important Gulf of Mexico and Texas species. Students entering the program have the opportunity to receive financial support from assistantships, fellowships, or scholarships awarded by the university and by private and public agencies. Returning Peace Corps volunteers who have completed their assignment are eligible for the Paul D. Coverdell Fellowship.

Faculty members supervise student research on topics such as fisheries ecology, larval physiology, habitat restoration, aquatic animal culture, diseases, and nutrition. Students may conduct their research at university facilities and in the surrounding aquatic environments, as well as nearby partner institutions, including the Texas A&M AgriLife Mariculture Research Facility, Texas Parks and Wildlife Department Marine Development Center fish hatchery, and Texas State Aquarium.

Our students acquire the cutting edge science and technological skills necessary for positions in public and private sectors of the fisheries and mariculture industries, as well as undertaking research allowing them to pursue further studies at the Ph.D level. Student research topics are as varied as FAMA faculty expertise and have included fish culture for stock enhancement, ocean acidification, algae biofuels, use of biofloc in the culture of Pacific white shrimp, disease, and relative value of estuarine habitats for finfish and crustaceans. Faculty and student researchers use an array of quantitative research tools including molecular techniques, statistical analysis and GIS, as well as traditional field sampling methods.

### Student Learning Outcomes

Students will:

- Exhibit their mastery of the subject knowledge and skills in the field of fisheries or mariculture.
- Work closely with their graduate advisors and committee members to develop a formal academic plan that outlines the progression of their academic path, provides opportunities to learn and use the scientific method, is grounded in the principles of fisheries or mariculture, and includes experiences that are appropriate for their chosen career path.
- Demonstrate the ability to collect data, to organize and interpret data in the context of the relevant literature, and then to accurately describe their findings (orally and in writing).
- Develop an advanced skill set and record of contributions to the discipline such that they can continue in academia or secure employment in federal, state, or local agencies, in private companies, or in non-governmental organizations where they can apply the skills and knowledge acquired in the program.

### For Additional Information

**Website:**
http://fama.tamucc.edu

**Campus Address:**
Tidal Hall, Room 309  
phone (361) 825-2754

**Mailing Address:**
Fisheries and Mariculture Program,  
Unit 5800  
College of Science and Engineering  
Texas A&M University – Corpus Christi  
6300 Ocean Drive  
Corpus Christi, Texas 78412-5800

### Admission Requirements

Individuals seeking admission to the Fisheries and Mariculture (FAMA) Program should apply through the Office of Recruitment and Admissions. In addition to the basic university requirements, the Fisheries and Mariculture Program requires that applications from potential students include an essay explaining the student’s educational and career goals, three letters of evaluation from people familiar with their potential for graduate studies, transcripts of all previous undergraduate/graduate work, and Graduate Record Examination (GRE) scores that are not more than five (5) years old. Applicants must include a list of the TAMU-CC faculty members they contacted concerning mentorship prior to application submission. Although most faculty members in the Department of Life Sciences can mentor a FAMA student, the Fisheries and Mariculture Program Coordinator can provide a current list of faculty actively involved in the FAMA Program and a description of their research. Additional requirements exist for international students. These include TOEFL or IELTS scores from ETS taken within the last two (2) years for students from countries where English is not the native language and a course-by-course foreign transcript evaluation through an approved service (refer to the Admissions section of this catalog). All relevant supplemental materials (such as publications or resumes that include information about relevant experiences) that are submitted with the application will be considered. Send application...
documents to the Office of Recruitment and Admissions. A campus visit, including personal interviews with prospective faculty mentors, is highly recommended. Persons seeking admission to the M.S. Program in Fisheries and Mariculture should first contact program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Completed applications must be received by the Office of Recruitment and Admissions by the specified priority deadlines:

- Fall Semester: February 1
- Spring Semester: August 1

Incomplete applications are not considered. The applicant will be notified of acceptance or rejection by letter.

Teaching assistantships and graduate research assistantships may be available to admitted degree-seeking students who maintain full-time graduate student status (9 hours/fall and spring semester, and 3 hours/summer). The completed Teaching Assistant Application (http://gradcollege.tamucc.edu/funding/assistantships.html) and all other materials requested for evaluation should be submitted to the office indicated on that form. For full consideration, the deadline for submitting applications is February 1 for fall semester and August 1 for spring semester. Faculty members conducting funded research projects often hire qualified graduate students as Research Assistants. Students will need to contact faculty members in their field of interest for information on these opportunities.

Non-degree students may enroll in courses for which they have adequate academic preparation, but they may not apply more than nine credit hours of work taken in non-degree status to a graduate degree program. Non-degree students must consult with the Fisheries and Mariculture Program Coordinator to determine those courses in which they may enroll and those courses they may later apply to a Fisheries and Mariculture degree, should they be admitted into the program. Students must earn a grade of "B" or better in each of the prescribed courses in order to have the courses apply to the plan of study.

**Program Requirements**

**Academic Preparation**

Students entering the Fisheries and Mariculture Program are expected to have a strong background in biological and physical sciences, with competencies equivalent to those required of Texas A&M University-Corpus Christi undergraduate biology majors (see the biology section of the undergraduate catalog). A student who lacks adequate academic preparation in a particular subject area, but who is otherwise well-qualified to enter the graduate program, may be required to complete appropriate leveling courses at the undergraduate level in addition to courses specified for the graduate degree. Such courses (4000-sequence or lower) do not count as credit towards the total required for completion of the graduate degree.

**Coursework and Research**

Courses and research for the graduate degrees are taken with the approval of the student's committee (or graduate advisor for Professional track students). Students must demonstrate that the selection of classes or research projects produces a coherent course of study focused on the student's particular area of emphasis. Depending on the emphasis area, elective and specialized coursework selections may be chosen from biology, chemistry, coastal and marine system science, computer science, environmental science, geographic information science, geology, marine biology, mathematics, or other course offerings as approved by the student's committee (or graduate advisor for Professional track students).

The Fisheries and Mariculture Program requires 36 semester hours of coursework. Classes or research projects designated as part of the specialized coursework requirement must receive the approval of a student's committee (or graduate advisor for Professional track students).

In order to remain in good standing, as well as eligible for university funding such as scholarships and assistantships, the university requires graduate students to maintain a minimum grade point average of 3.0 ("B") on a 4.0 scale for all graduate work undertaken. Please note that TAMUCC calculates GPA based on all graduate coursework taken at TAMUCC and not just coursework in the degree program. Students should ensure they are knowledgeable about both overall GPA required for good standing as well as GPA in the program in which they are enrolled. Further information on GPA requirements, including scholastic probation, for graduate students may be found in the Master's Student Handbook from the College of Graduate Studies website.

**Format and Style of Theses and Professional Papers**

The thesis and professional paper must follow format requirements established in the Fisheries and Mariculture Graduate Handbook and College of Graduate Studies Handbook (ProQuest submission) and must be approved and signed by the members of the student’s committee (or graduate advisor for Professional track students) and others as necessary. For more information, consult the College of Graduate Studies (https://gradschool.tamucc.edu/).

Once the thesis is completed and approved by the committee, the results of the research must be presented orally and publicly. The final defense/oral examination usually takes place immediately following the seminar. Professional track students will not be required to present a public graduate defense seminar at the conclusion of the program, but must have their professional paper approved by their graduate advisor and qualified member of the organization providing the internship, in combination with a final oral examination. Graduate students are expected to present their research at a scientific meeting (other than their graduate seminar) prior to graduation.

Upon approval by a student's committee (or graduate advisor for Professional track students), a copy of the thesis/professional paper and appropriate forms will be submitted as noted in the Fisheries and Mariculture Handbook and College of Graduate Studies Handbook (ProQuest submission).

**Final Presentation and Examination**

All students must successfully present a summary of their research or internship results and complete a comprehensive oral examination during their final semester. During their last semester, thesis students must enroll in FAMA 5102 Graduate Defense Seminar (1 sch). To successfully complete this requirement, thesis students must

1. present and defend their thesis research in front of an audience including his/her committee, peers, and other faculty, and
2. pass a final oral examination.
Professional track students are required to enroll in FAMA 5397 Professional Paper Submission (3 sch) during their final semester and must

1. present and defend their professional paper to their graduate advisor and qualified member of the organization providing the internship, and
2. pass a final oral examination.

This examination will be administered by the student’s graduate advisory committee (or graduate advisor and qualified member of the organization providing the internship) and will include topics related to:

1. all graduate coursework undertaken in the Fisheries and Mariculture Program,
2. the student’s internship or research project, and
3. broad concepts of fisheries or mariculture, including a familiarity with the literature and pertinent professional societies.

Students are responsible for scheduling the presentation and oral examination with their graduate advisory committees (or graduate advisor for Professional track students). A student failing to successfully complete the comprehensive oral examination may repeat it once by the end of the next long semester. A student failing the oral examination for the second time will be terminated from the program.

The Master of Science in Fisheries and Mariculture

The MS in Fisheries and Mariculture requires 36 semester hours of coursework. A student may request approval for transfer of a maximum of nine (9) semester credit hours of graduate courses from other colleges to a MS in Fisheries and Mariculture degree plan. Thesis students may change from Thesis to Professional option at any time with the approval of their graduate advisor. Specific option/degree requirements must be met.

Professional Option

The Professional track Master’s Degree is designed to provide a broad understanding of fisheries or mariculture and is focused upon practical, hands-on experience in fisheries or mariculture techniques. The ultimate goal of this option is to provide students with the skills and techniques needed to improve their opportunity for employment within the industry. Students are required to undertake an extensive internship program with an approved agency, institution or commercial operation. The Professional track is substantially different from that of the Thesis option in that:

1. Professional track students will not need to form a graduate advisory committee upon acceptance to the Program. Instead, students will be supervised by a designated FAMA advisor (member of the faculty) and a qualified member of the organization providing the internship.
2. Professional track students will enter into an internship agreement with the sponsor to maintain a jointly-determined training schedule with specific objectives. These objectives will be in-line with hiring guidelines for the sponsoring entity and will be conducted as part of FAMA 5998 Internship (1-9 sch).
3. Upon completion of the internship, professional track students will be required to write a professional paper discussing a particular aspect of their training. This document should be designed for publication in a trade journal, agency bulletin, or similar publication. The topic and format of the document will be approved by the faculty advisor and agent of the sponsor.
4. Professional track students will not be required to present a public graduate defense seminar at the conclusion of their program.

To graduate under the Professional track degree plan, a student must complete a minimum of 36 graduate semester credit hours. Students must take FAMA 5370 Mariculture (3 sch) or FAMA 5328 Fisheries Ecology and Management (3 sch), depending on the track, MATH 6315 Statistical Methods in Research I (3 sch), and FAMA 5397 Professional Paper Submission (3 sch). Depending on the student’s focus in fisheries or mariculture, either FAMA 5312 Mariculture Techniques (3 sch) or FAMA 5329 Fisheries Techniques (3 sch) is also required. The residual hours needed to complete the degree plan will be achieved via FAMA 5998 Internship (1-9 sch), which may range from 12-18 hrs, and other graded elective coursework. FAMA 5397 Professional Paper Submission (3 sch) should be taken in the last semester of the student’s academic tenure.

Success in completion of the FAMA Professional track option will be determined by the following factors:

1. satisfactory completion of the internship in a timely manner;
2. assessment by the sponsor and faculty advisor;
3. quality of the professional paper; and
4. successful completion of the comprehensive oral examination.

Satisfactory completion of the internship will be determined jointly by the sponsor and academic advisor. Assessment will typically be in the form of a professional interview.

Mariculture Professional Option Degree Plan

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FAMA 5312</td>
<td>Mariculture Techniques</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5370</td>
<td>Mariculture</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6315</td>
<td>Statistical Methods in Research I ^</td>
<td>3</td>
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Mariculture Professional Option

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FAMA 5315</td>
<td>Diseases and Parasites of Aquatic Organisms</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5397</td>
<td>Professional Paper Submission</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5421</td>
<td>Chemistry of Natural Waters</td>
<td>4</td>
</tr>
<tr>
<td>FAMA 5998</td>
<td>Internship (maximum of 18 sem. hrs.)</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Elective, specialized and topical coursework at the discretion of the graduate advisor 1,2

Total Hours 20-36

1 0-8 semester hours that will then meet the minimum of at least 36 hours required to graduate with the M.S. Degree.
2 Elective, specialized or topical coursework must be approved by the student’s Graduate Advisor in order to be counted for credit towards the graduate degree.
^ Online offering
^ Blended offering

Fisheries Professional Option Degree Plan

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FAMA 5328</td>
<td>Fisheries Ecology and Management ^</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5329</td>
<td>Fisheries Techniques</td>
<td>3</td>
</tr>
</tbody>
</table>
Four courses form the required research component of the degree for MS graduate semester credit hours.

Elective, specialized and topical coursework at the discretion of the graduate advisor 1,2

Total Hours 19–36

1 6-15 semester hours that will then meet the minimum of at least 36 hours required to graduate with the M.S. Degree.

2 Elective, specialized or topical coursework must be approved by the student’s Graduate Advisor in order to be counted for credit towards the graduate degree.

* Online offering

^ Blended offering

Thesis Option

The thesis option for a Master’s Degree requires a thesis based upon original research conducted during the period that the student is enrolled at Texas A&M University-Corpus Christi. The research must include a review of relevant literature, a description of the results from original research on a topic approved by the committee, statistical analysis as appropriate, and an appropriate discussion of the results. To graduate under the thesis degree plan, a student must complete a minimum of 36 graduate semester credit hours.

Four courses form the required research component of the degree for MS (thesis):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FAMA 5932</td>
<td>Thesis Proposal</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5933</td>
<td>Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5940</td>
<td>Thesis Submission</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5102</td>
<td>Graduate Defense Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Mariculture Thesis Option Degree Plan

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>FAMA 5312</td>
<td>Mariculture Techniques</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5370</td>
<td>Mariculture</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6315</td>
<td>Statistical Methods in Research I ^</td>
<td>3</td>
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Mariculture Thesis Option

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FAMA 5102</td>
<td>Graduate Defense Seminar</td>
<td>1</td>
</tr>
<tr>
<td>FAMA 5392</td>
<td>Thesis Proposal</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5393</td>
<td>Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5394</td>
<td>Thesis Submission</td>
<td>3</td>
</tr>
<tr>
<td>FAMA 5397</td>
<td>Internship (maximum of 18 sem. hrs.)</td>
<td>1–9</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6316</td>
<td>Statistical Methods Research II ^</td>
<td>3</td>
</tr>
<tr>
<td>CMSS 6323</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective, specialized and topical coursework at the discretion of the graduate advisor 1,2,3

Total Hours 36

1 14 semester hours that will then meet the minimum of at least 36 hours required to graduate with the M.S. Degree.
FAMA 5315 Diseases and Parasites of Aquatic Organisms
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
Identification, epizootiology and control of viral, bacterial, fungal, parasitic and nutritional diseases of commercially cultured molluscs, crustaceans and fish.
Co-requisite: SMTE 0092.

FAMA 5322 Aquaculture Business Planning
3 Semester Credit Hours (3 Lecture Hours)
The application of economic and business principles to the development of commercial and developmental aquaculture projects in order to maximize efficiency of operation and profitability. Students are introduced to project concept, risk management, business planning, financing, aquaculture marketing and development of financial documents.

FAMA 5327 Marine Restoration Ecology
3 Semester Credit Hours (3 Lecture Hours)
Overview of the rapidly expanding practice of restoring degraded marine, estuarine, and coastal ecosystems. Teaching methods will include lectures, discussion, paper critiques, field visits, and restoration plans. Course will explore ecological theory as it applies to restoration, restoration planning and implementation strategies, and controversies surrounding the practice of restoration.

FAMA 5328 Fisheries Ecology and Management
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project.

FAMA 5329 Fisheries Techniques
3 Semester Credit Hours (2 Lecture Hours, 3 Lab Hours)
Designed to provide students with practical experience in the theory and application of traditional and modern fisheries sampling and management techniques with an emphasis on practical sampling design and data interpretation. This is a hands-on field and laboratory based course that will develop skills that are commonly used by fisheries scientists and sought be future employers.
Co-requisite: SMTE 0091.

FAMA 5332 Aquatic System Design
3 Semester Credit Hours (3 Lecture Hours)
The study of aquatic system engineering and design for aquaculture farms, hatcheries, recirculating systems and research facilities. Additional topics covered include aquaculture site selection criteria and use of computer-aided design software.

FAMA 5338 Applied Fisheries Statistics
3 Semester Credit Hours (3 Lecture Hours)
Data analysis is a critical component in fisheries research and management. Throughout this course, the students will learn to practice the series of data analysis and techniques that are relevant to fisheries science, with the aids of the personal computer software.

FAMA 5355 Public Aquarium and Animal Care Operations
3 Semester Credit Hours (3 Lecture Hours)
This course examines the unique requirements needed for aquariums and zoos to balance animal care and health with public display for general education and conservation research.
Co-requisite: SMTE 0091.

FAMA 5370 Mariculture
3 Semester Credit Hours (3 Lecture Hours)
Survey of physiological, behavioral, environmental and economic parameters governing the culture of selected aquatic species. Included are techniques and methods employed worldwide to produce various marine species.

FAMA 5392 Thesis Proposal
3 Semester Credit Hours (3 Lecture Hours)
Thesis students must submit a completed proposal for their thesis project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for FAMA 5393 - Thesis Research.

FAMA 5393 Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll.
Prerequisite: FAMA 5392.

FAMA 5394 Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
Completion of the final draft of the thesis, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll.
Prerequisite: FAMA 5392 and (FAMA 5393 or 5393*).
* May be taken concurrently.

FAMA 5397 Professional Paper Submission
3 Semester Credit Hours
Completion of the final draft of the professional paper (professional track students), signed by the graduate committee. A course section will be created for the student to enroll.
Prerequisite: FAMA 5998.

FAMA 5421 Chemistry of Natural Waters
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The examination of water as an environmental medium and how it may be monitored and managed for maximizing the growth and survival of various aquatic species.
Prerequisite: CHEM 1411.
Co-requisite: SMTE 0093.

FAMA 5436 Marine Ecological Processes
4 Semester Credit Hours (4 Lecture Hours)
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

FAMA 5590 Special Topics
1-5 Semester Credit Hours (1-5 Lecture Hours)
In-depth study and discussion of selected topics relevant to mariculture or fisheries. May be repeated when topics vary.

FAMA 5596 Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of mariculture or fisheries interest.
FAMA 5940 Project Research
1-9 Semester Credit Hours
Research related to the MS project. Students can only apply 6 hours of credit toward the MS degree in Fisheries and Mariculture with approval of the committee.

FAMA 5998 Internship
1-9 Semester Credit Hours
Professional Track students are required to undertake an extensive internship program with an approved agency, institution, or commercial operation to develop skills and techniques relating to fisheries science or the culture of aquatic species. Students will participate in internship activities at selected aquaculture or fisheries facilities.

Marine Biology, MS

Program Description
The Marine Biology Program is designed for students with an interest in one or more of the subdisciplines of marine biology who wish to pursue careers in higher education, government, or private industry. This degree program combines the strength of a diverse, internationally recognized faculty with high scholarly productivity and extramural funding. Additionally, Texas A&M University – Corpus Christi is located on the Gulf of Mexico, facilitating hands-on learning and research. Students can choose from a variety of classroom and field learning experiences and form committees with any participating faculty.

The Marine Biology program offers the Master of Science and the Doctor of Philosophy degrees in Marine Biology. A personalized graduate advisory committee guides each student through the conception, design, construction, and execution of marine biology-based inquiry.

Student Learning Outcomes
As part of their progression through the Marine Biology Program, Master of Science students will:

• Gain an in-depth of knowledge of essential and emerging concepts in the field of marine biology.
• Perform scholarly hypothesis-driven research grounded in marine biological principles and concepts.
• Demonstrate advanced communication skills through either presentation of research results at professional scientific meetings and/or through peer-reviewed publication.
• Develop a skill set and research record such that they can secure employment in academia, state/federal agencies, private companies, or non-governmental organizations.

For Additional Information

Campus Address:
Tidal Hall, Room 309
Phone: (361) 825-2754

Mailing Address:
Marine Biology Program, Tidal Hall 309
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412

Admission Requirements
Those seeking admission to the Marine Biology Program should apply online through the Office of Recruitment and Admissions. In addition to the documents required by that office, applicants must submit an essay of no more than 1,000 words describing their educational and career goals, and interests as they relate to the faculty in the Marine Biology Program; a list of names of program faculty members contacted; three letters of recommendation from people familiar with their potential for graduate studies; transcripts of all previous undergraduate/graduate work; Graduate Record Examination (GRE) scores that are not more than 5 years old; and a résumé. Additional requirements exist for international students, including TOEFL or IELTS scores from ETS taken within the last two years for students from countries where English is not the native language, and a course by course foreign transcript evaluation through an approved service (refer to the Admission section of this catalog). All relevant supplemental materials (such as publications or other documents that include information about relevant experiences) that are submitted with the application will be considered. Persons seeking admission to the M.S. Program in Marine Biology should first contact the program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Completed applications must be received by the Office of Recruitment and Admissions by the specified priority deadlines:

• Fall Semester - December 1
• Spring Semester - June 1

Incomplete applications will not be considered. The applicant will be notified of acceptance or rejection by letter.

Teaching assistantships, graduate research assistantships, and fellowships may be available to admitted degree-seeking students who maintain full-time graduate student status (9 hours/fall and spring semester, and 3 hours/summer). The completed Teaching Assistant Application (https://gradcollege.tamucc.edu/funding/index.html (https://gradcollege.tamucc.edu/funding/)) and all other materials requested for evaluation should be submitted as per instructions on that form. For full consideration, the deadline for submitting applications is December 1 for the following academic year. A limited number of fellowships are available, and faculty members conducting funded research projects often hire qualified graduate students as Research Assistants. Students will need to contact faculty members in their field of interest for information on these opportunities.

Academic Preparation
Students entering the Marine Biology Program are expected to have a strong background in biological and physical sciences, with competencies equivalent to those required of biology majors graduating from Texas A&M University-Corpus Christi (see the biology section of the undergraduate catalog). Students lacking adequate academic preparation in a particular subject area, but who are otherwise well-qualified to enter the graduate program, may be required to complete appropriate undergraduate course work in addition to that specified for the graduate degree. Such courses (4000-sequence or lower) are regarded as foundation or leveling work and do not count as credit towards the total required for completion of the graduate degree.
Program Requirements

Advising and the Graduate Advisory Committee

After being accepted in the Marine Biology (MARB) program and enrolling, the student must form a graduate advisory committee (GAC). Students should form a graduate advisory committee with the approval of their advisor by the end of their first long semester in the MARB program to help them through their degree program. Students are strongly encouraged to meet with their committee at a minimum of once per year to seek continual guidance on their research program.

Composition and size of the committee should reflect the scope of the intended graduate studies and should be developed with substantial input from the student’s advisor(s). The advisor(s) will serve as chair(s) of the committee. The majority of the committee members must be members of the Marine Biology Participating Graduate Faculty. Recognized scholars who are not a member of the TAMU-CC graduate faculty may serve on a student’s committee by submitting a letter of request from the advisor, through the TAMU-CC Marine Biology Program Coordinator, with the individual’s resume attached as well as a completed “Form 2 (https://gradcollege.tamucc.edu/contact_us/forms.html)” from CGS (Graduate Faculty Status Application). The scholar may serve upon approval of the TAMU-CC CGS. Only one CGS appointed scholar may be counted toward the minimum committee member composition.

For Masters of Science in Marine Biology degrees, the committee shall consist of no fewer than three members, two of which must belong to the MARB Graduate Faculty, including the advisor(s). The Chair (and/or Co-Chair) must be a member of the MARB Graduate Faculty.

Enrollment Requirements

All students are required to maintain continuous registration until completion of all requirements for graduation unless a specific leave of absence is granted in writing by the department. Students funded through scholarships, fellowships and assistantships are required to maintain a minimum of 9 hours/fall and spring semester, and 3 hours/summer. To meet enrollment requirements after completing all formal coursework on the degree plan, a student may register for MARB 5940 Master’s Project Research (1-9 sch).

Coursework and Research

The MS in Marine Biology is designed for graduate students who wish to become knowledgeable leaders and professionals with an in-depth education and specialized skills in the field. Students will develop a sense of creative independence that will allow them to practice in and contribute to a variety of professions and fields of scholarship. A student may request approval for transfer of a maximum of nine semester credit hours of graduate courses from other colleges to a MS in Marine Biology degree plan. Students must demonstrate to the GAC that the selection of classes or research projects produces a coherent course of study focused on the student’s particular area of emphasis.

1. Specialized and Elective Coursework

   Depending on the emphasis area, elective and specialized coursework selections may be chosen from biology, biomedical sciences, chemistry, coastal and marine system science, computer science, environmental science, geographic information science, geospatial surveying engineering, geology, fisheries and mariculture, mathematics, or other course offerings as stipulated and approved by the GAC. Courses or research projects designated as part of the specialized coursework requirement must receive the approval of a student’s GAC.

2. Coursework Requirements and Limitations

   The program specifies the minimum number of semester credit hours (SCH) that must be earned from regular, graded (non-research, non-variable credit) coursework: for MS thesis students, 23 of 32 total hours.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARB 6312</td>
<td>Communicating Science Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6340</td>
<td>Marine Organisms and Processes</td>
<td>3</td>
</tr>
<tr>
<td>MARB 6341</td>
<td>Evolution and Genomics of Marine Organisms</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6315</td>
<td>Statistical Methods in Research I ^ *</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Thesis Option</td>
<td></td>
</tr>
<tr>
<td>MARB 5392</td>
<td>Thesis Proposal</td>
<td>3</td>
</tr>
<tr>
<td>MARB 5393</td>
<td>Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>MARB 5394</td>
<td>Thesis Submission</td>
<td>3</td>
</tr>
<tr>
<td>Select 11 hours of elective, specialized, and topical coursework</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>32</td>
</tr>
</tbody>
</table>

   1. Students must enroll in MARB 5394 Thesis Submission (3 sch) during their last semester when their theses will be completed.
   * Online offering
   ^ Blended offering

Final Oral Defense Examination

Each student must pass a final oral defense examination during the last semester before graduation. Students should enroll in MARB 5394 Thesis Submission (3 sch) during the semester in which they are planning to defend their thesis and/or graduate. The student’s GAC administers this examination which covers topics related to:

1. all graduate coursework undertaken for the Marine Biology program,
2. the student’s specific research area, and
3. broad concepts of general and marine biology including familiarity with the literature.

The student is responsible for scheduling the defense with the faculty involved. A student who fails the defense may repeat it once after an interval of four months or more. If a student fails the second defense, the student will be terminated from the program.

Courses

- MARB 689 Special Topics
- 4 Semester Credit Hours (3 Lecture Hours)
MARB 5293 Thesis Research
2 Semester Credit Hours
Implementation of the Thesis Proposal and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll.
Prerequisite: MARB 5292.

MARB 5392 Thesis Proposal
3 Semester Credit Hours
Thesis students must submit a completed proposal for their thesis project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for MARB 5393 - Thesis Research. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

MARB 5393 Thesis Research
3 Semester Credit Hours
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: MARB 5392.

MARB 5394 Thesis Submission
3 Semester Credit Hours
Completion of the final draft of the thesis, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: (MARB 5392 and 5393).
* May be taken concurrently.

MARB 5397 Directed Research
3 Semester Credit Hours
Emphasis on experimental design as related to selected biological topics. Application of research skills. For M.S. students selecting the non-thesis option. Students may register for up to 9 semester hours, but only 3 semester hours will count towards a non-thesis degree. Directed Research is only open to M.S. students. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

MARB 5940 Master's Project Research
1-9 Semester Credit Hours
Research related to the M.S. project. Open only to M.S. students in marine biology with consent of the graduate advisor. Does not count as credit toward regular graded (non-research, non-variable credit) coursework for M.S. degree requirement in marine biology.

MARB 6310 Physiological Adaptations in Animals
3 Semester Credit Hours (3 Lecture Hours)
A study of the physiological adaptations of animals to their environment, including osmoregulatory and temperature regulatory mechanisms.
Prerequisite: BIOL 3430.

MARB 6312 Communicating Science Seminar
3 Semester Credit Hours (3 Lecture Hours)
Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.

MARB 6314 Aquatic Animal Nutrition
3 Semester Credit Hours (3 Lecture Hours)
The study of current concepts in aquatic animal nutrition including nutrient sources and requirements, deficiency effects, ingestive/digestive/metabolic processes, formulation and processing of feeds, and practical feeding considerations for selected aquatic species.

MARB 6327 Marine Restoration Ecology
3 Semester Credit Hours (3 Lecture Hours)
Overview of the rapidly expanding practice of restoring degraded marine, estuarine, and coastal ecosystems. Teaching methods will include lectures, discussion, paper critiques, field visits, and restoration plans. Course will explore ecological theory as it applies to restoration, restoration planning and implementation strategies, and controversies surrounding the practice of restoration.

MARB 6333 Marine Benthic Ecology
3 Semester Credit Hours (3 Lecture Hours)
The ecology of benthic assemblages with emphasis on species and habitats below diver depths. Micro to mesoscale spatial patterns, including bathymetric distribution, abundance and size-structure, diversity gradients, energetics and feeding strategies, and zoogeography of the benthos will be covered. Hydrothermal vents, cold seeps and sea mount fauna will receive special attention.

MARB 6335 Aquatic Microbiology
3 Semester Credit Hours (3 Lecture Hours)
Types and distribution of microorganisms in aquatic environments. Interactions with other organisms. Role in nutrient cycling, degradation of organic substances, pollution, water purification.
Prerequisite: BIOL 2420.

MARB 6340 Marine Organisms and Processes
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the biology of major plant and animal groups in the ocean. Students will also learn about important physical and chemical features of the oceans, and how these interact with marine life to regulate marine ecosystem function.

MARB 6341 Evolution and Genomics of Marine Organisms
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the evolutionary history of life in the ocean. Students will also learn about modern evolutionary theory, processes of speciation and processes which create diversity and adaptive capacity within species. Finally, the course will touch on functional genetics and the use of modern molecular techniques to understand organismal evolution and function.

MARB 6342 Genomics, Proteomics and Bioinformatics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to integrative biological study using genome-wide approaches and bioinformatics. The “-omics” technologies (Genomics, Proteomics, Metabolomics, etc.) will be surveyed for current and potential contributions to understanding biological function at molecular, cellular, organismal and ecosystem levels. Offered in Fall semester of odd-years only. Cross listed with BIOL 5340.
MARB 6343 Ocean and Human Health
3 Semester Credit Hours (3 Lecture Hours)
Oceans are increasingly recognized for their role in the health of the human population, both as a source of waterborne disease and a source of new bioactive (medicinal) agents. Indeed, healthy oceans are essential to the habitability of our planet – for humans and all other forms of life. Students will explore links between oceans, pollution, human well-being, ecosystem services, resource management, and the science and legislation governing the enforcement of water quality standards. This multidisciplinary subject will be addressed using a combination of lecture and discussion of primary literature. Offered in Fall semester of even-years only.

MARB 6353 Down the River: Ecology of Gulf Coast Fishes
3 Semester Credit Hours (3 Lecture Hours)
This course covers aspects of ecology and biogeography of riverine and estuarine fishes while exposing students to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike.
Co-requisite: SMTE 0091.

MARB 6362 Global Change and Its Impact on Aquatic Ecosystems
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the effects of climatic and anthropogenic change on aquatic ecosystem structure and function. Includes readings from the current literature and development of a research proposal. Cross-listed with CMSS 6362.

MARB 6363 Geomicrobiology
3 Semester Credit Hours (3 Lecture Hours)
An exploration of the interface between geological and biological processes focused on the mutual effects of microorganisms and Earth's chemistry. Topics include biomineralization, origin and evolution of life, microbial weathering and rock formation, and influences on environmental problems.

MARB 6371 Evolutionary Genetics
3 Semester Credit Hours (3 Lecture Hours)
An advanced introduction to evolutionary processes and their genetic basis, focusing on theoretical and experimental approaches to the study of population genetics, phylogeography, coalescence theory, evolutionary ecology, and molecular evolution.
Prerequisite: BIOL 2416.

MARB 6373 Marine Biodiversity and Conservation Science
3 Semester Credit Hours (3 Lecture Hours)
Biodiversity, including genetic diversity of individual populations to ecosystem diversity, will be addressed, with focus on the marine realm. Methods for assessing and quantifying diversity will be included. Threats to biodiversity, including resource extraction, invasive species, habitat alteration, global warming and ocean acidification, will be covered, as will techniques for recovering and restoring damaged ecosystems. Marine ecosystem management will be discussed, including marine protected areas, and state, federal and international fisheries and resource management issues.

MARB 6392 Dissertation Proposal
3 Semester Credit Hours
Ph.D. students must submit a completed proposal for their dissertation project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for MARB 6393 - Dissertation Research. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: MARB 6392.

MARB 6394 Dissertation Submission
3 Semester Credit Hours
Completion of the final draft of the dissertation, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: MARB 6392 and (MARB 6393 or 6393*).
May be taken concurrently.

MARB 6408 Microbial Ecology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.
Prerequisite: SMTE 0092.

MARB 6428 Fisheries Ecology
4 Semester Credit Hours (4 Lecture Hours)
FISHERIES ECOLOGY Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project. The laboratory will emphasize practical sampling design and data interpretation. SMTE 0091 is a co-requisite for this course. Documented completion of this safety training is required early in the semester for continued participation in this course.

MARB 6430 Marine Plankton
4 Semester Credit Hours (4 Lecture Hours)
Investigation of the systematics, distribution and ecology of marine plankton. Cross listed with BIOL 5430.
Co-requisite: SMTE 0091.

MARB 6431 Phycoreology
4 Semester Credit Hours (4 Lecture Hours)
Study of the major groups of freshwater and marine algae; morphology, ecology, systematics, life cycles and physiology. Laboratories emphasize collection, identification and culturing techniques.
Co-requisite: SMTE 0092.
MARB 6436  Marine Ecology
4 Semester Credit Hours (4 Lecture Hours)
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

MARB 6452  Ecology and Evolution of Fishes
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
This course covers aspects of fish ecology from individual, population, community, and ecosystem levels. We discuss the role of the environment on fish physiology and behavior, food-web dynamics, community assembly and diversity, ecosystem interactions, and anthropogenic impacts on fishes with a focus on conservation.
Co-requisite: SMTE 0091.

MARB 6590  Special Topics
5 Semester Credit Hours (5 Lecture Hours)
An advanced study of a biological topic. May be repeated with full credit in another area of marine biology.
Prerequisite: SMTE 0091*, 0092* or 0093*.
*May be taken concurrently.

MARB 6596  Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the M.S. or Ph.D. degree.

MARB 6940  Dissertation Project Research
1-9 Semester Credit Hours
Research related to the dissertation project. Open only to Ph.D. students in Marine Biology with consent of the graduate advisor. Does not count as credit toward regular graded (non-research, non-variable credit) coursework for Ph.D. degree requirement in Marine Biology.

Mathematics, MS

Program Description

Program Mission
The mission of the Graduate Mathematics program is to increase understanding and the ability to apply mathematics and statistics through in-depth study, novel applications, and research. The areas of emphasis are mathematics education and applications of mathematics and statistics. The faculty engages in research and scholarly activities at the forefront of their specialties, with established and developing connections with the mathematics, statistics, and education communities at large, and leads students through program research activities and projects or theses. The program prepares students for careers in education, science, and industry and serves the community by providing expertise to local schools, coastal industry, business, and research centers.

Program Tracks
Students pursuing the Master of Science degree with a major in Mathematics will choose between an Applied and Computational Mathematics, a Statistics option, and a Curriculum Content option. The Applied and Computational Mathematics option will especially benefit individuals employed in scientific, technical, or education fields who seek advancement or additional training to enhance their knowledge and skills. The statistics option prepares individuals to work with statistical data analysis in science, industry or business. The Curriculum option specifically addresses the needs of in-service teachers wishing to enhance their knowledge and skills in learning, teaching and understanding mathematics. In each option, a capstone product allows students to focus their coursework on broad applications. The Applied and Computational Mathematics option requires a thesis; the Statistics and the Curriculum Content option allows for a thesis or project. The thesis option starts with a broad foundation, and then encourages a specialized study culminating in a thesis based upon original research, supported by the mathematical literature. The thesis requirement for the master’s degree will allow a person to pursue advanced graduate study, or to obtain employment in most areas that require a detailed knowledge of a specific aspect of mathematics or statistics. The project allows a student to demonstrate particular ability with some part of the Curriculum Content or Statistics. The project will be an original work supported by a mathematical or statistics literature review. A thesis may be more scholarly oriented, while a project is more suited than a thesis to demonstrate practical experience and it may be broader in scope. The project is recommended for students targeting positions in applied science, industry or business, while the thesis may be more appropriate for students targeting academia and theory.

Fast Track Mathematics BS to Mathematics MS
The university allows the opportunity for high-achieving undergraduate students to count a select number of graduate credits toward their undergraduate degree and thereby obtain a graduate degree at an accelerated pace. Students interested in the Fast Track in Mathematics should see the undergraduate catalog.

Student Learning Outcomes
Students will:
• Demonstrate a command of principles of general mathematics at the graduate level.
• Recognize mathematics outside the realm of the classroom, and apply graduate level mathematical content as a matter of professional practice.
• Communicate mathematics effectively at the graduate level, in oral and written form, with appropriate use of technology.

For Additional Information
Website: http://math.tamucc.edu
Campus Address: Center for Instruction, Room 301
Phone (361) 825-3754
Mailing Address: Department of Mathematics and Statistics, Unit 5825
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5825

Admission Requirements
In addition to meeting all University requirements for admission to graduate study in degree-seeking status, applicants for the MS degree in mathematics must also submit an essay to the Office of Recruitment and Admissions: The essay, 300-500 words in length, should discuss
the applicant's educational and professional goals, pertinent work and undergraduate experience, and other factors relating to the chosen option for graduate study. If the applicant has a GPA below 3.0 in undergraduate mathematics courses, the essay should specifically address any factors that might have hampered the applicant's undergraduate study. One or more letters of recommendation specifically addressing an applicant's ability to do graduate level study of mathematics may be submitted to strengthen an application. The letters should be submitted directly to the Math Department at the time of application at:

Center for Instruction Room 301
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5825
Corpus Christi, TX 78412-5825

Persons seeking admission to the MS in Mathematics should first contact the program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Applicants are expected to enter the program with adequate academic preparation for their chosen option, as detailed in the degree requirements below. If the graduate committee determines that an applicant's preparation is deficient, the individual will be required to complete course work to remedy these deficiencies. Such course work will be regarded as leveling work, and will not count as credit towards the total required for completion of the MS degree in mathematics.

1. Applicants for the Applied and Computational Mathematics option should have the equivalent of an undergraduate mathematics major, or an undergraduate mathematics minor and a minor in science.

Specific leveling course work

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3315</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3311</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 4301</td>
<td>Introduction to Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Students with no computer programming experience may find themselves at a disadvantage in certain courses without an introductory programming course.

2. Applicants for the Statistics option should have the equivalent of an undergraduate mathematics major or statistics major, or an undergraduate mathematics or statistics minor and a minor in science.

Specific leveling course work is

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3311</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3342</td>
<td>Applied Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 3345</td>
<td>Statistical Modeling and Data Analysis</td>
<td></td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

Students with no computer programming experience may find themselves at a disadvantage in certain courses without an introductory programming course.

3. Applicants for the Curriculum Content option should have an interest in the teaching and learning of mathematics. Applicants seeking initial certification should consult the SMTE Coordinator or College of Education to make plans for certification. Applicants planning to teach at the post-secondary level should work closely with an advisor to plan electives and additional, appropriate course work. Specific leveling course work within Mathematics is

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2305</td>
<td>Discrete Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3311</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Requirements

The course of study for the MS program in mathematics consists of the components listed below. Graduation requirements are slightly different for the Applied and Computational Mathematics and Curriculum Content options.

Applied and Computational Mathematics Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Electives from mathematics or closely related field</td>
<td>15-18</td>
<td></td>
</tr>
<tr>
<td>MATH 5994</td>
<td>Proposal Research</td>
<td>6-9</td>
</tr>
<tr>
<td>MATH 5995</td>
<td>and Thesis</td>
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</tr>
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</table>

Total Hours 33-39

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Electives from mathematics or closely related field</td>
<td>15-18</td>
<td></td>
</tr>
<tr>
<td>MATH 5333</td>
<td>Numerical Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5336</td>
<td>Advanced Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5339</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5351</td>
<td>Real Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Select 15-18 hours from the following or closely related field. \(^1\) 15-18

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5341</td>
<td>Statistical Methods and Data Analysis</td>
<td></td>
</tr>
<tr>
<td>MATH 5342</td>
<td>Linear Statistical Models</td>
<td></td>
</tr>
<tr>
<td>MATH 5343</td>
<td>Mathematical Theory of Statistics</td>
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</tr>
<tr>
<td>MATH 5345</td>
<td>Computational Methods for Statistics</td>
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</tr>
<tr>
<td>MATH 5337</td>
<td>Theory and Applications of Partial Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 5348</td>
<td>Optimization</td>
<td></td>
</tr>
<tr>
<td>MATH 5360</td>
<td>Combinatorics and Graph Theory</td>
<td></td>
</tr>
<tr>
<td>MATH 5375</td>
<td>Applied Analysis</td>
<td></td>
</tr>
<tr>
<td>MATH 6344</td>
<td>Spatial Statistics</td>
<td></td>
</tr>
<tr>
<td>MATH 5993</td>
<td>Literature Review and Research</td>
<td></td>
</tr>
<tr>
<td>Thesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 5994</td>
<td>Proposal Research</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5995</td>
<td>Thesis</td>
<td>3-6</td>
</tr>
</tbody>
</table>

Total Hours 33-39

\(^1\) With prior approval from the Department Chair, a student may select offerings of MATH 5390 Special Topics (1-3 sch) or MATH 5396 Directed independent Study (3 sch) or graduate courses from outside the Department as electives.

Thesis

Each student in the Applied and Computational Mathematics option is encouraged to participate in the departmental seminar and may simultaneously take MATH 5994 Proposal Research (1-9 sch) for one to three semesters at a rate of 1 to 3 credit hours per semester. A total of three semester hours credit for MATH 5994 Proposal Research (1-9 sch) is required. The final time MATH 5994 Proposal Research (1-9 sch) is
taken, the student will prepare a thesis proposal. When a student is within 18 semester hours of graduation, the student may form a graduate committee and defend the proposal for the thesis. (Guidelines for writing the thesis, including the required format and style, are available at the department website.) Immediately upon approval of the thesis proposal, the student registers for MATH 5995 Thesis (1-9 sch), Thesis. The student continues to register for MATH 5995 Thesis (1-9 sch) each successive semester (Fall or Spring required, Summer by choice) until the thesis is completed. A student who does not complete a thesis in the semester for which the student has registered will receive a grade of IP (In Progress). Not completing a thesis in four long semesters, earning a grade of U or failure to register for MATH 5995 Thesis (1-9 sch) in the next semester after receiving a grade of IP will terminate the thesis and will require that the entire process be repeated starting with the preparation of a new proposal.

Each student in the Applied and Computational Mathematics option must defend their thesis, ordinarily during their final semester. The student's graduate committee will administer the defense. For more information, see the Department’s Thesis Guidelines.

Statistics Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Electives from mathematics or closely related field</td>
<td>15-18</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 5994</td>
<td>Proposal Research &amp; MATH 5995 and Thesis</td>
<td>6-9</td>
</tr>
<tr>
<td>MATH 5994</td>
<td>Proposal Research &amp; MATH 5997 and Project</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 33-39

Thesis or Project

Each student in the Statistics option must defend their thesis, ordinarily during their final semester. The student's graduate committee will administer the defense. For more information, see the Department’s Thesis Guidelines.

Curriculum Content Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
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<td>15</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>MATH 5993</td>
<td>Literature Review and Research &amp; MATH 5994 and Proposal Research</td>
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<tr>
<td>MATH 5995</td>
<td>Thesis or MATH 5997 Project</td>
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Total Hours: 36

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Core Courses</td>
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<td>15</td>
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<tr>
<td>Electives</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>MATH 5325</td>
<td>Structure of Number Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5326</td>
<td>Structure of Patterns and Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5327</td>
<td>Structure of Geometry and Measurement</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5328</td>
<td>Structure of Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5329</td>
<td>Structure of Modeling with Rates of Change</td>
<td>3</td>
</tr>
</tbody>
</table>

1 With prior approval from the Department Chair, a student may select offerings of MATH 5390 Special Topics (1-3 sch) or MATH 5396 Directed independent Study (3 sch) or graduate courses from outside the Department as electives.
Select 12 hours, with prior approval of the Department Chair, from the following or any course with significant and appropriate mathematical content:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>MATH 5321</td>
<td>Problem Solving and Mathematical Reasoning for Teachers</td>
</tr>
<tr>
<td>MATH 5322</td>
<td>Mathematics Assessment</td>
</tr>
<tr>
<td>MATH 5323</td>
<td>Mathematics instruction and Mentoring</td>
</tr>
<tr>
<td>MATH 5324</td>
<td>Principles of Reforming Mathematics Instruction</td>
</tr>
<tr>
<td>MATH 5331</td>
<td>Evolution of Mathematical Systems</td>
</tr>
<tr>
<td>MATH 5332</td>
<td>Integrating Technology in Mathematics Education</td>
</tr>
</tbody>
</table>

**Capstone Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5993</td>
<td>Literature Review and Research and Proposal Research</td>
</tr>
<tr>
<td>or MATH 5997</td>
<td>Thesis</td>
</tr>
<tr>
<td>or MATH 5997</td>
<td>Project</td>
</tr>
</tbody>
</table>

**Total Hours** 36

* Online offering
^ Blended offering

**Capstone Course**

All students in the Curriculum Content Option will take MATH 5993 Literature Review and Research (1-9 sch) as an introduction to relevant literature, research methods, followed by MATH 5994 Proposal Research (1-9 sch) to prepare and present a proposal. These courses serves as preparation for either a thesis or project.

1. Thesis or Project. A thesis requires a student to articulate a problem in mathematics education related to significant mathematical content, propose a solution, and collect and analyze data in creating a solution of the problem. A project requires a student to demonstrate his or her ability to undertake a significant curriculum development, perform the appropriate research needed to implement the development, and communicate orally and in writing their understanding of that process.

2. Students writing a thesis or project will prepare a proposal in MATH 5994 Proposal Research (1-9 sch) based on work done in MATH 5993 Literature Review and Research (1-9 sch). When a student is within 18 semester hours of graduation, the student may form a graduate committee and defend the proposal. Guidelines for writing the thesis or project, including the required format and style, are available on the Mathematics Department website. Immediately upon approval of the proposal the student registers for MATH 5995 Thesis (1-9 sch) or MATH 5997 Project (1-9 sch), as appropriate. The student continues to register for MATH 5995 Thesis (1-9 sch) or MATH 5997 Project (1-9 sch) each successive semester (Fall or Spring required, Summer by choice) until the thesis or project is completed. A student who does not complete a thesis or project in the semester for which the student has registered will receive a grade of IP (In Progress). Not completing a thesis or project in four long semesters, earning a grade of U or failure to register for MATH 5995 Thesis (1-9 sch) or MATH 5997 Project (1-9 sch) in the next semester after receiving a grade of IP will terminate the thesis or project and will require that the entire process be repeated starting with the preparation of a new proposal.

Each student in the Curriculum Content Option must defend their thesis or project, ordinarily during their final semester. The student's graduate committee will administer the defense.

**Courses**

**MATH 5310 Topics in Mathematics**

3 Semester Credit Hours (3 Lecture Hours)

May not be used for graduate credit towards the MS in mathematics. Course included to provide a suitable vehicle for anticipated future service courses.

**MATH 5315 Statistical Methods in Research I**

3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)

STATISTICAL METHODS IN RESEARCH I This course is for graduate students in other disciplines and is designed to prepare them to use statistical methods in their research. This is a non-calculus exposition of the concepts, methods and usage of statistical data collection and analysis. Topics include descriptive statistics, the t-test, the one and two-way analysis of variance, multiple comparison tests, and multiple regression. Students also learn how to conduct these analyses using computer software and how to properly report their findings.

**Prerequisite:** MATH 5315.

**MATH 5321 Problem Solving and Mathematical Reasoning for Teachers**

3 Semester Credit Hours (3 Lecture Hours)

An investigation of problems that span a variety of domains with a focus on making and evaluating mathematical arguments, using tools such as manipulatives and technology, identifying and analyzing the connections within and outside of mathematics, and using symbols and representations to communicate mathematical ideas.

**MATH 5322 Mathematics Assessment**

3 Semester Credit Hours (3 Lecture Hours)

A historical overview of assessment of mathematics, statistical description of norm- and criterion-reference tests, scaling of standardized exams, varieties of assessment and rubrics, the mathematical analysis of error patterns, and equity.

**MATH 5323 Mathematics instruction and Mentoring**

3 Semester Credit Hours (3 Lecture Hours)

A study of how the use of appropriate mathematical content can create and support a mathematics classroom environment in which students are engaged in mathematical problem solving and how to use these understandings to be effective in supporting teacher development.

**MATH 5324 Principles of Reforming Mathematics Instruction**

3 Semester Credit Hours (3 Lecture Hours)

This course introduces participants to the theory and practice of teacher-led inquiry within mathematics education. The course prepares teachers to engage in a school-based mathematics education action research project. It is intended for in-service mathematics teachers.
MATH 5325 Structure of Number Concepts
3 Semester Credit Hours (3 Lecture Hours)
An in-depth investigation of real and complex number systems, base ten and other number bases, operations and algorithms, divisibility, Euclidean algorithm, congruence, modular arithmetic, and the Fundamental Theorem of Arithmetic, with an emphasis on quantitative and qualitative reasoning.

MATH 5326 Structure of Patterns and Algebra
3 Semester Credit Hours (3 Lecture Hours)
Algebraic reasoning incorporating the use of technology. This course includes investigations of patterns, relations, functions, and analysis, with a focus on representations and the relationships among them.

MATH 5327 Structure of Geometry and Measurement
3 Semester Credit Hours (3 Lecture Hours)
An investigation of concepts and principles in geometry and measurement with emphases on deductive reasoning and on inductive reasoning with the use of dynamic geometry software.

MATH 5328 Structure of Probability and Statistics
3 Semester Credit Hours (3 Lecture Hours)
An investigation of the principles and applications of probability and descriptive and inferential statistics.

MATH 5329 Structure of Modeling with Rates of Change
3 Semester Credit Hours (3 Lecture Hours)
A study of rates of change through modeling. Direct applications of rates of change to number concepts, algebra, geometry, probability, and statistics.

MATH 5331 Evolution of Mathematical Systems
3 Semester Credit Hours (3 Lecture Hours)
Covers the evolution of mathematical concepts and thought from ancient to modern times, including women and men who played key roles, from original and secondary sources. Provides a better understanding of the historical development of larger context for topics studied in other courses, and deepens understanding and appreciation of these topics. This course is intended to benefit current and future mathematics teachers.
Prerequisite: MATH 5321.

MATH 5332 Integrating Technology in Mathematics Education
3 Semester Credit Hours (3 Lecture Hours)
An introduction to technology appropriate for the mathematics classroom, including calculators, CAS systems, handhelds, computer software and multimedia. This course is intended for in-service mathematics teachers at the middle/high school level.
Prerequisite: MATH 5321.

MATH 5333 Numerical Linear Algebra
3 Semester Credit Hours (3 Lecture Hours)
Prerequisite: MATH 3311.

MATH 5336 Advanced Differential Equations
3 Semester Credit Hours (3 Lecture Hours)
A continuation of MATH 3315, Differential Equations. Relying heavily on linear algebra concepts, this course covers linear systems of differential equations; introductory operator theory; existence, uniqueness and continuity of solutions; stability of equilibria; planar nonlinear systems; and the Poincaré-Bendixon Theorem. Several applications are covered to illustrate the mathematical concepts.
Prerequisite: MATH 3311 and 3315.

MATH 5337 Theory and Applications of Partial Differential Equations
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to study the mathematical theory and real-world applications of the three major categories of partial differential equations: elliptic equations, parabolic equations, and hyperbolic equations. Specific topics to be covered include: first-order equations, second-order elliptic equations, second-order parabolic equations, and second-order hyperbolic equations.
Prerequisite: MATH 3311, 3315, 4301 and 4315.

MATH 5339 Numerical Analysis
3 Semester Credit Hours (3 Lecture Hours)
Prerequisite: MATH 3311, 3315, 3470 and 4315 and (COSC 5311 or 1435).

MATH 5341 Statistical Methods and Data Analysis
3 Semester Credit Hours (3 Lecture Hours)
Introduction to the basic concepts of probability, common distributions, statistical methods, data analysis and a wide variety of statistical inference techniques. Demonstrations of the interplay between probability models and statistical inference. Data sets will be analyzed using the R software package.
Prerequisite: (MATH 3342 or 3345).

MATH 5342 Linear Statistical Models
3 Semester Credit Hours (3 Lecture Hours)
Prerequisite: MATH 3311, 3342 and 3470.

MATH 5343 Mathematical Theory of Statistics
3 Semester Credit Hours (3 Lecture Hours)
This course is intended for graduate students that need a solid background on statistical theory. This is a one-semester course in probability and mathematical statistics. Topics include: basic probability, random variables, transformations and expectations, distributions and important families thereof, multiple random variables, random samples, notions of convergence, and an overview of point estimates and hypothesis tests.
Prerequisite: MATH 3311, 3342 and 3470.

MATH 5344 Environmental Statistics
3 Semester Credit Hours (3 Lecture Hours)
SPATIAL STATISTICS An introduction to methods of spatial statistics commonly used in scientific settings. Topics include the nature of geospatial sampling, analysis and modeling of spatial point patterns, and development and analysis of common continuous spatial models such as kriging. Additional topics to be covered, as time and student interest permit, include Bayesian modeling, hierarchical environmental modeling, and spatiotemporal modeling. Use of appropriate software is emphasized.
Prerequisite: MATH 3342 or 5315.

MATH 5345 Computational Methods for Statistics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to computing tools needed by the modern statistician. Topics include: floating point numbers, reformatting large datasets, important statistical algorithms, and parallel processing.
MATH 5348 Optimization
3 Semester Credit Hours (3 Lecture Hours)
Unconstrained optimization, necessary and sufficient conditions for solutions, basic algorithms. Constrained optimization, KKT conditions, linear programming, convex programming, algorithms.
Prerequisite: MATH 4301.

MATH 5351 Real Analysis
3 Semester Credit Hours (3 Lecture Hours)
This course includes such topics as sequences and series of constants and functions, the Riemann integral, Fourier Series, and an introduction to Lebesgue measure and integration.
Prerequisite: MATH 4301.

MATH 5360 Combinatorics and Graph Theory
3 Semester Credit Hours (3 Lecture Hours)
Topics to include basic counting rules, connectivity, graph coloring and applications, chromatic polynomials, trees and their applications to searching and sorting, generating functions, recurrence relations, the Pigeonhole Principle, Eulerian and Hamiltonian chains and paths, and applications.
Prerequisite: MATH 2305 and 3313.

MATH 5370 Modeling of Natural Systems
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to expose science and technology majors to models of real problems arising in the environment and ecology. Students will learn how to create solvable models of the real world situations and how to find answers on the posted questions by using tools of mathematics and computing. There will be modeling and simulations of tides in the Gulf of Mexico, multi-species models of the food chains, circulation of carbon, water, and oxygen. Students will learn some new tools based on calculus and elementary statistics such as numerical algorithms, Monte-Carlo methods, Markov Processes, multivariate analysis, evaluation of stability, methods of extrapolation (predictions) and interpolations.
Prerequisite: (MATH 1442 or 2342) and (MATH 2413 or 5329).

MATH 5375 Applied Analysis
3 Semester Credit Hours (3 Lecture Hours)
Topics to include basic theory of Euclidean, Banach and Hilbert spaces, calculus of variations and optimal control, elements of system analysis, and elements of complex analysis. All theoretical topics will be illustrated by real application.
Prerequisite: MATH 4301 or 5351.

MATH 5378 Mathematical Modeling
3 Semester Credit Hours (3 Lecture Hours)
Modeling of applied problems using analytical, stochastic, and dynamical methods.

MATH 5390 Special Topics
1-3 Semester Credit Hours (1-3 Lecture Hours)
An advanced study of a mathematical topic. May be repeated with full credit in another area of mathematics. Topics vary by semester and offering.

MATH 5393 Literature Review and Research
3 Semester Credit Hours (3 Lecture Hours)
LITERATURE REVIEW AND RESEARCH METHODOLOGY Reading, analyzing, and synthesizing mathematics education research literature for the purpose of informing teaching practice. Includes a study of qualitative research with a focus on the components of a research study (research question(s), literature review, conceptual framework, methods, analysis, findings) and the relationships among them.

MATH 5394 Research Methods in Mathematics
1-3 Semester Credit Hours
RESEARCH METHODS IN MATHEMATICS This course develops an ability to independently investigate a technical topic of interest, and the skills necessary to successfully communicate on that topic. The student learns how to find, organize, assimilate, and report on technical information derived from published sources. Specific areas of study include literature searches, technical word processing, technical writing style, and oral presentation techniques. The instructor and selected additional faculty members review and critique oral and written reports submitted throughout the semester. A final paper and a formal presentation are submitted in lieu of a final exam in the final semester. This course is a co-requisite for all other courses (except thesis) taken by students in the Environmental Modeling option.

MATH 5396 Directed independent Study
3 Semester Credit Hours
Study in areas of current interest. See College description for further details.

MATH 5993 Literature Review and Research
1-9 Semester Credit Hours
Reading, analyzing, and synthesizing appropriate mathematics and/or mathematics education research literature under supervision. May be repeated for credit.

MATH 5994 Proposal Research
1-9 Semester Credit Hours
This course develops an ability to independently investigate a technical topic of interest, and the skills necessary to successfully communicate on that topic. The student learns how to find, organize, assimilate, and report on technical information derived from published sources. Specific areas of study include literature searches, technical word processing, technical writing style, and oral presentation techniques. A final paper and a formal presentation are submitted in lieu of a final exam in the final semester.

MATH 5995 Thesis
1-9 Semester Credit Hours
Students work with an advisor to complete and present their proposed thesis. Students may register for 3 to 9 semester hours per semester. Only 3 hours total will count toward the MS degree in mathematics.
Prerequisite: MATH 5994.

MATH 5997 Project
1-9 Semester Credit Hours
Students work with an advisor to complete and present their proposed research project. Students may register for 3 to 9 semester hours of directed research per semester. Only 3 hours total will count toward the MS degree in mathematics.
Prerequisite: MATH 5994.

MATH 6315 Statistical Methods in Research I
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
This course is for graduate students in other disciplines and is designed to prepare them to use statistical methods in their research. This is a non-calculus exposition of the concepts, methods and usage of statistical data collection and analysis. Topics include descriptive statistics, the t-test, the one and two-way analysis of variance, multiple comparison tests, and multiple regression. Students also learn how to conduct these analyses using computer software and how to properly report their findings.
Prerequisite: MATH 1442 or 3342.
MATH 6316  Statistical Methods Research II
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
This course is a continuation of MATH 6315. Topics include: statistical experimental design, randomized blocks and factorial analysis, multiple regression, chi-squared tests, analysis of covariance, non-parametric methods and sample surveys. Emphasis will be placed on the computer analysis of research data and how to properly report statistical findings.
Prerequisite: MATH 6315.

MATH 6317  Mixed Effects Models for Scientists
3 Semester Credit Hours (3 Lecture Hours)
This course will deal with extensions to the regression and ANOVA that are frequently useful in dealing with ecological data. Topics include: using bootstrapping for significance testing; generalized additive models; using generalized least squares to deal with non-homogeneous data; working with fixed and random factors; handling temporally correlated and spatially correlated data; and the generalized linear model (Poisson, logistic, and negative binomial regression).
Prerequisite: MATH 6315 or 6316.

MATH 6318  An Introduction to Bayesian Statistics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to Bayesian Statistics for scientists. Topics include: Bayesian paradigm, with advantages and disadvantages; brief coverage of probability and calculus; basics of Markov Chain Monte Carlo methods, including the Gibbs sampler and the Metropolis-Hastings algorithm; validating, comparing, and interpreting Bayesian models; and examples from literature relevant to students interests. The course assumes no prior exposure to calculus or programming.
Prerequisite: MATH 3342 or 5315.

MATH 6344  Spatial Statistics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to methods of spatial statistics commonly used in scientific settings. Topics include the nature of geospatial sampling, analysis and modeling of spatial point patterns, and development and analysis of common continuous spatial models such as kriging. Additional topics to be covered, as time and student interest permit, include Bayesian modeling, hierarchical environmental modeling, and spatiotemporal modeling. Use of appropriate software is emphasized.
Prerequisite: MATH 3342 or 5315.

Master Degree Programs - School of Engineering and Computer Sciences

- Computer Science, MS (p. 247)
- Geospatial Systems Engineering, MS (p. 254)

Computer Science, MS

Program Description
The Master of Science with a major in Computer Science is designed to prepare graduate professionals who can apply the necessary knowledge of computing to information requirements of organizations in business, government, industry and education. The program provides for the education of individuals who will develop, maintain, or manage complex computer-based information systems.

The program provides the experienced professional with up-to-date specialized knowledge while developing those analytical skills necessary to stay abreast of the changing field of computing. The program also provides the recent baccalaureate graduate with additional applied and advanced knowledge, thus facilitating a more useful contribution to his/her career path.

Fast Track Computer Science BS to Computer Science MS
The university allows the opportunity for high-achieving undergraduate students to count a select number of graduate credits toward their undergraduate degree and thereby obtain a graduate degree at an accelerated pace. Students interested in the Fast Track in Computer Science should see the undergraduate catalog.

Program Goal
Prepare students to pursue careers in industry, academia, and government by offering a state of the art curriculum and advanced knowledge.

Student Learning Outcomes
At the time of graduation students will attain:

- the ability for effective oral and written communication of complex ideas to diverse audiences, and
- skills to efficiently solve complex problems from various domains with computers, and
- the ability to comprehend and apply state-of-the-art in the field, and
- an understanding of professional, ethical, legal, and security issues and responsibilities, and the societal impact of computing.

Chronological Procedure Leading to the MS Degree

1. Completion of a degree plan
Upon admission to the MS degree program in computer science, and prior to enrollment in any course, the student must contact the Graduate Academic Advisor in the College of Science & Engineering to have a degree plan completed. The student will then be assigned a faculty advisor from the computer science faculty. Students should seek the advice of their faculty advisor on a regular basis about their progress toward their degree.

2. Progress toward the degree
Once admitted to the graduate degree program in computer science, a student must complete at least six semester hours of credit per year toward the degree until the degree is completed. Failure to make this minimum progress will result in dismissal from the degree program with possible readmission based on the catalog in effect at the time of readmission. A student who is actively pursuing a graduate project or thesis and has completed all other course work for the degree will be given relief from this requirement, but must register continuously for the project or thesis until it is completed.

3. Thesis or Courses Only
Thesis Option
Students choosing the thesis option must obtain permission from their faculty advisor (who will chair their committee) to register for COSC 5398 Thesis I (3 sch), which should be taken in the next to last semester. During the first month of Thesis I, the student and their advisor should determine the thesis committee. This committee consists of at least three full-time Texas A&M University-Corpus Christi graduate faculty members, two of which must be in computer science.

While taking Thesis I, the student will develop a written proposal of the thesis work and present the proposal for approval. Upon approval,
the student may then register for COSC 5399 Thesis II (3 sch). The student must then continually register for COSC 5399 Thesis II (3 sch) until completion of their thesis. If the student fails to register for COSC 5399 Thesis II (3 sch) or fails their final examination, a grade of No Credit will be assigned to COSC 5398 Thesis I (3 sch) and all COSC 5399 Thesis II (3 sch) courses and the student must begin the process again.

While taking COSC 5399 Thesis II (3 sch), the student will produce a written thesis that discusses their work. A draft copy of the thesis will be given to all committee members and the student will make any changes required by the committee. Upon approval of the thesis committee chair, the student may schedule their final oral examination. The thesis will be published and archived in the Mary & Jeff Bell library. Guidelines for writing the thesis are available in the Computer Science office.

**Course Only Option**

Students must take all required courses along with their chosen electives with at least two courses from each elective group.

COSC 6370 Advanced Software Engineering (3 sch) is taken in the final semester.

4. **Final examination (Thesis Option)**

   After the student has completed all other requirements for the MS degree in computer science, the student must schedule an oral exam over his/her graduate program of study. The oral exam will be administered by the graduate thesis committee and will focus heavily on the thesis itself.

**For Additional Information**

**Website:**

http://gradschool.tamucc.edu/degrees/science/computer_science.html

**Campus Address:**

Center for Instruction, Room 301
Phone: (361) 825-2474

**Mailing Address:**

Computer Science Program, Unit 5825
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412-5825

**Admission Requirements**

1. In addition to meeting all University requirements, students seeking admission to the graduate degree program in computer science must submit the following to the Office of Research and Graduate Studies:
   
   • An application and application fee
   
   • Transcripts from regionally accredited institutions (international students will be required to submit relevant international transcripts)
   
   • An essay (500-1000 words) discussing why you wish to get a Master's degree and your areas of interest
   
   • GRE scores (within five years of the date of application)
   
   • International students must show English language proficiency through either TOEFL or IELTS exam and additional documents to the College of Graduate Studies. See http://gradschool.tamucc.edu/international.htm for full requirements

2. A student entering the program is expected to have adequate preparation in computer science and mathematics from their undergraduate degree. For computer science, this preparation must include successful completion of coursework in data structures, a high level programming language, computer architecture, operating systems, and software engineering. In mathematics, students must have successfully completed course work in discrete mathematics, calculus, plus one additional junior level or higher mathematics course such as linear algebra, numerical analysis, or applied probability and statistics.

Students who have not successfully completed the above courses may be required to take leveling courses in any missing subjects. All leveling courses must be completed with a grade of “B” or better. In addition, students can take no more than 9 credits towards their degree prior to completing all leveling courses.

3. Students seeking admission to the Computer Science MS program have to identify a faculty member willing to serve as their graduate faculty advisor. Applicants can submit their interests at portal.cs.tamucc.edu (https://portal.cs.tamucc.edu/) after they have applied, accounts may take up to two weeks to be created after applying. Applicants will not be admitted to the program without a graduate advisor.

**Program Requirements**

Requirements for the Master of Science in Computer Science degree may be met through one of two options: Thesis Option (Option I) or Course Only Option (Option II). The Thesis Option requires a minimum of 30 credit hours and the Course Only Option requires a minimum of 36 credit hours. The Thesis Option allows for maximum flexibility in choosing elective courses. This option allows the student to concentrate on a particular field or area of computer science. The Course Only Option allows for flexibility in choosing elective courses but requires the student to take at least two electives from each of the three elective concentration tracks. The concentration tracks are Software and Programming, Data Sciences, and Cyber Science.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COSC 6334</td>
<td>Design and Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>COSC 6351</td>
<td>Advanced Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>COSC 6352</td>
<td>Advanced Operating Systems</td>
<td>3</td>
</tr>
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</table>

**Thesis or Course Option**

Select one of the following options: 21-27

**Option 1 - Thesis**

Select a minimum of 12 hours of electives to support thesis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 6393</td>
<td>Research Methods in Computer Science</td>
<td></td>
</tr>
<tr>
<td>COSC 5398</td>
<td>Thesis I</td>
<td></td>
</tr>
<tr>
<td>COSC 5399</td>
<td>Thesis II</td>
<td></td>
</tr>
</tbody>
</table>

Select electives that will support the student’s thesis

**Option II - Course**

Select a minimum of 24 hours, with at least 6 credits hours from each concentration track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 6370</td>
<td>Advanced Software Engineering (Must be taken in last semester)</td>
<td></td>
</tr>
</tbody>
</table>

Select electives across different areas of computer science, and must take at least two courses from each of the concentration tracks

**Concentration Tracks**

**Software and Programming**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>COSC 6340</td>
<td>Human-Computer Interaction</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>COSC 6336</td>
<td>Compiler Design and Construction</td>
</tr>
<tr>
<td>COSC 6356</td>
<td>Theory of Computation</td>
</tr>
<tr>
<td>COSC 6360</td>
<td>Parallel Computing</td>
</tr>
<tr>
<td>COSC 6361</td>
<td>Parallel Algorithms</td>
</tr>
<tr>
<td>COSC 6362</td>
<td>Mobile Software Development</td>
</tr>
<tr>
<td>COSC 6365</td>
<td>Current Trends in Programming</td>
</tr>
</tbody>
</table>

**Data Science**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>COSC 6324</td>
<td>Digital Image Processing</td>
</tr>
<tr>
<td>COSC 6326</td>
<td>Computer Vision</td>
</tr>
<tr>
<td>COSC 6327</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>COSC 6328</td>
<td>Advanced Computer Graphics</td>
</tr>
<tr>
<td>COSC 6336</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>COSC 6337</td>
<td>Data Mining</td>
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<tr>
<td>COSC 6338</td>
<td>Machine Learning</td>
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<td>COSC 6339</td>
<td>Deep Learning</td>
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<tr>
<td>COSC 6350</td>
<td>Advanced Topics in DBMS</td>
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<tr>
<td>COSC 6354</td>
<td>Artificial Intelligence</td>
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<tr>
<td>COSC 6380</td>
<td>Data Analytics</td>
</tr>
</tbody>
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**Cyber Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COSC 6355</td>
<td>Data Communications and Networking</td>
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<tr>
<td>COSC 6357</td>
<td>Wireless Sensor Networks</td>
</tr>
<tr>
<td>COSC 6374</td>
<td>Computer Forensics</td>
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<tr>
<td>COSC 6375</td>
<td>Information Assurance</td>
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<tr>
<td>COSC 6376</td>
<td>Network Security</td>
</tr>
<tr>
<td>COSC 6377</td>
<td>Applied Cryptography</td>
</tr>
<tr>
<td>COSC 6379</td>
<td>Advanced Information Assurance</td>
</tr>
</tbody>
</table>

| Total Hours | 30-36 |

^ Blended offering

**Electives**

Electives are chosen by the student but are subject to approval by the student's graduate faculty advisor. For the Thesis Option, electives should be taken that will support the student's thesis. For the Course Only Option, students must obtain breadth by taking electives across different areas of computer science, and must take at least two courses from each of the concentration tracks. Electives not listed in the concentration tracks may also be taken to fulfill remaining credit hours.

No more than six hours of approved electives may come from courses taken at another university or from outside of computer science. Credit from a master's degree earned at another institution will not be applied to a second master's degree at Texas A&M University-Corpus Christi. A maximum of six hours of approved Directed Independent Study may count toward the MS degree.

**Courses**

**COSC 5300 Introductory Topics in Computer Science**

3 Semester Credit Hours (3 Lecture Hours)

This course introduces students to the leveling topics in computer science. This course serves the needs of certain topics students lack for pursuing a Master's degree in computer science. Grade assigned will be "credit" (CR) or "no credit" (NC).
COSC 5334 THE DESIGN AND ANALYSIS OF ALGORITHMS
3 Semester Credit Hours (3 Lecture Hours)
An advanced course that concentrates on the design and analysis of algorithms used to solve a variety of problems. The methods of design covered include such topics as: divide-and-conquer, the greedy method, dynamic programming, search and traversal techniques, and backtracking.
Prerequisite: COSC 5321, MATH 2413 and 2305.

COSC 5336 DATABASE MANAGEMENT SYSTEMS
3 Semester Credit Hours (3 Lecture Hours)
A study of contemporary database management concepts. Performance (indexing, query optimization, update optimization), concurrency, security and recovery issues are discussed. Also includes the study of front-end environments that access the database.
Prerequisite: COSC 5335 and 5321.

COSC 5337 DATA MINING
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.
Prerequisite: COSC 5336.

COSC 5340 HUMAN-COMPUTER INTERACTION
3 Semester Credit Hours (3 Lecture Hours)
Graduate-level survey of the field of Human-Computer Interaction (HCI) focusing on design strategies for making software usable by real-world people for doing real-world work. Topics include the role of HCI in the software product life cycle, task analysis of the user’s work, architectures for human-computer dialogues, new and traditional approaches to user interface design, and user interface standards.
Prerequisite: COSC 5331.

COSC 5350 ADVANCED TOPICS IN DBMS
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.
Prerequisite: COSC 5336.

COSC 5351 ADVANCED COMPUTER ARCHITECTURE
3 Semester Credit Hours (3 Lecture Hours)
COMPUTER ARCHITECTURE An overview of computer architecture, which stresses the underlying design principles and the impact of these principles on computer performance. General topics include design methodology, processor design, control design, memory organization, system organization, and parallel processing.
Prerequisite: COSC 5331.

COSC 5352 ADVANCED OPERATING SYSTEMS
3 Semester Credit Hours (3 Lecture Hours)
Introduction to advanced concepts in operating systems and distributed systems. Topics include distributed system architectures, interprocess communication, distributed mutual exclusion, distributed synchronization and deadlock, agreement protocols, distributed scheduling and process management, distributed shared memory, distributed file systems, multiprocessor system architectures and operating systems, recovery and fault tolerance.
Prerequisite: COSC 5331.

COSC 5353 PRINCIPLES OF COMPILER CONSTRUCTION
3 Semester Credit Hours (3 Lecture Hours)
COMPILER DESIGN AND CONSTRUCTION This course introduces the basic concepts and mechanisms traditionally employed in language translators, with emphasis on compilers. Topics include strategies for syntactic and semantic analysis, techniques of code optimization and approaches toward code generation.
Prerequisite: COSC 5330 and MATH 2305.

COSC 5354 ARTIFICIAL INTELLIGENCE
3 Semester Credit Hours (3 Lecture Hours)
Fundamental concepts and techniques for the design of computer-based, intelligent systems. Topics include: a brief history, methods for knowledge representation, heuristic search techniques, programming in LISP or Prolog.
Prerequisite: COSC 5321 and MATH 2305.

COSC 5355 DATA COMMUNICATIONS NETWORKING
3 Semester Credit Hours (3 Lecture Hours)
DATA COMMUNICATION SYSTEMS Areas studied include principles of computer-based communication systems, analysis and design of computer networks, and distributed data processing.
Prerequisite: COSC 5331.

COSC 5356 THEORY OF COMPUTATION
3 Semester Credit Hours (3 Lecture Hours)
THEORETICAL ASPECTS OF COMPUTING An introduction to theoretical foundations of modern computing. Topics include finite state machine concepts, formal grammars, and basic computability concepts.
Prerequisite: COSC 5321 and MATH 2305.

COSC 5357 WIRELESS SENSOR NETWORKS
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course on wireless sensor networks; one of the fastest developing areas in computer science and engineering. The focus of this course is on the design of optimized architectures and protocols for such unique networks. Topics include the design principles of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.

COSC 5360 CONCURRENCY: PARALLEL AND DISTRIBUTED PROCESSING
3 Semester Credit Hours (3 Lecture Hours)
PARALLEL COMPUTING Introduction to the hardware and software issues in parallel computing. Topics include motivation and history, parallel architectures, parallel algorithm design, and parallel performance analysis. Students will be introduced to a variety of parallel computing paradigms including message passing systems and shared memory systems.
Prerequisite: COSC 5331.

COSC 5362 MOBILE SOFTWARE DEVELOPMENT
3 Semester Credit Hours (3 Lecture Hours)
Survey of software development on mobile platforms including both native and cross-platform applications with topics such as: prototyping, programming, testing, debugging, and deploying. Coverage of software life cycle on mobile platforms and how mobile hardware differs from traditional computers. COSC 5321

COSC 5370 ADVANCED SOFTWARE ENGINEERING
3 Semester Credit Hours (3 Lecture Hours)
Areas studied include engineering principles and their application to the design, development, testing, and maintenance of large software systems, tools and processes for managing the complexities inherent in creating and maintaining large software systems.
Prerequisite: COSC 5321.
COSC 5374 COMPUTER FORENSICS
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the fundamentals of computer forensics and various software tools used in cyber-crime analysis. Students will be introduced to established methodologies for conducting computer forensic investigations, as well as to emerging international standards for computer forensics. Applicable laws and regulations dealing with computer forensic analysis will also be discussed.
Prerequisite: COSC 5312.

COSC 5375 INFORMATION ASSURANCE
3 Semester Credit Hours (3 Lecture Hours)
An introduction to information security and assurance. This course covers the basic notions of confidentiality, integrity, availability, authentication models, protection models, secure programming, audit, intrusion detection and response, operational security issues, physical security issues, personnel security, policy formation and enforcement, access controls, information flow, legal and social issues, classification, trust modeling, and risk assessment.
Prerequisite: COSC 5312.

COSC 5376 NETWORK SECURITY
3 Semester Credit Hours (3 Lecture Hours)
This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network.
Prerequisite: COSC 5375.

COSC 5377 APPLIED CRYPTOGRAPHY
3 Semester Credit Hours (3 Lecture Hours)
This course includes an introduction to cryptographic algorithms and protocols for encrypting information securely, techniques for analyzing vulnerabilities of protocols, approaches to digital signatures and information digests, and implementation approaches for the most significant cryptographic methodologies.
Prerequisite: COSC 5312.

COSC 5379 ADVANCED INFORMATION ASSURANCE
3 Semester Credit Hours (3 Lecture Hours)
This course encompasses a broad range of topics involving information security, communications security, network security, risk analysis, operational security, health information privacy, criminal justice digital forensics, homeland security, the human element and social engineering, and applicable national and international laws. An in-depth information assurance capstone project or research paper will be required of each student to satisfy the information assurance graduate option requirements.
Prerequisite: COSC 5375.

COSC 5390 Internship
3 Semester Credit Hours
Individual contract agreement involving student, faculty, and cooperating agency (discipline-related business, nonprofit organization, or government agency) to gain practical experience appropriate to computer science in off-campus setting. Grade assigned will be “credit” (CR) or “no credit” (NC).

COSC 5393 RESEARCH METHODS IN COMP SCIEN
3 Semester Credit Hours (3 Lecture Hours)
RESEARCH METHODS IN COMPUTER SCIENCE This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical-reading/writing assignments and class discussions on state-of-the-art research in Computer Science will provide students with major research aspects. Fall, Spring

COSC 5395 GRADUATE PROJECT AND TECHNICAL REPORT
3 Semester Credit Hours
An applied research project in computing from problem definition to implementation in an area of particular interest to the student that relates to the course of study.
Prerequisite: COSC 5393 and 5370.

COSC 5396 DIRECTED INDEPENDENT STUDY
1-3 Semester Credit Hours
Study in areas of current interest. (A maximum of six hours may be counted toward the MS degree.) Fall, Spring, Summer.

COSC 5398 Thesis I
3 Semester Credit Hours (3 Lecture Hours)
This course is for Computer Science MS students choosing the thesis option. Upon choosing a thesis advisor, students will register for this course. This course is only credit/no credit. Students will be given a grade of In-Progress until successfully completing their thesis.
Prerequisite: COSC 6393.

COSC 5399 Thesis II
3 Semester Credit Hours (3 Lecture Hours)
This course is for Computer Science MS students choosing the thesis option. Students will continually register for this course until successful completion of their thesis. A grade of In-Progress will be assigned until either successful completion or failing to register. If failing to register students will receive a grade of No Credit for all 5399 and 5398 courses.
Prerequisite: COSC 5398.

COSC 5590 SELECTED TOPICS
1-5 Semester Credit Hours (1-5 Lecture Hours)
Variable content study of specific areas of computer and information systems. May be repeated for credit when topics vary. Offered on sufficient demand.

COSC 5599 Advanced Research in Computer Science
1-9 Semester Credit Hours (1-9 Lecture Hours)
Advanced work in a specialized area of computer science. Does not count as credit toward a degree in computer science. Course is taken as credit/non-credit.

COSC 6324 Digital Image Processing
3 Semester Credit Hours
This course introduces concepts and techniques for image processing. The objective of this course is to introduce the fundamental techniques and algorithms used for processing and extracting useful information from digital images. The students will learn how to apply the image processing methods to solve real-world problems.
COSC 6326  Computer Vision
3 Semester Credit Hours
This graduate course introduces concepts and techniques for machine vision. Particular emphasis will be placed on methods used for object recognition, machine learning, content-based image retrieval, image matching, 3D vision, tracking and motion analysis.
Prerequisite: COSC 6324.

COSC 6327  Introduction to Computer Graphics
3 Semester Credit Hours
This graduate course provides students with a foundation in basic principles and techniques for computer graphics on modern graphics hardware. Students will gain experience in interactive computer graphics using the OpenGL API. Topics include: graphics hardware, rendering, perspective, lighting, and geometry.

COSC 6328  Advanced Computer Graphics
3 Semester Credit Hours
This course covers advanced computer graphics techniques. Students will be introduced to state-of-the-art methods in computer graphics. This course will focus on techniques for real-time rendering and animation.
Prerequisite: COSC 4328 or 6327.

COSC 6334  Design and Analysis of Algorithms
3 Semester Credit Hours (3 Lecture Hours)
An advanced course that concentrates on the design and analysis of algorithms used to solve a variety of problems. The methods of design covered include such topics as: divide-and-conquer, the greedy method, dynamic programming, search and traversal techniques, and backtracking.
Prerequisite: COSC 5321, MATH 2413 and 2305.

COSC 6336  Database Management Systems
3 Semester Credit Hours (3 Lecture Hours)
A study of contemporary database management concepts. Performance (indexing, query optimization, update optimization), concurrency, security and recovery issues are discussed. Also includes the study of front-end environments that access the database.
Prerequisite: COSC 5321.

COSC 6337  Data Mining
3 Semester Credit Hours
An introduction to fundamental strategies and methodologies for data mining. Topics include data preprocessing, mining frequent data patterns, classification, clustering, and outlier detection.

COSC 6338  Machine Learning
3 Semester Credit Hours (3 Lecture Hours)
Machine learning is a set of techniques that have been successfully used in the past few decades for data analysis, process automation, function optimization, model building, and many others. These techniques have been explored in a variety of fields such as robotics, self-driving cars, big data, control of autonomous systems, image analysis, object recognition, data mining, business, and financial forecasting, transportation systems, antenna design, medical care systems, and many others. ML is a subdivision of artificial intelligence that gives machines the ability to learn and adapt with different acquired knowledge and experience. In this course, a student will learn about state of the art on machine learning and get to know how they can carry out these evolving learning algorithms. ML algorithms attempt to mimic how the human brain works. We plan to develop many exercises on how these ML algorithms work in practical applications in both industry and basic science. We plan to cover topics such as artificial network networks, fuzzy logic, hybrid systems, search and optimization, classification, clustering and deep learning. Students will gain experiences on some programming tools and a variety of applications of machine learning.

COSC 6339  Deep Learning
3 Semester Credit Hours (3 Lecture Hours)
This course introduces concepts and techniques for deep learning. The objective of this course is to introduce the fundamental theory and application of deep learning. Particular emphasis will be placed on regularization and optimization of deep learning models, Convolutional network, recurrent neural networks, autoencoders and generative models. In addition, the students will learn how to apply the methods to solve real-world problems in several areas including remote sensing, geospatial, and medical applications and develop the insight necessary to use the tools and techniques to solve any new problem.

COSC 6340  Human-Computer Interaction
3 Semester Credit Hours (3 Lecture Hours)
This graduate course introduces concepts and techniques for Human Computer Interaction. Attention will be paid to using non-traditional inputs such as cameras and microphones. Students will learn tools for using these inputs to create interactions with users.
Prerequisite: COSC 5331.

COSC 6350  Advanced Topics in DBMS
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.
Prerequisite: COSC 6336.

COSC 6351  Advanced Computer Architecture
3 Semester Credit Hours
An overview of computer architecture, which stresses the underlying design principles and the impact of these principles on computer performance. General topics include design methodology, processor design, control design, memory organization, system organization, and parallel processing.
Prerequisite: COSC 5331.
COSC 6352 Advanced Operating Systems  
3 Semester Credit Hours (3 Lecture Hours)  
Introduction to advanced concepts in operating systems and distributed systems. Topics include distributed system architectures, interprocess communication, distributed mutual exclusion, distributed synchronization and deadlock, agreement protocols, distributed scheduling and process management, distributed shared memory, distributed file systems, multiprocessor system architectures and operating systems, recovery and fault tolerance.  
Prerequisite: COSC 5331.

COSC 6353 Compiler Design and Construction  
3 Semester Credit Hours  
This course introduces the basic concepts and mechanisms traditionally employed in language translators, with emphasis on compilers. Topics include strategies for syntactic and semantic analysis, techniques of code optimization and approaches toward code generation.  
Prerequisite: MATH 2305.

COSC 6354 Artificial Intelligence  
3 Semester Credit Hours  
Fundamental concepts and techniques for the design of computer-based, intelligent systems. Topics include: a brief history, methods for knowledge representation, heuristic search techniques, programming in LISP or Prolog.  
Prerequisite: COSC 5321 and MATH 2305.

COSC 6355 Data Communications and Networking  
3 Semester Credit Hours (3 Lecture Hours)  
Areas studied include principles of computer-based communication systems, analysis and design of computer networks, and distributed data processing.  
Prerequisite: COSC 5331.

COSC 6356 Theory of Computation  
3 Semester Credit Hours  
An introduction to theoretical foundations of modern computing. Topics include finite state machine concepts, formal grammars, and basic computability concepts.  
Prerequisite: COSC 5321 and MATH 2305.

COSC 6357 Wireless Sensor Networks  
3 Semester Credit Hours  
This is a graduate level course on wireless sensor networks; one of the fastest developing areas in computer science and engineering. The focus of this course is on the design of optimized architectures and protocols for such unique networks. Topics include the design principles of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.  
Prerequisite: COSC 5321.

COSC 6360 Parallel Computing  
3 Semester Credit Hours  
Introduction to the hardware and software issues in parallel computing. Topics include motivation and history, parallel architectures, parallel algorithm design, and parallel performance analysis. Students will be introduced to a variety of parallel computing paradigms including message passing systems and shared memory systems.  
Prerequisite: COSC 5331.

COSC 6361 Parallel Algorithms  
3 Semester Credit Hours (3 Lecture Hours)  
Introduces and evaluates important models of parallel and distributed computation. Topics include a selection of parallel algorithms for various models of parallel computation, combinational circuits, parallel prefix computation, divide and conquer, pointer based data structures, linear arrays, meshes and related models, and hypercubes.

COSC 6362 Mobile Software Development  
3 Semester Credit Hours  
Survey of software development on mobile platforms including both native and cross-platform applications with topics such as: prototyping, programming, testing, debugging, and deploying. Coverage of software life cycle on mobile platforms and how mobile hardware differs from traditional computers.  
Prerequisite: COSC 5321.

COSC 6365 Current Trends in Programming  
3 Semester Credit Hours (3 Lecture Hours)  
This is a survey of current trends in computer programming. The focus of this course is on the development of computer programs utilizing the latest technologies and paradigms. Topics include state-of-the-art in problem solving and software development, programming techniques and approaches, programming languages, development tools and environments, and software deployment methods.  
Prerequisite: COSC 5321.

COSC 6370 Advanced Software Engineering  
3 Semester Credit Hours  
Areas studied include engineering principles and their application to the design, development, testing, and maintenance of large software systems, tools and processes for managing the complexities inherent in creating and maintaining large software systems.  
Prerequisite: COSC 5321.

COSC 6374 Computer Forensics  
3 Semester Credit Hours  
This course will introduce students to the fundamentals of computer forensics and various software tools used in cyber-crime analysis. Students will be introduced to established methodologies for conducting computer forensic investigations, as well as to emerging international standards for computer forensics. Applicable laws and regulations dealing with computer forensic analysis will also be discussed.  
Prerequisite: COSC 5321.

COSC 6375 Information Assurance  
3 Semester Credit Hours (3 Lecture Hours)  
An introduction to information security and assurance. This course covers the basic notions of confidentiality, integrity, availability, authentication models, protection models, secure programming, audit, intrusion detection and response, operational security issues, physical security issues, personnel security, policy formation and enforcement, access controls, information flow, legal and social issues, classification, trust modeling, and risk assessment.

COSC 6376 Network Security  
3 Semester Credit Hours  
This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network.  
Prerequisite: COSC 6375.
COSC 6377 Applied Cryptography
3 Semester Credit Hours
This course includes an introduction to cryptographic algorithms and protocols for encrypting information securely, techniques for analyzing vulnerabilities of protocols, approaches to digital signatures and information digests, and implementation approaches for the most significant cryptographic methodologies.

COSC 6379 Advanced Information Assurance
3 Semester Credit Hours
This course encompasses a broad range of topics involving information security, communications security, network security, risk analysis, operational security, health information privacy, criminal justice digital forensics, homeland security, the human element and social engineering, and applicable national and international laws. An in-depth information assurance capstone project or research paper will be required of each student to satisfy the information assurance graduate option requirements.
Prerequisite: COSC 6375.

COSC 6380 Data Analytics
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce state-of-the-art techniques to process and analyze different types of data, generate insights and knowledge from data, and make data-based decisions and predictions. Real-world examples will be used to familiarize students with the theory and applications. Main topics include data preprocessing, probability theory, tests of hypothesis, and various data analysis techniques (e.g., clustering, classification, prediction/forecasting, etc.) for different types of data including static, time-series, spatial, and spatiotemporal.

COSC 6393 Research Methods in Computer Science
3 Semester Credit Hours
This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical-reading/writing assignments and class discussions on state-of-the-art research in Computer Science will provide experiences with major research aspects. Spring

COSC 6396 Directed Independent Study
3 Semester Credit Hours
Study in areas of current interest. (A maximum of six hours may be counted toward the MS degree.) Fall, Spring, Summer.

COSC 6590 Selected Topics
3 Semester Credit Hours (3 Lecture Hours)
Variable content study of specific areas of computer and information systems. May be repeated for credit when topics vary. Offered on sufficient demand.

Geospatial Systems Engineering, MS

Program Description
The Geospatial Systems Engineering Program will prepare graduates with advanced knowledge and skills focusing on research, design, development, and use of technologies in the field of geospatial systems engineering. This program satisfies regional, state, and national need for master’s-level graduates in geospatial systems engineering.

The program offers two tracks, Track 1 - Geosensing Systems and UAS for Geomatics or Track 2 - Geospatial Data Science and Analytics. Both tracks require a minimum of 30 semester-credit hours. This must include 6 semester credit hours in the geospatial systems engineering core, 9 semester credit hours in each track, and 15 semester hours in the Graduate Thesis option or the Graduate Creative Project option as described in Section II.

Objectives of the Program

Student Learning Outcomes
Graduates of the GSEN Program will:

- Develop, manage, and analyze geospatial data using spatial analysis, computational, and geomatics engineering techniques.
- Develop the capacity for continued learning, research, and professional application.
- Creatively apply geomatics engineering techniques and technologies to solve real-world problems.

Program Outcomes

Graduates of the Master of Science in Geospatial Systems Engineering will have:

1. The ability to lead teams and apply problem-solving skills that include oral and written communication skills to effectively manage geospatial information.
2. An awareness and utilization of external organizations and institutions that provide useful geospatial data sets and their relationships to traditional and contemporary societal issues.
3. A recognition of the need for continued learning and development of leadership skills through involvement in volunteer professional organizations and societies.

Chronological Procedure Leading to the MS Degree

1. Completion of a degree plan
Upon admission to the MS degree program in Geospatial Systems Engineering, and prior to enrollment in any course, the student must contact the Graduate Academic Advisor in the College of Science and Engineering to have a degree plan completed. Students must arrange to see their advisor/mentor each semester until graduation to have their semester course schedules approved.

2. Progress toward the degree
Once admitted to the graduate degree program in Geospatial Systems Engineering, a student must complete at least six semester credit hours per year toward the degree until the degree is completed. Failure to make this minimum progress will result in dismissal from the degree program with possible readmission based on the catalog in effect at the time of re-admission. A student who is actively pursuing a Graduate Creative Project and has completed all other course work for the degree will be required to register for a minimum of three credit hours continuously until the project is completed. A student who is actively pursuing a Graduate Thesis and has completed all other course work for the degree will be required to register for thesis credit hour(s) continuously until the project is completed.

3. Graduate Thesis and Graduate Creative Project procedure
Following a consultation with and permission of the advisor/mentor, the student may register for GSEN 5395 Graduate Research Design (3 sch) to develop a proposal for the Graduate Thesis or Graduate Creative Project. After the proposal is approved by the thesis or creative project chairperson, the proposal must be submitted to
the full thesis or creative project committee. This three-member committee shall consist of at least two full-time Texas A&M University-Corpus Christi graduate faculty members. The committee chairperson must be a graduate faculty member in the geospatial systems engineering program. The second committee member may be a graduate faculty member in geospatial systems engineering, geographic information science, or computer science. The third member may be a graduate faculty member having distinguished professional status and expertise in the discipline of the proposed Graduate Thesis or Graduate Creative Project. After the approved Graduate Thesis proposal is placed in the student’s file, the student may register for GSEN 5698 Graduate Thesis (1-6 sch). After approval of Graduate Creative Project proposal, a student may register for GSEN 5393 Graduate Creative Project (1-3 sch). Once a student has registered for Graduate Thesis or Graduate Creative Project, the student must continue to register in each consecutive semester until the thesis or creative project is completed. A student who does not complete a thesis or creative project in the semester for which the student has registered will receive a grade of IP (In Progress). Failure to register for an incomplete thesis or creative project in the next semester will terminate the thesis or creative project and will require that the entire thesis or creative project process be repeated starting with the submission of a new thesis or creative project proposal.

4. Final examination and thesis or project report
After completion of all other requirements for the MS degree in Geospatial Systems Engineering, the student must schedule an oral exam over his/her graduate program of study. The oral exam may include any material from the program of study and will be administered by the graduate committee. It will focus heavily on the thesis or creative project. The Graduate Thesis or Graduate Creative Project (see GSEN 5698 Graduate Thesis (1-6 sch) or GSEN 5393 Graduate Creative Project (1-3 sch)) may be completed in one semester; however, with continuous registration, a student will be allowed up to one calendar year to complete the thesis or creative project. Any extension beyond one year will require written justification on a semester-to-semester basis, to be approved by each member of the committee and the coordinator of the Geospatial Systems Engineering program.

For Additional Information
Website:
http://gisc.tamucc.edu

Campus Address:
Conrad Blucher Institute
Phone: 361-825-5850

Mailing Address:
Geospatial Systems Engineering Program, Unit 5868
Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, TX 78412-5868

Admission Requirements
Students seeking admission to the graduate degree program in Geospatial Systems Engineering must submit the following to the Office of Recruitment and Admissions:
1. An application and application fee.
2. Transcripts from regionally accredited institutions (international students will be required to submit relevant international transcripts).
3. At least two reference letters.
4. Official GRE scores (within five years of the date of application).
5. Admission Essay discussing why you wish to get a master’s degree and your area of interest.
6. A 60 hr. GPA of 3.0 or higher is standard.

Persons seeking admission to the MS Program in Geospatial Systems Engineering should first contact the program and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Program Requirements
The course of study leading to a MS degree in Geospatial Systems Engineering is composed of five components:

• General prerequisites (must be satisfied before the student can be formally and unconditionally accepted to the MS program).
• Options
• Core Courses
• Required Courses for Tracks
• Elective Courses
• Additional Courses.

The program normally requires 15 semester-credit hours of required courses, including 6 semester-credit hours of core courses and 9 semester-credit hours of required courses for tracks. Justification for exceptions to this rule should be prepared by students, approved by students’ graduate advisor, and attached to the degree plan when submitted for the department head’s signature.

General Prerequisites
1. Geospatial Systems Engineering
   Every student is expected to have achieved certain minimum competencies in geospatial science before being formally admitted to the MS degree program. Students who have not earned a baccalaureate degree in Geographic Information Science, Surveying, or a similar field must consult with the coordinator of the Geospatial Systems Engineering Program to design a plan of appropriate leveling courses. Leveling courses are not counted in the above 30 semester-credit hours requirements.

2. Mathematics
   Every student must have minimum level of knowledge in mathematics equivalent to the mathematics courses in the BS in Geographic Information Science Program and will be evaluated on an individual basis by Geospatial Systems Engineering faculty.

3. English
   Every student is expected to have minimum competencies in English composition, especially in technical writing. In preparation for reports that are required in the workplace, numerous reports are required during the course of study for the degree. The proposal, the creative project and the thesis require technical writing. Students may consider taking writing-intensive courses such as ENGL 3301.
Technical and Professional Writing (3 sch) to satisfy the writing requirement.

Options
Students must choose one from the following tracks:
- Track 1 Geosensing Systems and UAS for Geomatics
- Track 2 Geospatial Data Science and Analytics

The student can choose either a project or a thesis option under their chosen track.

Thesis Option
A Graduate Thesis based upon original research, supported by the scientific literature, and proved statistically, will be required under this option. The thesis option master’s degree will allow a person to pursue advanced graduate study, or to obtain employment in most areas requiring a detailed knowledge of specific aspects of geospatial systems engineering. The Geospatial Systems Engineering Graduate Thesis requires a minimum of 6 hours of GSEN 5698 Graduate Thesis (1-6 sch) and formal publishable thesis.

GSEN 5395 Graduate Research Design (3 sch) and GSEN 5698 Graduate Thesis (1-6 sch) (Total 9 hours)

Thesis Option Track 1 or 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Core Courses</td>
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</tr>
<tr>
<td></td>
<td>Required Courses for Each Track</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Electives (approved by faculty advisor)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>GSEN 5698 Graduate Thesis</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

Project Option
The project option is a Graduate Creative Project designed for students who desire a more detailed study into a specific geospatial systems engineering project. The curriculum will especially benefit individuals employed in scientific or technical fields who seek advancement or additional training to enhance their knowledge and skills. The Graduate Creative Project requires 3 hours of GSEN 5393 Graduate Creative Project (1-3 sch) and a formal publishable project report.

GSEN 5395 Graduate Research Design (3 sch) and GSEN 5393 Graduate Creative Project (1-3 sch) (Total 6 hours)

Project Option Track 1 or 2

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<tr>
<th>Code</th>
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<tbody>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>30</strong></td>
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Degree Requirements

Track 1: Geosensing Systems and UAS for Geomatics - Thesis Option

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
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<td>GSEN 5395</td>
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</table>

Required Courses

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GSEN 6383</td>
<td>Advanced Geospatial Analytics</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6386</td>
<td>Remote Sensing and Image Analysis</td>
<td>3</td>
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</table>

Track 1: Geosensing Systems and UAS for Geomatics - Project Option

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td></td>
<td>Core Courses</td>
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<tr>
<td>GSEN 5395</td>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>GSEN 6370</td>
<td>UAS for Surveying and Mapping</td>
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</tr>
<tr>
<td>GSEN 6371</td>
<td>Geopositioning Systems and Autonomous Navigation</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6385</td>
<td>Photogrammetric Engineering and Lidar Scanning</td>
<td>3</td>
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Electives

Select 9 hours of the following: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>GSEN 6330</td>
<td>Spatial Systems Science</td>
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<tr>
<td>GSEN 6355</td>
<td>Geospatial Programming Techniques</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6356</td>
<td>Programming for Geospatial Data Science</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6365</td>
<td>Spatial Database Design</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6371</td>
<td>Geospatial Data Mining</td>
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<td>GSEN 6380</td>
<td>Applied Geospatial Statistics</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6381</td>
<td>Cadastral Information Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6382</td>
<td>Policy and Legal Aspects of Spatial information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6384</td>
<td>Geospatial Visualization Design</td>
<td>3</td>
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</table>

Thesis Option

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GSEN 5698</td>
<td>Graduate Thesis</td>
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</table>

Additional Courses

The following may be offered and substituted for any of the courses above subject to approval by the student graduate mentor or committee chair.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GSEN 6390</td>
<td>Advanced Topics</td>
<td>3</td>
</tr>
<tr>
<td>GSEN 6396</td>
<td>Directed Independent Study</td>
<td>3</td>
</tr>
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</table>

Total Hours 30

1 Electives may be selected from other interdisciplinary courses, as selected in consultation with their advisory committee, to provide a broad background in geospatial systems engineering or related fields.

* Online offering
### Track 2: Geospatial Data Science and Analytics - Thesis Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GSEN 5395</td>
<td>Graduate Research Design</td>
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</tr>
<tr>
<td>GSEN 6383</td>
<td>Advanced Geospatial Analytics</td>
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</tr>
<tr>
<td>GSEN 6386</td>
<td>Remote Sensing and Image Analysis</td>
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### Electives
Select 6 hours of the following:

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<td>GSEN 6370</td>
<td>UAS for Surveying and Mapping</td>
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<td>Geopositioning Systems and Autonomous Navigation</td>
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</tr>
<tr>
<td>GSEN 6385</td>
<td>Photogrammetric Engineering and Lidar Scanning</td>
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</table>

### Project Track

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>GSEN 5393</td>
<td>Graduate Creative Project</td>
<td>3</td>
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</table>

### Additional Courses

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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GSEN 6390</td>
<td>Advanced Topics</td>
<td>3</td>
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</tbody>
</table>

### Courses

**GSEN 5355 DESIGN-ANALYS GIS APPLICATIONS**

3 Semester Credit Hours (3 Lecture Hours)

DESIGN-ANALYSIS GIS APPLICATIONS Programming course focusing on the design and implementation of GIS scripts. Topics covered include GIS scripts, GIS tool creation, and user interface design and implementation.
GSEN 5365  SPATIAL DATABASE DESIGN  
3 Semester Credit Hours (3 Lecture Hours)  
An introduction to spatial database principles and the practical skills of database design and implementation, and use of spatial databases. Topics covered include basic database model, spatial database design and management, spatial indexes, and spatial data mining. Advanced knowledge and skills in spatial databases are also covered.

GSEN 5381  CADASTRAL INFOSYSTEMS DESIGN  
3 Semester Credit Hours (3 Lecture Hours)  
A review of the evolution of European cadastral systems and land records traditions and alternatives. Examination of the goals and purposes of land tenure systems with attention to social, political, legal, economic, organizational, and technical issues. Exploration of U.S. modernization efforts and the problems of developing countries.

GSEN 5382  PLCY-LEGL ASPECT SPATL INFOSYS  
3 Semester Credit Hours (3 Lecture Hours)  
POLICY AND LEGAL ASPECTS OF SPATIAL INFORMATION SYSTEMS A study of the current and emerging status of computer law in electronic environments. Covers issues related to: privacy, freedom of information, confidentiality, copyright, and legal liability; the impact of statute and case law on use of digital databases and spatial databases; and research of legal options of conflicts related to spatial data.

GSEN 5383  ADV GEOSPATIAL ANALYSIS DESIGN  
3 Semester Credit Hours (3 Lecture Hours)  
ADVANCED GEOSPATIAL ANALYSIS AND DESIGN An advanced course that focuses on spatial analysis and modeling in GIS. Topics covered include exploratory analysis of spatial data, network analysis, exploring spatial point patterns, area objects and spatial autocorrelation, spatial interpolation, and spatial regression. New approaches to spatial analysis are also covered.

GSEN 5384  GEOSPATIAL VISUALIZATION DESIGN  
3 Semester Credit Hours (3 Lecture Hours)  
GEOSPATIAL VISUALIZATION DESIGN Basic elements of thematic cartography, cartographic theory, and cartographic projections. Integration of cartographic principles with GIS visualization. Principles of map design with GIS data.

GSEN 5385  ANALY-DIGITAL PHOTOGRAMMET ENG  
3 Semester Credit Hours (3 Lecture Hours)  
ANALYTICAL AND DIGITAL PHOTOGRAMMETRIC ENGINEERING A study of the mathematical and geometric models of modern photogrammetry. Covers principles of stereoscopic vision, collinearity, coplanarity, epipolar geometry, ground control densification and extension by analytical aero triangulation. Explores automation in photogrammetric procedures - digital aero triangulation, automated data capture.

GSEN 5386  PROBLEMS -REMOTE SENSING ENVIR  
3 Semester Credit Hours (3 Lecture Hours)  
PROBLEMS-REMOTE SENSING OF THE ENVIRONMENT Advanced problems in photo interpretation, photogrammetry and remote sensing within a GIS. Topics include utilization of expert computer systems, knowledge based environmental modeling, macro languages and spatial modeling languages. Operations and laboratories will cover mathematical operations on raster layers, convolution filtering, neighborhood analysis, principal components, proximity, contiguity and descriptor table manipulation. Final project includes the development of a remote sensing of the environment software program with a graphical user interface.

GSEN 5393  Graduate Creative Project  
1-3 Semester Credit Hours  
An applied research group project in geospatial surveying engineering from problem definition to implementation in an area provided by faculty in the course of study. Fall, Spring, and Summer.

GSEN 5395  Graduate Research Design  
3 Semester Credit Hours (3 Lecture Hours)  
Preparatory and developmental research for the Graduate Thesis or creative project resulting in the preliminary design and formal proposal of the graduate project. This thesis or a creative project proposal must be reviewed and approved by the project chairperson to receive credit. A grade of Credit/No Credit will be assigned for the class with the possibility to assign the grade of IP or In Progress. If a grade of IP is assigned, the course must be repeated the following semester(s) until the course is passed. Credit will not be recorded until the Graduate Project Proposal is approved by the Graduate Project Committee Chair. Offered Fall, Spring, and Summer semesters.

GSEN 5698  Graduate Thesis  
1-6 Semester Credit Hours  
An applied research project in geospatial systems engineering from problem definition to implementation in an area of particular interest to the student that relates to the course of study.

GSEN 6330  Spatial Systems Science  
3 Semester Credit Hours (3 Lecture Hours)  
Introduction and advanced usages of mapping datums, coordinate systems, and accuracy requirements for geographic information systems (GIS). Use of GIS tools to investigate statistical patterns and relationships among maps and geo-databases. Derivation of new maps and analysis based on spatial context, patterns, surface configuration, proximity, connectivity and flows.  
Prerequisite: MATH 6316.

GSEN 6355  Geospatial Programming Techniques  
3 Semester Credit Hours (3 Lecture Hours)  
Course teaches programming techniques in geospatial fields, such as how to automate GIS tasks using Python and other scripting languages. Automation can make your work easier, faster, and more accurate, and knowledge of a scripting language is a highly desired skill in GIS analysts. Fall.

GSEN 6356  Programming for Geospatial Data Science  
3 Semester Credit Hours (3 Lecture Hours)  
Python is becoming more and more popular for doing data science worldwide, especially companies are using python to gather insights from their data and get a competitive edge. This course focuses on Python specifically for geospatial data science. Students will learn about powerful approaches to store and manipulate data as well as cool data science tools to start their own analyses.

GSEN 6365  Spatial Database Design  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on spatial database principles and the practical skills of design, implementation, and use of spatial databases. This course will first cover fundamentals of relational database design, and then focus on design and management of spatial databases utilizing geodatabase models. In addition, case studies of geodatabase design models in several applications will also be covered. This course is intended for students who want to design, create, maintain and manipulate data from a geospatial database. Spring.
GSEN 6367 Geospatial Data Mining  
3 Semester Credit Hours (3 Lecture Hours)  
Geospatial data mining is the process of automatically discovering interesting and useful spatial patterns in large geospatial datasets. This course begins by covering fundamental concepts and techniques in data mining. Specific topics covered include classification, association analysis, and clustering analysis. It then focuses on using these data mining techniques for handling spatial, temporal, and spatio-temporal data. In addition, the data mining tools to implement applications in geoscience will also be covered. Spring.

GSEN 6370 UAS for Surveying and Mapping  
3 Semester Credit Hours (3 Lecture Hours)  
Introduces the fundamentals of mapping with small Unmanned Aircraft Systems (sUAS) using digital imaging sensors to produce high resolution, accurate geospatial surveying products. The course will cover the full spectrum of UAS mapping including technology, current regulations, operational factors, flight design, photogrammetric data processing, and data fidelity. Supporting concepts will include georeferencing and ground control, 3D reconstruction with structure-from-motion photogrammetry, orthorectification and image mosaicking, accuracy assessment, and current developments in UAS for geomatics. Processing and analysis workflows using commercial and open-source software will be conducted to transform UAS image sequences into geospatial data products, extract analytics, assess results, and optimize output. Spring.

GSEN 6371 Geopositioning Systems and Autonomous Navigation  
3 Semester Credit Hours (3 Lecture Hours)  
Addresses the foundations and computational techniques of Global Navigation Satellite Systems (GNSS) and inertial measurement units (IMUs) for autonomous navigation applications. Specifically, the course will cover concepts and principles of GNSS signal structures and the derivation of observables; error sources and corrections; point, differential, and inertial positioning techniques; IMU linear and angular dynamics modeling; mechanization of inertial navigation and error propagation; global/local coordinate frames and conversion; and filtering techniques for GNSS/IMU integration. The course also covers current and future capabilities of emerging geopositioning systems as they relate to autonomous navigation and mobile devices. Fall.

GSEN 6380 Applied Geospatial Statistics  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on geospatial statistics methods particularly multivariate statistics and applications of the statistical procedures to research geospatial problems. Research on geospatial problems often requires the application of multivariate statistical methods to produce new insight. Various existing statistic software is available to conduct multivariate statistical analysis, however, the interpretation of the results rely on solid understanding of statistic principles and theories. This course is intended for students who want to apply statistical methods to research geospatial problems.

GSEN 6381 Cadastral Information Systems Design  
3 Semester Credit Hours (3 Lecture Hours)  
A review of the evolution of European cadastral systems and land records traditions and alternatives. Examination of the goals and purposes of land tenure systems with attention to social, political, legal, economic, organizational, and technical issues. Exploration of U.S. modernization efforts and the problems of developing countries. Spring odd years.

GSEN 6382 Policy and Legal Aspects of Spatial information Systems  
3 Semester Credit Hours (3 Lecture Hours)  
A study of the current and emerging status of computer law in electronic environments. Covers issues related to: privacy, freedom of information, confidentiality, copyright, and legal liability; the impact of statute and case law on use of digital databases and spatial databases; and research of legal options of conflicts related to spatial data. Fall.

GSEN 6383 Advanced Geospatial Analytics  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on the theory, techniques, and applications of advanced geospatial analytics. Topics covered include spatial point patterns, network analysis, area objects and spatial autocorrelation, and spatial interpolation. New approaches to geospatial analytics will also be covered. This course emphasizes the methods and the applied side of geospatial analytics that can be useful in students’ own theses or projects for their current or potential employers. Fall.

GSEN 6384 Geospatial Visualization Design  
3 Semester Credit Hours (3 Lecture Hours)  
This course will ensure that students understand and apply cartographic theory for visual communication and visual thinking, and be able to create, evaluate, and critique reference and thematic maps using GIS software. Fall.

GSEN 6385 Photogrammetric Engineering and Lidar Scanning  
3 Semester Credit Hours (3 Lecture Hours)  
A study of the analytical and systems engineering foundations of airborne photogrammetry and geodetic imaging technologies for 2D and 3D mapping of natural and built environments. The course covers principles of digital imaging, camera calibration, stereo and multi-view photogrammetry, analytical photogrammetry, structure-from-motion, light detection and ranging (lidar) systems, and emergent scanning and imaging approaches. The course also details photogrammetric and lidar data processing, point cloud analysis, and applications.

GSEN 6386 Remote Sensing and Image Analysis  
3 Semester Credit Hours (3 Lecture Hours)  
Addresses the interpretation, processing and analysis techniques of remotely sensed data acquired by orbital and sub-orbital platforms. Physical principles and imaging mechanisms, remote sensing systems, data characteristics, image processing, and information extraction methods will be covered. Topics include passive optical imaging with multispectral, hyperspectral, and thermal sensing; active imaging with radar sensing; image corrections and rectification; spatial/frequency transforms and image filtering; image classification and feature extraction; and image processing with machine learning techniques. Applications in the course will be focused on geomatics and monitoring of natural and built environments. Fall.

GSEN 6390 Advanced Topics  
3 Semester Credit Hours (3 Lecture Hours)  
Variable content study of specific areas of geospatial surveying engineering. May be repeated for credit when topics vary. Offered on sufficient demand.

GSEN 6396 Directed Independent Study  
3 Semester Credit Hours (3 Lecture Hours)  
Study in areas of current interest.

Courses A-Z  

For list of graduate courses see here (http://catalog.tamucc.edu/graduate/courses-az/G-Courses.pdf).
Accounting (ACCT)

ACCT 5312 Foundations of Accounting
3 Semester Credit Hours (3 Lecture Hours)

Theoretical and applied facets of financial and managerial accounting for business. The course includes preparation and communication of financial information as well as the uses of accounting data in planning and controlling activities of business firms and other types of organizations. (This is a core course.) Not open to students who have completed six semester hours of accounting.
ACCT 5315 Accounting Topics
3 Semester Credit Hours (3 Lecture Hours)
A continuation of financial and managerial accounting with emphasis on applications, and analysis and interpretation of financial statements.
Prerequisite: ACCT 5312.

ACCT 5317 Oil, Gas and Energy Accounting
3 Semester Credit Hours (3 Lecture Hours)
This course covers the basic principles of oil and gas accounting. Course topics include upstream oil and gas operations, successful efforts accounting, full cost pool accounting, accounting for production, exploration and construction, joint interest accounting, international operations, oil and gas taxation and analysis of oil and gas financial statements.
Prerequisite: ACCT 3311.

ACCT 5332 Controllership
3 Semester Credit Hours (3 Lecture Hours)
Development and integration of budgets, variable budgets, cash budgets, capital budgets, and cost-volume-profit analysis for operational planning and financial controls. Case Study orientation.
Prerequisite: ACCT 5312.

ACCT 5337 Taxes and Business Strategy
3 Semester Credit Hours (3 Lecture Hours)
A framework to analyze how tax rules affect decision-making. Cases and problems, taken from historical and current developments in tax planning, develop understanding of how changes in tax rules influence the behavior of various constituents in the broad business and regulatory environment.
Prerequisite: ACCT 5312.

ACCT 5340 Forensic Accounting
3 Semester Credit Hours (3 Lecture Hours)
The course will cover the concepts and skills of forensic accounting investigations. The course focuses on the methods and technological tools used to detect occupational fraud. These include the steps in conducting an investigation, use of technological tools, witness and suspect interviewing techniques, investigation report writing, and expert testimony.
Prerequisite: ACCT 3340 or 4311.

ACCT 5341 Advanced Auditing and Assurance Services
3 Semester Credit Hours (3 Lecture Hours)
This course is designed as a discussion-based seminar and case analysis to provide graduate students with an understanding of auditing theory, practice, and research methods. This course continues from Auditing Principles and Procedures (ACCT 4311) by implementing the auditing principles, standards, procedures, and practices learned in that course and applying them in case analysis. Topics include research of professional accounting and auditing standards, technical memo writing, professional ethics, professional judgment, sampling, forensic examinations, integrated audits, quality control reviews, assurance services, and other contemporary issues in auditing.

ACCT 5345 Ethics for Texas CPA Candidates and Business Executives
3 Semester Credit Hours (3 Lecture Hours)
The course will cover ethical theory, ethical reasoning, integrity, objectivity, independence and other core values and regulatory requirements associated with the practice of professional accounting and decision making of other executives, with an emphasis on corporate governance in the post-Sarbanes-Oxley regulatory environment. This course satisfies the ethics education requirement of the Texas State Board of Public Accountancy (TBSBA); however, it will not be counted for advanced accounting hours required to sit for the CPA exam. Students who receive credit for ACCT 4345 cannot also receive credit for ACCT 5345.

ACCT 5351 Strategic Cost Management
3 Semester Credit Hours (3 Lecture Hours)
A conceptual approach to the use of cost accounting information to support decision-makers as they develop, communicate, implement, evaluate and modify organizational strategy. The linkage between cost management and strategy is facilitated by examining such tools as: cost driver, value chain, and organizational design analyses.

ACCT 5355 Information Systems in Accounting
3 Semester Credit Hours (3 Lecture Hours)
A study of current topics in accounting information systems. Topics include the role of accounting information systems and their applications in a variety of computer environments including the Internet, service organizations, and centralized and decentralized environments.

ACCT 5370 Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
in an identified topic in accounting. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

ACCT 5371 Professional Accounting Research
3 Semester Credit Hours (3 Lecture Hours)
Course presents practice of general accounting research. Content includes study of professional research using authoritative standards and databases. The course develops procedures for identifying the applicable accounting issues, locating appropriate authority, and communicating the results of professional research. Through comprehensive case studies, students will obtain hands-on experience in researching and evaluating technical accounting, tax, and audit issues.

ACCT 5381 Accounting Theory
3 Semester Credit Hours (3 Lecture Hours)

ACCT 5391 Integrative Seminar in Accounting
3 Semester Credit Hours (3 Lecture Hours)
The use of case studies to explore the integration of financial accounting, auditing, taxation, managerial accounting and accounting information systems to assess their relationship individually and collectively to business decision-making. Must be taken at the end of the program after completion of all advanced, non-elective courses. In unusual circumstances, it may be taken concurrently with the final non-elective courses with the written permission of the Director of Master's Programs.
Applied Music (MUAP)

MUAP 5101 SECONDARY VIOLIN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5102 SECONDARY VIOLIN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5105 SECONDARY VIOLIN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5106 SECONDARY VIOLA STUDIO
1 Semester Credit Hour
NCD.

MUAP 5109 SECONDARY VIOLONCELLO STUDIO
1 Semester Credit Hour
NCD.

MUAP 5110 SECONDARY VIOLONCELLO STUDIO
1 Semester Credit Hour
NCD.

MUAP 5113 SECONDARY DOUBLE BASS STUDIO
1 Semester Credit Hour
NCD.

MUAP 5114 SECONDARY DOUBLE BASS STUDIO
1 Semester Credit Hour
NCD.

MUAP 5117 SECONDARY FLUTE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5118 SECONDARY FLUTE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5121 SECONDARY OBOE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5122 SECONDARY OBOE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5125 SECONDARY BASSOON STUDIO
1 Semester Credit Hour
NCD.

MUAP 5126 SECONDARY BASSOON STUDIO
1 Semester Credit Hour
NCD.

MUAP 5129 SECONDARY CLARINET STUDIO
1 Semester Credit Hour
NCD.

MUAP 5130 SECONDARY CLARINET STUDIO
1 Semester Credit Hour
NCD.

MUAP 5133 SECONDARY SAXOPHONE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5134 SECONDARY SAXOPHONE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5137 SECONDARY TRUMPET STUDIO
1 Semester Credit Hour
NCD.

MUAP 5138 SECONDARY TRUMPET STUDIO
1 Semester Credit Hour
NCD.

MUAP 5141 SECONDARY HORN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5142 SECONDARY HORN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5145 SECONDARY TROMBONE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5146 SECONDARY TROMBONE STUDIO
1 Semester Credit Hour
NCD.

MUAP 5149 SECONDARY EUPHONIUM STUDIO
1 Semester Credit Hour
NCD.

MUAP 5150 SECONDARY EUPHONIUM STUDIO
1 Semester Credit Hour
NCD.

MUAP 5153 SECONDARY TUBA STUDIO
1 Semester Credit Hour
NCD.

MUAP 5154 SECONDARY TUBA STUDIO
1 Semester Credit Hour
NCD.

MUAP 5157 SECONDARY PERCUSSIONION
1 Semester Credit Hour
NCD.

MUAP 5158 SECONDARY PERCUSSION STUDIO
1 Semester Credit Hour
NCD.

MUAP 5161 SECONDARY GUITAR STUDIO
1 Semester Credit Hour
NCD.

MUAP 5162 SECONDARY GUITAR STUDIO
1 Semester Credit Hour
NCD.

MUAP 5165 SECONDARY ORGAN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5166 SECONDARY ORGAN STUDIO
1 Semester Credit Hour
NCD.

MUAP 5169 SECONDARY PIANO STUDIO
1 Semester Credit Hour
NCD.
MUAP 5170  SECONDARY PIANO STUDIO
1 Semester Credit Hour
NCD.
MUAP 5181  SECONDARY VOICE STUDIO
1 Semester Credit Hour
NCD.
MUAP 5182  SECONDARY VOICE STUDIO
1 Semester Credit Hour
NCD.
MUAP 5187  SECONDARY JAZZ GUITAR STUDIO
1 Semester Credit Hour
NCD.
MUAP 5188  SECONDARY JAZZ GUITAR STUDIO
1 Semester Credit Hour
NCD.
MUAP 5189  PRINCIPAL JAZZ GUITAR STUDIO
1 Semester Credit Hour
NCD.
MUAP 5190  PRINCIPAL JAZZ GUITAR STUDIO
1 Semester Credit Hour
NCD.
MUAP 5203  PRINCIPAL VIOLIN STUDIO
2 Semester Credit Hours
NCD.
MUAP 5204  PRINCIPAL VIOLIN STUDIO
2 Semester Credit Hours
NCD.
MUAP 5207  PRINCIPAL VIOLA STUDIO
2 Semester Credit Hours
NCD.
MUAP 5208  PRINCIPAL VIOLA STUDIO
2 Semester Credit Hours
NCD.
MUAP 5211  PRINCIPAL VIOLONCELLO STUDIO
2 Semester Credit Hours
NCD.
MUAP 5212  PRINCIPAL VIOLONCELLO STUDIO
2 Semester Credit Hours
NCD.
MUAP 5215  PRINCIPAL DOUBLE BASS STUDIO
2 Semester Credit Hours
NCD.
MUAP 5216  PRINCIPAL DOUBLE BASS STUDIO
2 Semester Credit Hours
NCD.
MUAP 5219  PRINCIPAL FLUTE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5220  PRINCIPAL FLUTE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5223  PRINCIPAL OBOE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5224  PRINCIPAL OBOE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5227  PRINCIPAL BASSOON STUDIO
2 Semester Credit Hours
NCD.
MUAP 5228  PRINCIPAL BASSOON STUDIO
2 Semester Credit Hours
NCD.
MUAP 5231  PRINCIPAL CLARINET STUDIO
2 Semester Credit Hours
NCD.
MUAP 5232  PRINCIPAL CLARINET STUDIO
2 Semester Credit Hours
NCD.
MUAP 5235  PRINCIPAL SAXOPHONE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5236  PRINCIPAL SAXOPHONE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5239  PRINCIPAL TRUMPET STUDIO
2 Semester Credit Hours
NCD.
MUAP 5240  PRINCIPAL TRUMPET STUDIO
2 Semester Credit Hours
NCD.
MUAP 5243  PRINCIPAL HORN STUDIO
2 Semester Credit Hours
NCD.
MUAP 5244  PRINCIPAL HORN STUDIO
2 Semester Credit Hours
NCD.
MUAP 5247  PRINCIPAL TROMBONE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5248  PRINCIPAL TROMBONE STUDIO
2 Semester Credit Hours
NCD.
MUAP 5251  PRINCIPAL EUPHONIUM STUDIO
2 Semester Credit Hours
NCD.
MUAP 5252  PRINCIPAL EUPHONIUM STUDIO
2 Semester Credit Hours
NCD.
MUAP 5255  PRINCIPAL TUBA STUDIO
2 Semester Credit Hours
NCD.
MUAP 5256  PRINCIPAL TUBA STUDIO
2 Semester Credit Hours
NCD.
MUAP 5259  PRINCIPAL PERCUSSION STUDIO
2 Semester Credit Hours
NCD.
MUAP 5260 PRINCIPAL PERCUSSION STUDIO
2 Semester Credit Hours
NCD.

MUAP 5263 PRINCIPAL GUITAR STUDIO
2 Semester Credit Hours
NCD.

MUAP 5264 PRINCIPAL GUITAR STUDIO
2 Semester Credit Hours
NCD.

MUAP 5267 PRINCIPAL ORGAN STUDIO
2 Semester Credit Hours
NCD.

MUAP 5268 PRINCIPAL ORGAN STUDIO
2 Semester Credit Hours
NCD.

MUAP 5271 PRINCIPAL PIANO STUDIO
2 Semester Credit Hours
NCD.

MUAP 5272 PRINCIPAL PIANO STUDIO
2 Semester Credit Hours
NCD.

MUAP 5283 PRINCIPAL VOICE STUDIO
2 Semester Credit Hours
NCD.

MUAP 5284 PRINCIPAL VOICE STUDIO
3 Semester Credit Hours
NCD.

Art (ARTS)

ARTS 5191 Graduate Professional Practices Seminar
1 Semester Credit Hour
A graduate seminar devoted to professional practices, in a contemporary context, for artistic production and academic pedagogy in Studio Art. Professional practices covered may include but are not limited to development of artist statements, teaching philosophy statements, curriculum vitae, websites, and application dossiers for galleries, grants, and residencies along with the investigation into non-profit organizations, the role of the arts in civic economic development, and curatorial practices for a range of arts institutions from artist-run to museums. This course receives one hour of credit per semester. The course may be repeated three times for credit.

ARTS 5192 Graduate Critique Seminar
1 Semester Credit Hour
An interdisciplinary graduate seminar in Studio Art devoted to the critique of artistic production in a contemporary cultural context. This course consists of structured peer-centered critiques. Students will become adept in both the language of critique and critique structures. Works are examined in an interdisciplinary context allowing students to comprehend their work through multiple perspectives while also providing opportunities for cross-disciplinary collaboration. This course receives one hour of credit per semester. The course may be repeated three times for credit.

ARTS 5301 Workshop in Art
1-6 Semester Credit Hours (1-6 Lecture Hours)
Current trends and approaches in art with emphasis on contemporary processes and techniques in studio work. May be repeated when topics vary. Offered on sufficient demand.
Co-requisite: SMTE 0097.

ARTS 5312 MFA Studio in Art: Ceramics
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in ceramics.
Co-requisite: SMTE 0097.

ARTS 5313 MFA Studio in Art: Drawing
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in drawing.
Co-requisite: SMTE 0097.

ARTS 5314 MFA Studio in Art: Graphic Design
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in graphic design.

ARTS 5315 MFA Studio in Art: Painting
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in painting.
Co-requisite: SMTE 0097.

ARTS 5316 MFA Studio in Art: Photography
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in photography.
Co-requisite: SMTE 0097.

ARTS 5317 MFA Studio in Art: Printmaking
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in printmaking.
Co-requisite: SMTE 0097.

ARTS 5318 MFA Studio in Art: Sculpture
3 Semester Credit Hours (3 Lecture Hours)
Individual study and direction in sculpture.
Co-requisite: SMTE 0097.

ARTS 5320 Graduate Critique Seminar
3 Semester Credit Hours
An interdisciplinary fine art graduate seminar devoted to the analysis of artistic production in a contemporary cultural context, consisting of peer-centered critiques. Students will become adept in both the language and structures of critique. In addition to graduate level artistic production, students will conduct research and present scholarly articles relevant to their work for class discussion. Works are examined in an interdisciplinary context allowing students to comprehend their studio practice through multiple perspectives and opportunities for cross-disciplinary collaboration.

ARTS 5391 MFA Seminar in Art
3 Semester Credit Hours (3 Lecture Hours)
Various thematic discussions and projects pertaining to studio work under the guidance of a studio faculty member, and possible guest lecturers and artists.
ARTS 5392  Art Theory and Methods
3 Semester Credit Hours (3 Lecture Hours)
The course will cover key developments in the evolution of art historiography, aesthetic theory and methods. Students will be engaged in discussions related to the practice of art history from an historiographical perspective and will conduct verbal and written analyses in connection with primary and secondary sources derived from canonical scholarship. The course will include discussion of theoretical and methodological texts from antiquity and the Middle Ages, to the early Modern period, the Enlightenment, the nineteenth and twentieth centuries, to postmodernity and the contemporary era. These analyses will consider notions of aesthetics, historiography, deconstruction, authorship, various modes of identity formation, and globalization. Students will become proficient in a wide range of aesthetic, historiographical, theoretical, and methodological practices related to fine arts disciplines.

ARTS 5393  Seminar in Art History and Aesthetics
3 Semester Credit Hours (3 Lecture Hours)
Study in specific areas of art history and aesthetics. May be repeated when topics vary.

ARTS 5394  Directed Research
3 Semester Credit Hours
This course entails a faculty-led research project as related to selected Studio Art and Design topics, focused on reading and writing. Students will conduct research utilizing relevant archival material and databases along with direct contact with contemporary artists, art historians, critics, curators, and other cultural professionals as appropriate. Students can enroll in this course in any semester within the MFA program with the approval of the graduate student's thesis committee. The course is offered during any semester upon request by the student and with the consent of the instructor.

ARTS 5395  MFA Thesis
3 Semester Credit Hours
This course concentrates on research and writing in creative scholarship as related to the Candidate's discipline, concentration area(s), and research. The MFA Candidate is responsible for a written Thesis that provides textual support for their Exhibition or Project, executed under the MFA Project course. Candidates can enroll with the approval of the Thesis Committee. A specific syllabus for the Candidate's chosen discipline and concentration(s) will be provided to them under this course.
Co-requisite: SMTE 0097.

ARTS 5396  Individual Study
1-3 Semester Credit Hours (1-3 Lecture Hours)
A carefully planned special study on an academic topic not offered as part of the regular graduate curriculum. Directed Individual Study (DIS) is a tutorial, directed and evaluated by a member of the graduate art faculty. Enrollment is restricted to graduate students who have demonstrated both academic ability and the capacity for independent work. Complete applications must be filed and approved by a committee of the graduate art faculty and the Dean of Liberal Arts in advance of registration.
Co-requisite: SMTE 0097.

ARTS 5397  Graduate Teaching Assistant Practicum
3 Semester Credit Hours
Practical training in instruction for MFA graduate students under the declared Graphic Design discipline. This course is designed for graduate students to assist an assigned program faculty mentor and their undergraduate students. As a practicum course, the graduate student will spend the majority of their time in the classroom when class is in session. The graduate student, in the role of lead instructor, is expected to deliver course content and lectures designed by the program faculty mentor and to assist undergraduate course students in obtaining course learning objectives.

ARTS 5398  MFA Project
3 Semester Credit Hours
This course concentrates on creation and execution in creative scholarship as related to the MFA Candidate's discipline, concentration area(s), and research. Candidates can enroll with approval of their Thesis Committee. A specific syllabus for the Candidate's chosen discipline and concentration(s) will be provided to them under this course.

ARTS 5399  Gallery and Museum Practices
3 Semester Credit Hours (3 Lecture Hours)
Study of the functions of galleries and museums: curating, preparation, grantsmanship, crating, documentation, and publicity. Visits to galleries and museums will be made around South Texas as well as Houston.
Co-requisite: SMTE 0097.

Bilingual/ESL/Multicultural Ed (BIEM)

BIEM 5343  Foundations in Bilingual Education
3 Semester Credit Hours (3 Lecture Hours)
A study of bilingualism and bilingual education in the United States with attention to rationale, philosophy, and program models.

BIEM 5344  Methods of Teaching Bilingual Children
3 Semester Credit Hours (3 Lecture Hours)
Methods and techniques of teaching bilingual students in elementary schools. Emphasis is on teaching Spanish language arts.

BIEM 5345  Developmental Linguistics
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and development with special reference to their implications for teaching monolingual and bilingual students.

BIEM 5346  Pedagogical Implications of Bilingual/ESL
3 Semester Credit Hours (3 Lecture Hours)
Overview of curriculum alignment in the bilingual classroom. Includes analysis of language assessment instruments and the pedagogical implications associated with the education of culturally and linguistically diverse students. Students who have taken BIEM 5346 may not enroll in BIEM 6346.

BIEM 5347  Methods of Teaching English As a Second Language
3 Semester Credit Hours
Advanced studies in methodology and techniques available for teaching learners whose native language is not English. Some attention to sociolinguistics is considered.

BIEM 5349  Contrastive Analysis
3 Semester Credit Hours (3 Lecture Hours)
A descriptive/contrastive approach to the study of Spanish and English linguistic structures. Introduces basic concepts of language, linguistics, and bilingualism.
and how experience modulates these circuits.

This course explores how behaviors emerge from the activity of neural circuits. Using vertebrate and invertebrate animal models, this graduate-level course directs the student in an in-depth knowledge and skills in the content areas as they apply to the education of language minority children in appropriate multicultural, multilingual, and multilevel settings.

BIEM 5696 Directed individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

BIEM 6346 Pedagogical Implications of Bilingual/ESL
3 Semester Credit Hours (3 Lecture Hours)
Overview of curriculum alignment in the bilingual classroom. Includes analysis of language assessment instruments and the pedagogical implications associated with the education of culturally and linguistically diverse students. Students who have taken BIEM 5346 may not enroll in BIEM 6346.

Biology (BIOL)

BIOL 5102 Graduate Defense Seminar
1 Semester Credit Hour
Presentation of research conducted for MS degree. Should be taken during the last semester of resident graduate study. Open only to MS Thesis and Non-thesis Degree Candidates in Biology. Students can enroll in any semester with the approval of their graduate advisory committee chair.

BIOL 5301 Coral Reef Systems
3 Semester Credit Hours (3 Lecture Hours)
BIOL 5304 Virology
3 Semester Credit Hours (3 Lecture Hours)
Survey of bacteriophages and major pathogenic plant and animal viruses including Baltimore classification, viral replication, and emerging viral diseases. Emphasis on analysis and review of primary literature on viruses.
Prerequisite: BIOL 2416, 2421 and CHEM 3412.

BIOL 5308 Biogeography
3 Semester Credit Hours (3 Lecture Hours)
Selected reading, discussion and projects concerning the geographic distribution of plants and animals.
Prerequisite: BIOL 3428 and 3414.

BIOL 5309 Systematics
3 Semester Credit Hours (3 Lecture Hours)
Theories, methods, molecular and evolutionary basis of systematic biology; and rules and relationships of nomenclature used in classification.

BIOL 5310 Physiological Adaptations in Animals
3 Semester Credit Hours (3 Lecture Hours)
A study of the physiological adaptations of animals to their environment, including osmoregulatory and temperature regulatory mechanisms.
Prerequisite: BIOL 3430.

BIOL 5311 Cellular Bases of Behavior
3 Semester Credit Hours (3 Lecture Hours)
Using vertebrate and invertebrate animal models, this graduate-level course explores how behaviors emerge from the activity of neural circuits and how experience modulates these circuits.

BIOL 5319 Biology of Marine Mammals
3 Semester Credit Hours (3 Lecture Hours)
Introduction to marine mammals, with a focus on their interactions with their biotic and abiotic environment.

BIOL 5322 Molecular Genetics
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of the molecular basis of genetic interactions; focus on molecular mechanisms of mutation, suppression and recombination.
Prerequisite: CHEM 3412, BIOL 2416 and 3403.

BIOL 5329 Plant Adaptations
3 Semester Credit Hours (3 Lecture Hours)
Emphasis on living gymnosperms and angiosperms and their adaptive significance.

BIOL 5334 Biology and Ecology of Coral Reefs
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce the biology of corals, describe the abiotic and biotic interactions among coral reef ecosystem inhabitants, identify the threats of climate change, and discuss the conservation and management of reefs for the future. Offered every spring.

BIOL 5335 Aquatic Microbiology
3 Semester Credit Hours (3 Lecture Hours)
Types and distribution of microorganisms in aquatic environments. Interactions with other organisms. Role in nutrient cycling, degradation of organic substances, pollution, water purification.
Prerequisite: BIOL 2421.
Co-requisite: SMTE 0092.

BIOL 5340 Genomics, Proteomics and Bioinformatics
3 Semester Credit Hours (3 Lecture Hours)
Integrative biological study using genome-wide approaches and bioinformatics. The "-omics" technologies (Genomics, Proteomics, Metabolomics, etc) will be reviewed. Applications to understanding biological function in various biological disciplines will be emphasized. Offered during fall. Cross listed with MARB 6342.
Prerequisite: BIOL 2416 and 3410 or CHEM 4301.

BIOL 5355 Public Aquarium and Animal Care Operations
3 Semester Credit Hours (3 Lecture Hours)
This course examines the unique requirements needed for aquariums and zoos to balance animal care and health with public display for general education and conservation research.
Co-requisite: SMTE 0091.

BIOL 5371 Evolutionary Genetics
3 Semester Credit Hours (3 Lecture Hours)
EVOLUTIONARY GENETICS An advanced introduction to evolutionary processes and their genetic basis, focusing on theoretical and experimental approaches to the study of population genetics, phylogeography, coalescence theory, evolutionary ecology, and molecular evolution.

BIOL 5392 Thesis Proposal
3 Semester Credit Hours
Thesis track students must complete a proposal for their thesis project. A proposal is considered complete when it is approved and signed by all members of the student’s graduate advisory committee. Open only to thesis track students in the MS Biology program. Qualified students can enroll in any semester with the approval of their graduate advisory committee chair.
BIOL 5393  Thesis Research
3 Semester Credit Hours
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted for initial editing and comment. A course section will be created for the student to enroll. Students can enroll in any semester with the approval of their graduate advisory committee chair.
Prerequisite: BIOL 5392.

BIOL 5394  Thesis Submission
3 Semester Credit Hours
The final draft of the thesis is completed, approved by the graduate advisory committee, and is readied for distribution. Students can enroll in any semester with the approval of their graduate advisory committee chair.
Prerequisite: (BIOL 5392 and 5393).

BIOL 5396  Directed Independent Study
1-3 Semester Credit Hours (1-3 Lecture Hours)
Study in areas of current interest. Credit is not given for research on the thesis project. A total of six semester hours of Directed Independent Study may be counted toward the MS degree.

BIOL 5397  Directed Research
3 Semester Credit Hours
For students in the MS Biology Professional track. Field, laboratory, and/or library research that results in the production of the professional paper, its approval by the graduate advisory committee, and its final submission. Students can enroll in any semester with the approval of their graduate advisory committee chair. This course must be successfully completed for the professional track student to complete the MS degree.

BIOL 5406  Immunology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
An in-depth study of immunology. Emphasizes function and interaction of specific cells, cytokines, lymphokines, antibodies and molecules that are the essential components of the immune system. The course includes up-to-date coverage of both innate and adaptive immunity, and the immune system in health and disease.
Prerequisite: BIOL 2421.
Co-requisite: SMTE 0092.

BIOL 5408  Microbial Ecology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.
Co-requisite: SMTE 0092.

BIOL 5410  Mammalogy
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The course is designed for graduate students in biology wanting to acquire a more detailed working knowledge and appreciation of mammalian diversity in structure, function, ethology, and ecology. Knowledge and skills acquired in this course will be useful to field and laboratory studies in ecology, evolution, animal behavior, biogeography, wildlife management, and related disciplines. Offered in even Fall semester.
Co-requisite: SMTE 0091.

BIOL 5411  Ethology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Adaptive aspects of animal behavior.
Co-requisite: SMTE 0091.

BIOL 5412  Ecology of Fresh Waters
4 Semester Credit Hours (4 Lecture Hours)
ECOLOGY OF FRESH WATERS Ecological relationships and productivity of freshwater communities, including rivers, lakes and wetlands. Focus is on interactions of the physical, chemical and biotic environment and influence of human activities on systems.
Co-requisite: SMTE 0091.

BIOL 5414  Growth and Development
4 Semester Credit Hours (4 Lecture Hours)
Special topics involving growth and development in plants and animals.
Co-requisite: SMTE 0092.

BIOL 5415  Biology of Estuarine Organisms
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Systematics, distribution, and ecology of estuarine macrofauna and macroflora. Weekend field trips and individual study required.
Prerequisite: BIOL 3413.
Co-requisite: SMTE 0091.

BIOL 5417  Field Biology
4 Semester Credit Hours (1 Lecture Hour, 6 Lab Hours)
A hands-on course designed to teach students key concepts by immersing them in nature. Topics include adaptations of plants and animals in different habitats, food web interactions, and how biotic and abiotic forces interact to structure natural communities including spatial and temporal variation in communities.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

BIOL 5420  Application of Molecular Techniques
4 Semester Credit Hours (4 Lecture Hours)
Application of DNA-RNA technology to selected scientific problems. Emphasis on current research techniques.
Prerequisite: BIOL 3403 and CHEM 3411.
Co-requisite: SMTE 0092.

BIOL 5422  Plant Taxonomy
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Experimental and analytical approaches to plant variation and evolution, breeding systems, cyto- and molecular genetics, hybridization and phylogeny. The course will present a foundational approach to the methods, research and terminology of plant systematics and summarize information on the most recent knowledge of evolutionary relationships as well as practical information vital to field work.
Co-requisite: SMTE 0091.

BIOL 5425  Ornithology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The course is designed for graduate students in biology wanting to acquire a more detailed working knowledge and appreciation of avian diversity in structure, function, ethology, and ecology. Knowledge and skills acquired in this course will be useful to field and laboratory studies in ecology, evolution, animal behavior, biogeography, wildlife management, and related disciplines. Offered in odd Fall semesters.
Co-requisite: SMTE 0091.

BIOL 5426  Avian Biology
4 Semester Credit Hours (4 Lecture Hours)
NCD
Co-requisite: SMTE 0091.
BIOL 5427 Coastal Ecology of Texas
4 Semester Credit Hours (4 Lecture Hours)
COASTAL ECOLOGY OF TEXAS Study of the ecology and environmental issues of the Texas coast. Includes field trips along the entire Texas coastline.
Co-requisite: SMTE 0091.

BIOL 5428 Fisheries Biology
4 Semester Credit Hours (4 Lecture Hours)
FISHERIES BIOLOGY Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project. The laboratory will emphasize practical sampling design and data interpretation.

BIOL 5429 Marine Botany
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Marine plants are a diverse group that includes unicellular algae, seaweeds, seagrasses, salt marshes, and mangrove forests. The goal is to present taxonomic, physiological, chemical, and ecological aspects of marine plants, their adaptations, and how abiotic and biotic factors interact in their communities. The use of recent journals and original scientific research will allow the student to evaluate anthropogenic effects to these communities and develop methods of restoration and management.
Co-requisite: SMTE 0091.

BIOL 5430 Marine Plankton
4 Semester Credit Hours (4 Lecture Hours)
Investigation of the systematics, distribution, and ecology of marine plankton. Cross listed with MARB 6430.
Co-requisite: SMTE 0091.

BIOL 5431 Phycology
4 Semester Credit Hours (4 Lecture Hours)
Study of the major groups of freshwater and marine algae; morphology, ecology, systematics, life cycles, and physiology. Laboratories emphasize collection, identification, and culturing techniques.
Co-requisite: SMTE 0092.

BIOL 5432 Ichthyology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The study of fish encompassing species diversity, natural history, and evolutionary and ecological relationships of fishes. This course will consist of four major parts: (1) Evolution, (2) Systematics, (3) Biology, and (4) Ecology of fish. Laboratory identification of marine and freshwater fishes from the University archives and collected during field excursions.
Co-requisite: SMTE 0091.

BIOL 5435 Biological Microtechniques
4 Semester Credit Hours (2 Lecture Hours, 4 Lab Hours)
The theory and practice of using histochemical and microscopic techniques to prepare tissues and small specimens for research analysis.
Prerequisite: CHEM 3411.
Co-requisite: SMTE 0092.

BIOL 5436 Marine Ecological Processes
4 Semester Credit Hours (4 Lecture Hours)
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

BIOL 5437 Ecology of Marine Plants
4 Semester Credit Hours (4 Lecture Hours)
Co-requisite: SMTE 0091.

BIOL 5442 Herpetology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A global perspective and current research topics on the biology of amphibians and reptiles.
Co-requisite: SMTE 0091.

BIOL 5446 Tropical Ecology and Conservation
4 Semester Credit Hours (4 Lecture Hours, 3 Lab Hours)
This is an overview course in major ecosystems in both the New and Old World tropics, the ecological principles at work in these systems, and the current threats and conservation approaches being used. It will be a hybrid course including lectures and journal readings/discussion (seminar-style).
Prerequisite: BIOL 3428.

BIOL 5452 Ecology and Evolution of Fishes
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
This course covers aspects of fish ecology from individual, population, community, and ecosystem levels. We discuss the role of the environment on fish physiology and behavior, food-web dynamics, community assembly and diversity, ecosystem interactions, and anthropogenic impacts on fishes with a focus on conservation.
Co-requisite: SMTE 0091.

BIOL 5590 Special Topics
5 Semester Credit Hours (5 Lecture Hours)
An advanced study of a biological topic. May be repeated with full credit in another area of biology. Topics vary by semester.

BIOL 5609 Field and Sampling Techniques
6 Semester Credit Hours (3 Lecture Hours, 6 Lab Hours)
Experience in field studies, organizing field notes, collecting and methods of preserving organisms for teaching and museum purposes. The course includes field ecological sampling methods, environmental data collection, safety, logistics, and proper scientific equipment operation.
Co-requisite: SMTE 0091.

BIOL 5940 Project Research
1-9 Semester Credit Hours (1-9 Lecture Hours)
Research related to the MS project. Open only to degree candidates in biology with consent of the graduate advisor. This course may be repeated as needed but a maximum of 4 hours can be applied to the MS degree in biology. Course is taken as credit/non-credit. Students can enroll in any semester with the approval of their graduate advisory committee chair.

BIOL 6371 Evolutionary Genetics
3 Semester Credit Hours (3 Lecture Hours)

BIOL 6446 Tropical Ecology and Conservation
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
TROPICAL ECOLOGY AND CONSERVATION Ecological processes and conservation issues in the tropics. Laboratory focuses on field techniques used to study tropical forest ecology. Principals of Ecology (BIOL 3428) or equivalent, or permission of instructor. SMTE 0091 is a co-requisite for this course. Documented completion of this safety training is required early in the semester for continued participation in this course.
Co-requisite: SMTE 0091.
Biomedical Sciences (BIMS)

BIMS 5311 Principles of Oncology
3 Semester Credit Hours (3 Lecture Hours)
This course is a study of the profile of cancer cells, and the various causes of human cancer. Contribution of heredity, environmental factors, and infectious agents to oncogenesis will be studied. The latest published information on cancer screening, diagnosis, and treatment will be discussed. Various types of cancer will be presented.
Prerequisite: BIOL 2416.

BIMS 5323 Neurosciences
3 Semester Credit Hours (3 Lecture Hours)
The anatomy and physiology of the vertebrate nervous system with emphasis on functions and actions of the central nervous system.
Prerequisite: CHEM 3412.

BIMS 5327 Toxicology
3 Semester Credit Hours (3 Lecture Hours)
This course will provide students requisite knowledge to design and supervise appropriate tests in vivo and in vitro in order to investigate the toxicity of substances and to assess the implications of the results. Students will be expected to have an appreciation of the toxicity of a number of representative compounds and be able to apply their knowledge to the evaluation of chemicals in pharmaceutical preparations, agriculture, food and consumer products, the workplace and the environment.

BIMS 5330 Biology of Aging
3 Semester Credit Hours (3 Lecture Hours)
An examination of one phase of the developmental process - the aging organism. Perspectives of aging in human beings and other organisms are reviewed. Topics include: demographics of human aging; research methodologies and measurements; development of age-related diseases; theories of aging; and anti-aging interventions.
Prerequisite: CHEM 3412, 4402 and BIOL 3430.

BIMS 5333 Public Health Entomology
3 Semester Credit Hours (3 Lecture Hours)
The medical, veterinary and forensic importance of arthropods; especially their relationships with host organisms, their role as hosts and vectors of disease-causing organisms, and strategies for their control. Involves discussion of research papers on these topics.

BIMS 5334 Medical Genetics
3 Semester Credit Hours (3 Lecture Hours)
A study of genetic influences on health and disease.
Prerequisite: CHEM 3412 and BIOL 2416.

BIMS 5374 Molecular Medical Microbiology
3 Semester Credit Hours (3 Lecture Hours)
Study of common pathogenic microorganisms in eukaryotic animals. Includes bacterial, viral, parasitic, and fungal infections, with emphasis on epidemiology, immunity, pathogenesis and treatment. Stress placed on case studies and didactic lectures, with presentations of updates on molecular basis of diseases based on current literature.
Prerequisite: BIOL 2421.

BIMS 5375 Microbial Pathogenesis
3 Semester Credit Hours (3 Lecture Hours)
Study of the mechanisms by which microorganisms invade a host and produce pathological symptoms associated with disease. Emphasis is on the chemical and molecular interaction between various pathogens and host cells, especially immune responses. Involves discussion of research papers on these topics.
Prerequisite: BIOL 2421.

BIMS 5396 Directed Independent Study
1-3 Semester Credit Hours
Study in an area of current interest. Credit is not given for research on the thesis project. A total of six semester hours of Directed Independent Study may be counted toward the MS degree.

BIMS 5410 Cells and Tissues
4 Semester Credit Hours (4 Lecture Hours)
Analysis of tissues: their cellular and sub-cellular components, and the unique properties that emerge when they interact to form organs. Lecture and laboratory emphasize normal mammalian tissues, and students explore other aspects of tissue biology through individual research projects.
Co-requisite: SMTE 0092.

BIMS 5590 Special Topics
1-5 Semester Credit Hours (1-5 Lecture Hours)
Variable content. Advanced study of a biomedical topic that may include current literature research. May be repeated for credit when topics are sufficiently different.

Business Law (BLAW)

BLAW 5330 Environmental Law and Policy
3 Semester Credit Hours (3 Lecture Hours)
This course offers a broad-based assessment of legal and legislative environmental issues affecting American industry and culture. Emphasis on key political, economic, social, legal and regulatory issues affecting current environmental law.

BLAW 5345 Business Ethics
3 Semester Credit Hours (3 Lecture Hours)
The course will cover ethical theory, ethical reasoning, integrity, objectivity, independence and other core values and regulatory requirements associated with the practice of professional accounting and decision making of other executives, with an emphasis on corporate governance in the post-Sarbanes-Oxley regulatory environment. Offered online only. Students who receive credit for ACCT 4345 or ACCT 5345 cannot also receive credit for BLAW 5345. This course does not meet the requirements of the Texas State Board of Public Accountancy Rule 511.58 for those students who plan to take the CPA Exam.

BLAW 5370 Seminar
1-3 Semester Credit Hours
in an identified topic in business law. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

BLAW 5396 Directed Individual Research Or Readings
1-3 Semester Credit Hours
Contact Director of Master's Programs.

Chemistry (CHEM)

CHEM 5302 Current Trends in Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The study and discussion of current topics and research efforts in chemistry. The course is intended to provide teachers with background and understanding that will enrich their classroom presentations in the chemistry curriculum. May be repeated for credit when topics vary. Offered on sufficient demand.
CHEM 5303 Research in the Chemical Sciences
3 Semester Credit Hours (3 Lecture Hours)
Studies and analysis of pertinent literature. May be repeated for credit, but credit may count only once towards the degree plan.

CHEM 5317 Advanced Instrumental Analysis
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of instrumental methods of analysis: spectroscopy, chromatography, and electrochemical methods.
Prerequisite: CHEM 3418.

CHEM 5321 Molecular Ecology
3 Semester Credit Hours (3 Lecture Hours)
A laboratory intensive graduate course that emphasizes the use of biochemical and molecular techniques to address ecological questions. Field sampling, sample preparation, biochemical and molecular genetic assays, statistical analysis and computer-based modeling techniques are used in a project-based approach to assess population genetic diversity, structure and migration rates in a key ecosystem species. Such estimates are of increasing concern for conservation and habitat management.

CHEM 5322 Supramolecular Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The course introduces advanced topics covering the areas synthetic molecular receptors, host-guest chemistry, biochemical self-assembly, crystal engineering and molecular templation. Supramolecular chemistry has been called "chemistry beyond the molecule" focusing on intermolecular interactions and forces leading to the formation complexes and superstructures in solution and in the solid-state. The material takes a classical approach to chemical pedagogy that instills the excitement of modern research areas in the chemical sciences. The course is designed at an advanced level for graduate students.
Prerequisite: CHEM 3412.

CHEM 5341 Advanced Organic Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The course introduces advanced topics covering the areas molecular structure and thermodynamics as well as reactivity, kinetics, and mechanisms of organic molecular architectures and ensembles. The material takes a classical approach to chemical pedagogy that instills the excitement of modern research areas in the chemical sciences. The course is designed at an advanced level for graduate students.
Prerequisite: CHEM 3412.

CHEM 5352 Computational Chemistry
3 Semester Credit Hours (3 Lecture Hours)
The course will include the investigation of the uses and outcomes of computational chemistry, including both classical (non-quantum) simulations of molecular systems and quantum mechanical modeling of molecules. Emphasis will be on constructing an appropriate molecular model, performing the appropriate calculation, and interpreting the results of the calculation.

CHEM 5356 Organic Geochemistry
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the properties and cycling of natural organic materials will be presented to benefit graduate students studying marine systems. The course is designed to follow the geologic cycle of organic matter, from production in living organisms to burial in sediments and preservation in the depositional record. Specific topics include factors controlling preservation in sediments, methanogenesis, diagenetic alterations of organic compounds, fossil fuel production and degradation, life in the deep biosphere, biomarkers for ancient life, and isotopic variations in the sedimentary record.

CHEM 5362 Chemical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
This course will cover both chemical processes in the oceanic environment and how biology, geology and physics affect the chemistry. Topics include air-sea interactions, water column chemistry, and reactions in sedimentary environments. Students are expected to participate in the teaching process through their involvement in small groups, class discussions, and modeling/simulation exercises.
Prerequisite: CHEM 1311 and 1312.

CHEM 5369 Advanced Molecular Spectroscopy
3 Semester Credit Hours (3 Lecture Hours)
The course is taught at the graduate level with the curriculum focusing on the advanced spectroscopic methods of molecular structure determination. The course aims to present foundational theoretical concepts of different molecular spectroscopy techniques including nuclear magnetic resonance, infrared, ultraviolet-visible, and mass spectroscopies and how these techniques are used to interpret spectra of unknown and structurally complex molecular analytes. This includes modes of absorption and emission, qualitative and quantitative uses and potential problems and limitations. The course has been designed for students who have completed organic chemistry II lecture and laboratory during their undergraduate career.

CHEM 5375 Stable Isotope Biogeochemistry
3 Semester Credit Hours (3 Lecture Hours)
This course teaches stable isotope systematics of five common light elements - carbon, nitrogen, hydrogen, oxygen and sulfur in biological, geological, and systems. Course material includes basic principles, analytical methods, thermodynamic and kinetic fractionations, and applications of stable isotope analyses in a wide range of natural systems. This course is recommended to graduate students in chemistry, geology, biological sciences, and coastal and marine system science.
Prerequisite: CHEM 1412.

CHEM 5392 Thesis Proposal
3 Semester Credit Hours
Review of the literature on a thesis topic. Completion of a written research proposal including proposed experimental design.

CHEM 5393 Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
THESIS RESEARCH Chemistry Thesis Track students only. Collection and organization of research data. To receive a qualitative grade, the student must present a first draft of the thesis manuscript to the thesis advisor. If the semester ends before the advisor receives the first draft, an "In Progress" is recorded and the course must be repeated.
Prerequisite: CHEM 5392.

CHEM 5394 Thesis Submission
3 Semester Credit Hours
Thesis defense and completion of the thesis manuscript including acceptance of the final copy by the advisory committee. May be repeated; no more than three hours may be taken per semester.

CHEM 5397 Directed Research
3 Semester Credit Hours
Chemistry Professional Track students only. Collection, organization and submission of research data. To receive a qualitative grade, the student must successfully defend the professional project, the student's graduate committee must accept the professional paper, and a final copy must be on file in the Dean's Office. If the semester ends before these are accomplished, an "In Progress" is recorded and the course must be repeated.
CHEM 5417 Advanced Environmental Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Advanced study of the impact of chemistry on the environment. Topics will include the chemistry of the natural environment and the modifications to that environment brought about by human activities. Includes readings in current literature and research on an environmental issue. Includes a laboratory component.
Prerequisite: CHEM 1412.
Co-requisite: SMTE 0093.

CHEM 5421 Aquatic Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A study of the chemistry of natural and polluted waters. Topics include chemical kinetic and equilibrium principles as applied to natural and polluted waters, and the ecotoxicological aspects of aquatic chemistry. In addition, critical readings in current literature and research on environmental issues will be discussed. Includes a laboratory component.
Co-requisite: SMTE 0093.

CHEM 5431 Environmental Instrumental Analysis
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A presentation of standard instrumental tools and instrumental methods used for the characterization of environmental pollutants and their distribution in the environment. Includes a laboratory component.

CHEM 5490 Advanced Topics
1-4 Semester Credit Hours (1 Lecture Hour, 1-3 Lab Hours)
Subject materials variable. Advanced topics including current literature research. May be repeated for credit when topics are sufficiently different.

CHEM 5596 Directed Independent Study
1-5 Semester Credit Hours
Study in areas of current interest. (A total of six hours of Directed Independent Study may be counted toward the MS degree.)

CHEM 5940 Project Research
1-9 Semester Credit Hours (3 Lecture Hours)
Student research on a project of interest. This variable credit hour course may be repeated in different semesters. Students may count up to six hours of CHEM 5940 toward the Chemistry Thesis Track or Professional Track with approval from the program coordinator.

CHEM 5993 Thesis Research
1-9 Semester Credit Hours
Chemistry Thesis Track students only. Collection, organization, and analysis of research data.

CHEM 6321 Molecular Ecology
3 Semester Credit Hours (3 Lecture Hours)
A laboratory intensive graduate course that emphasizes the use of biochemical and molecular techniques to address ecological questions. Field sampling, sample preparation, biochemical and molecular genetic assays, statistical analysis and computer-based modeling techniques are used in a project-based approach to assess population genetic diversity, structure and migration rates in a key ecosystem species. Such estimates are of increasing concern for conservation and habitat management. Offered on sufficient demand.

CHEM 6362 Chemical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
This course will cover both chemical processes in the oceanic environment and how biology, geology and physics affect the chemistry. Topics include air-sea interactions, water column chemistry, and reactions in sedimentary environments. Students are expected to participate in the teaching process through their involvement in small groups, class discussions, and modeling/simulation exercises. Offered on sufficient demand.
Prerequisite: CHEM 1411 and 1412.

CHEM 6375 Stable Isotope Biogeochemistry
3 Semester Credit Hours (3 Lecture Hours)
This course teaches stable isotope systematics of five common light elements - carbon, nitrogen, hydrogen, oxygen and sulfur in biological, geological, and systems. Course material includes basic principles, analytical methods, thermodynamic and kinetic fractionations, and applications of stable isotope analyses in a wide range of natural systems. This course is recommended to graduate students in chemistry, geology, biological sciences, and coastal and marine system science.
Prerequisite: CHEM 1412.

CHEM 6417 Advanced Environmental Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Advanced study of the impact of chemistry on the environment. Topics will include the chemistry of the natural environment and the modifications to that environment brought about by human activities. Includes readings in current literature and research on an environmental issue. Includes a laboratory component.
Prerequisite: CHEM 1412.

CHEM 6421 Aquatic Chemistry
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
A study of the chemistry of natural and polluted waters. Topics include chemical kinetic and equilibrium principles as applied to natural and polluted waters, and the ecotoxicological aspects of aquatic chemistry. In addition, critical readings in current literature and research on environmental issues will be discussed. Includes a laboratory component.

Coastal Marine Systems Science (CMSS)

CMSS 5392 Thesis I: Thesis Proposal
3 Semester Credit Hours (3 Lecture Hours)
Thesis students must submit a completed proposal for their thesis project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for CMSS 5393 Thesis Research. Open only to M.S. Thesis Degree Candidates in CMSS.

CMSS 5393 Thesis II: Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll.
Prerequisite: CMSS 5392.
CMSS 5394 Thesis III: Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
Completion of the final draft of the thesis, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll.
Prerequisite: CMSS 5393.
CMSS 5596 Directed Independent Study
1-5 Semester Credit Hours
Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the CMSS M.S. degree.
CMSS 5940 Thesis Project Research
1-9 Semester Credit Hours
Research related to the CMSS M.S. thesis project. Open only to M.S. students in CMSS with consent of the graduate advisor. Up to six hours may count as credit toward regular graded (non-research, non-variable credit) elective coursework for M.S. degree requirement in Coastal and Marine System Science.
CMSS 6303 Natural Systems Analysis
3 Semester Credit Hours (3 Lecture Hours)
Statistical analysis for data collected in several variables. Topics include sampling from multivariate normal distribution, multivariate analysis of variance, discriminant analysis, principle components, and factor analysis.
Prerequisite: MATH 6315.
CMSS 6305 Natural Systems Modeling
3 Semester Credit Hours (3 Lecture Hours)
Modeling and analysis of deterministic and stochastic dynamical systems, including investigation of model behavior and stability. Theory will be applied to research natural environmental and biological systems such as multi-species systems, carbon circulation in the biosphere, Nutrients-Phytoplankton-Zooplankton models, etc.
Prerequisite: MATH 6315 and 6316.
CMSS 6307 Coastal and Marine Systems
3 Semester Credit Hours (3 Lecture Hours)
Description of coastal and oceanic ecosystems to provide an overview of the fundamental concepts of the abiotic and biotic components, physical-chemical processes, and interactions with environmental and human systems.
CMSS 6308 Coastal Geoenvironments and Change
3 Semester Credit Hours (3 Lecture Hours)
Investigations of the origin, character, and processes of coastal geoenvironments with an emphasis on tracking historical and projecting future changes, including examination of the interactions of geological and biological processes and impacts of human activities on coastal depositional systems.
CMSS 6310 Fundamentals of Remote Sensing
3 Semester Credit Hours (3 Lecture Hours)
Fundamental theory of satellite/airborne remote sensing techniques, sensor performance and calibration, and the scientific applications for land, ocean and atmosphere observations. Topics include physical principles of remote sensing, radiometry, sensors and sensor technology from infrared to microwave sensing, and scientific applications for land, ocean and atmosphere observations. Cross listed with ESCI 6310.
CMSS 6312 Communicating Science Seminar
3 Semester Credit Hours (3 Lecture Hours)
Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.
CMSS 6323 Experimental Design
3 Semester Credit Hours (3 Lecture Hours)
Fundamental concepts of mathematical ecology and the design and analysis of environmental experiments. Students Learn SAS programming and procedures to compute ecological metrics, data management techniques, exploratory analysis, power, sample size, checking assumptions, and analysis of variance models to compute a priori and post hoc hypothesis tests.
Prerequisite: MATH 6315.
CMSS 6327 Physical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Succinct review of basic concepts of physical oceanography followed by general presentations and discussions in three selected areas: global ocean circulation, circulation along the Gulf of Mexico continental shelf, and ocean-atmosphere interaction and impacts on climate. A significant portion of the class is based on student guided reading assignments.
CMSS 6328 Coastal Ocean using RMT SNS
3 Semester Credit Hours (3 Lecture Hours)
CMSS 6333 Paleo Systems
3 Semester Credit Hours (3 Lecture Hours)
Study of the interrelationships of ancient organisms and their environment through interpretation of the fossil record, analog communities, and oceanographic data, such as carbon and oxygen isotopes. Theories and methods of reconstructing terrestrial, marine and freshwater biotic communities and environments. Review of classic paleoecological and paleoceanographic studies as well as current research.
Prerequisite: BIOL 3428 and GEOL 1401 and (ESCI 3351 or GEOL 4316).
CMSS 6334 Geological Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Integrated examination of the geology and geochemistry of the marine environment. Evolution of ocean basins, continental margins and plate boundaries; geology of oceanic crust; controls on the types, origin, and distribution of marine sediments; and introduction to paleoceanography.
Prerequisite: ESCI 3351 or GEOL 4316.
CMSS 6340 Ocean Resources
3 Semester Credit Hours (3 Lecture Hours)
CMSS 6352 Environmental Forecasting
3 Semester Credit Hours (3 Lecture Hours)
Statistical techniques (classic and Bayesian) and new artificial intelligence based techniques, such as neural networks, for the analysis of environmental systems with large datasets.
Prerequisite: CMSS 6305.
CMSS 6357 Global Geochemical Cycles and Change
3 Semester Credit Hours (3 Lecture Hours)
Integrated examination of global-scale geochemical cycles operating within and between the four components of the Earth system (atmosphere, hydrosphere, biosphere, and solid Earth) and their role in the evolution of our planet.
Prerequisite: CHEM 1411, 1412 and 3411.
Directed Independent Study may be counted towards the Ph.D. degree. Study in areas of current interest. A total of six semester hours of CMSS 6596 with full credit in another area of environmental systems.

An advanced study of an environmental systems topic. May be repeated CMSS 6590 environment and sustainability issues.

This course will introduce the fundamental concepts of neoclassical microeconomics and ecological economics and apply them to environmental and sustainability issues.

This course is to enhance the programming skills of graduate students under various scientific programming environments. The focus is on the data analysis and problem-solving using Python, R, MATLAB and IDL. The contents of the course include the basic concepts of the operating systems and high-level programming languages, basics of programming in Python, general data analysis methods and tools, common scientific data formats, publication quality scientific graphics, the critical steps of building a large programming project.

This course will introduce students to the effects of climatic and anthropogenic change on aquatic ecosystem structure and function. Includes readings from the current literature and development of a research proposal. Cross-listed with MARB 6362.

Intensive study of the 1972 National Coastal Zone Management Act and subsequent coastal management programs. The Texas program, which is administered by the General Land Office, will be dealt with in depth as the central focus of the course. Statutory law relating to citizen, state, and federal rights and duties as they impact coastal and maritime law will be studied including applicable Texas real property law. Students will use case law studies relating to those rights and duties and Public Trust Doctrine cases to gain an integral part of understanding the responsibilities of governments and rights of citizens.

This course will introduce the fundamental concepts of neoclassical microeconomics and ecological economics and apply them to environmental and sustainability issues.

An advanced study of an environmental systems topic. May be repeated with full credit in another area of environmental systems.

Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the Ph.D. degree.

CMSS 6940 Dissertation Project Research
1-9 Semester Credit Hours (1-9 Lecture Hours)
Dissertation Project RESEARCH Research related to Ph.D. dissertation project. Open only to degree candidates in Coastal and Marine Systems Science with consent of the graduate advisor. Course is taken as credit/non-credit and may be repeated.

CMSS 6996 Research
1-9 Semester Credit Hours (1-9 Lecture Hours)
Independent research conducted under supervision of an advisor. Open to Coastal and Marine System Science students who have not yet passed the qualifying exam and with consent of their graduate advisor. The course is graded with an S or U, and may be repeated.

CMSS 6998 Dissertation Research
1-9 Semester Credit Hours (1-9 Lecture Hours)
Research related to Ph.D. dissertation project. Open only to degree candidates having passed the qualifying exam in Coastal and Marine System Science with consent of their graduate advisor. The course is graded with an S or U, and may be repeated.

CMSS 6999 Dissertation Defense
3-9 Semester Credit Hours
Open only to degree candidates in Coastal and Marine System Science with consent of their graduate advisor. Students should enroll in this course during the last semester of the CMSS PhD program. To successfully complete this course the student must pass the dissertation defense as well as have a final copy of the dissertation signed by the full graduate committee and approved for binding and distribution. A course section will be created for the student to enroll. A grade of Credit/No Credit will be assigned for the class with the possibility to assign the grade of IP or In Progress. If a grade of IP is assigned, the course must be repeated the following semester(s) until the course is passed.

Communication (COMM)

COMM 5301 Introduction to Communication Scholarship
3 Semester Credit Hours (3 Lecture Hours)
This is a practical introduction to scholarship in the Communication discipline with emphasis in: reading and understanding academic source material; finding source material in scholarly literatures; writing academic research papers; editing and revising your own work; and presenting scholarship. Completing this course will prepare you to think, write, and present ideas as an advanced scholar in the Communication discipline.

COMM 5302 Seminar in Communication Theory
3 Semester Credit Hours (3 Lecture Hours)
This course represents an advanced treatment of theory in the Communication discipline. Theoretical traditions and theories discussed in this course are used by scholars to explain and/or interpret communication processes in such areas as interpersonal, intercultural, organizational, and media settings

COMM 5303 Research Methodology
3 Semester Credit Hours (3 Lecture Hours)
This course is designed as an intellectual and practical introduction to communication research at the graduate level, including epistemological, intellectual, and practical issues associated with qualitative, quantitative, and critical methods research.

COMM 5304 Cultural Studies
3 Semester Credit Hours (3 Lecture Hours)
This course examines theoretical approaches to cultural studies; focus on interdisciplinary research of media audiences and covering a range of methods and theoretical frameworks; concentration varies.
COMM 5305 Basic Communication in Higher Education  
3 Semester Credit Hours (3 Lecture Hours)  
BASIC COMMUNICATION IN HIGHER ED This course provides individual development in philosophies and practices unique to teaching basic oral communication. It is designed primarily for students who wish to teach public speaking in higher education. This course is required for all students serving as Graduate Teaching Assistants in COMM 1315.

COMM 5306 Instructing and Consulting  
3 Semester Credit Hours (3 Lecture Hours)  
This course will draw upon academic research in instructional communication to provide a foundation for aligning the instructional skills and knowledge necessary for achieving organizational strategic goals and objectives.

COMM 5307 Communication and Organizations  
3 Semester Credit Hours (3 Lecture Hours)  
This course surveys traditional and contemporary readings in organizational communication. Readings cover such topics as the relationship of communication and organizational structure, process, stakeholders, leadership, decision making, culture, and identity.

COMM 5308 Communicating Leadership  
3 Semester Credit Hours (3 Lecture Hours)  
This course focuses on the process of influence that takes place through communication to achieve goals or to produce change from a collective of people. This course will include instruction on the various approaches to leadership, process of leadership, and the role that leadership plays in a variety of contexts.

COMM 5309 Seminar in Interpersonal Communication  
3 Semester Credit Hours (3 Lecture Hours)  
This seminar focuses on terminology, key theories, and functions of interpersonal communication as it pertains to the formation and maintenance of relationships.

COMM 5310 Seminar in Intercultural Communication  
3 Semester Credit Hours (3 Lecture Hours)  
This course explores the relationship between communication and culture through scholarly readings, discussions, and critiques in three subfields of Intercultural Communication: cultural communication, cross-cultural communication, and intercultural communication.

COMM 5311 Seminar in Persuasion Theory  
3 Semester Credit Hours  
This course investigates traditional and contemporary theories of persuasion and is an in-depth study of the major concepts of persuasive communication.

COMM 5312 Seminar in Gender Communication  
3 Semester Credit Hours (3 Lecture Hours)  
This seminar focuses on terminology, key theories, and cutting-edge research within the study of gender communication.

COMM 5314 Small Group Decision Making  
3 Semester Credit Hours (3 Lecture Hours)  
This course will focus on the theory and practice of small group decision making, by considering both effective work groups and small groups that have made faulty decisions.

COMM 5315 Family Communication  
3 Semester Credit Hours (3 Lecture Hours)  
Overview of theory and research on communication in the family. Content focuses on definitions, frameworks, perspectives, theories, and outcomes tied to the study of communication processes within the family.

COMM 5330 International Leadership  
3 Semester Credit Hours (3 Lecture Hours)  
Introduces graduate and advanced students to the study of leadership in international and intercultural settings with the emphasis on the context of mediated communication.

COMM 5331 Seminar in Nonverbal Communication  
3 Semester Credit Hours (3 Lecture Hours)  
This seminar will educate students about the history, key theories, types and functions of nonverbal communication, or message with words.

COMM 5335 Advanced Crisis Communication  
3 Semester Credit Hours (3 Lecture Hours)  
Examines crisis communication from the perspective of academic researchers and practitioners. Includes the analysis of crisis communication research, reviews the elements of an effective crisis communication plan, and centers on case study analysis of best and worst practices in crisis planning, prevention, and response.

COMM 5340 Public Relations Theory  
3 Semester Credit Hours (3 Lecture Hours)  
A discussion of theories of excellence in public relations and crisis communication through the exploration of models, roles, communication, media, ethics, and culture to serve as a foundation for professional practice.

COMM 5341 Digital Filmmaking  
3 Semester Credit Hours (3 Lecture Hours)  
DIGITAL FILMMAKING This course concentrates on the professional skills needed by a well-rounded independent filmmaker: writing, visualizing the script, producing, directing the actors, digital cinematography, sound, editing and postproduction.

COMM 5343 Seminar in Television Studies  
3 Semester Credit Hours (3 Lecture Hours)  
SEMINAR IN TELEVISION STUDIES This course is a critical study of television programming content, production practices, and audiences. Includes consideration of industrial, political, aesthetic, and cultural analyses of television.

COMM 5344 Seminar in Film Studies  
3 Semester Credit Hours (3 Lecture Hours)  
SEMINAR IN FILM STUDIES Investigation of selected topics in film through viewing, reading, and independent research. May be repeated when topics vary.

COMM 5346 Seminar in New Media  
3 Semester Credit Hours (3 Lecture Hours)  
Explores contemporary instances of new and emerging media platforms, especially as facilitated through digital media technologies, as they continue to disseminate more widely as portals of communication. Students will engage with specific issues in new media through the lenses of various cultural theories in order to gain a greater understanding of the scope of new media, its culture, and the relationships that exist between machines and humans, as well as those between society and technology.

COMM 5390 Special Topics in Communication  
3 Semester Credit Hours (3 Lecture Hours)  
This course is an intensive exploration of selected topics in communication study. May be repeated when topics vary.
COMM 5395 Thesis
3,6 Semester Credit Hours (3,6 Lecture Hours)
The thesis is independent research under the direction of a student’s graduate committee, and to result in a completed thesis project, it should be taken in two separate semesters for a total of 6 credit hours dependent upon thesis proposal.

COMM 5396 Individual Study
1-3 Semester Credit Hours
This Individual Study course is designed to provide inquiry and research opportunities in an area of special interest otherwise not available in course offerings. Two individual study courses may be applied toward the degree with the approval of the student’s Faculty Mentor.

COMM 5399 Internship
3 Semester Credit Hours (2.5 Lecture Hours)
Practical experience in the communication field through placement in an communication or media internship position. Students must have completed at least 6 hours of graduate coursework in communication and have a minimum GPA of 3.5 to apply for the internship course.

Computer Science (COSC)

COSC 5300 Introductory Topics in Computer Science
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the leveling topics in computer science. This course serves the needs of certain topics students lack for pursuing a Master’s degree in computer science. Grade assigned will be "credit" (CR) or "no credit" (NC).

COSC 5312 Foundations of Computer Organization and Architecture
3 Semester Credit Hours (3 Lecture Hours)
A survey of computer organization and architecture with emphasis on reducing processor overhead and increasing processor efficiency. Hardware and software interfaces, memory hierarchy, caches and connections, pipelining and performance, and operating systems. (Does not count toward total hours required for MS in Computer Science.)

COSC 5313 The Design and Analysis of Computerized Instructional Systems
3 Semester Credit Hours (3 Lecture Hours)
Provides an introduction to the development of computer-based learning environments. Covers the theory and practice of using the computer both in the classroom and individually for learning. Covers a wide range of possibilities from multimedia presentation of material to constructivist environments and computer-based instructional systems.

COSC 5321 Data Structures
3 Semester Credit Hours (3 Lecture Hours)
A study of the logical structures used for the organization, storage and retrieval of data. These structures are addressed from both memory-resident and file-resident points of view. Algorithms for the creation, searching, and manipulation of standard data structures used in computing are stressed. (Does not count toward total hours required for MS in Computer Science.)

Co-requisite: COSC 5312, MATH 2305.

COSC 5324 Digital Image Processing
3 Semester Credit Hours (3 Lecture Hours)

COSC 5326 Computer Vision
3 Semester Credit Hours (3 Lecture Hours)

Prerequisite: COSC 5324.

COSC 5327 Intro to Computer Graphics
3 Semester Credit Hours (3 Lecture Hours)
INTRODUCTION TO COMPUTER GRAPHICS This graduate course provides students with a foundation in basic principles and techniques for computer graphics on modern graphics hardware. Students will gain experience in interactive computer graphics using the OpenGL API. Topics include: graphics hardware, rendering, perspective, lighting, and geometry.

COSC 5328 Advanced Computer Graphics
3 Semester Credit Hours (3 Lecture Hours)
This course covers advanced computer graphics techniques. Students will be introduced to state-of-the-art methods in computer graphics. This course will focus on techniques for real-time rendering and animation.

Prerequisite: COSC 4328 or 5327.

COSC 5331 Foundations of Computer System Software
3 Semester Credit Hours (3 Lecture Hours)
Introduction to operating systems concepts, principles, and design. Topics include: processes and threads, CPU scheduling, mutual exclusion and synchronization, deadlock, memory management, file systems, security and protection, networking, and distributed systems. Selected existing operating systems are discussed, compared, and contrasted. (Does not count toward total hours required for MS in computer science.)

Prerequisite: COSC 5313.

Co-requisite: COSC 5321.

COSC 5332 Advanced Topics in DBMS
3 Semester Credit Hours (3 Lecture Hours)
Advanced topics in database management systems. Performance (indexing, query optimization, update optimization), concurrency, security and recovery issues are discussed. Also includes the study of front-end environments that access the database.

Prerequisite: COSC 5335 and 5321.

COSC 5337 Data Mining
3 Semester Credit Hours (3 Lecture Hours)

COSC 5340 Human-Computer Interaction
3 Semester Credit Hours (3 Lecture Hours)
Graduate-level survey of the field of Human-Computer Interaction (HCI) focusing on design strategies for making software usable by real-world people for doing real-world work. Topics include the role of HCI in the software product life cycle, task analysis of the user’s work, architectures for human-computer dialogues, new and traditional approaches to user interface design, and user interface standards.

Prerequisite: COSC 5331.

COSC 5350 Advanced Topics in DBMS
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.

Prerequisite: COSC 5336.
WIRELESS SENSOR NETWORKS

Introduction to wireless sensor networks, and associated challenges and measures. The course will cover the design principles of wireless sensor networks, addressing, localization, routing protocols, applications of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.

Prerequisite: COSC 5331.

COSC 5352 ADVANCED OPERATING SYSTEMS

Introduction to advanced concepts in operating systems and distributed systems. Topics include distributed system architectures, interprocess communication, distributed mutual exclusion, distributed synchronization and deadlock, agreement protocols, distributed scheduling and process management, distributed shared memory, distributed file systems, multiprocessor system architectures and operating systems, recovery and fault tolerance.

Prerequisite: COSC 5331.

COSC 5353 PRINCIPLES OF COMPILER CONSTRUCTION

This course introduces the basic concepts and mechanisms traditionally employed in language translators, with emphasis on compilers. Topics include strategies for syntactic and semantic analysis, techniques of code optimization and approaches toward code generation.

Prerequisite: COSC 5330 and MATH 2305.

COSC 5354 ARTIFICIAL INTELLIGENCE

Fundamental concepts and techniques for the design of computer-based intelligent systems. Topics include: a brief history, methods for knowledge representation, heuristic search techniques, programming in LISP or Prolog.

Prerequisite: COSC 5321 and MATH 2305.

COSC 5355 DATA COMMUNICATIONS NETWORKING

Areas studied include principles of computer-based communication systems, analysis and design of computer networks, and distributed data processing.

Prerequisite: COSC 5331.

COSC 5356 THEORY OF COMPUTATION

An introduction to theoretical foundations of modern computing. Topics include finite state machine concepts, formal grammars, and basic computability concepts.

Prerequisite: COSC 5321 and MATH 2305.

COSC 5357 WIRELESS SENSOR NETWORKS

This is a graduate level course on wireless sensor networks; one of the fastest developing areas in computer science and engineering. The focus of this course is on the design of optimized architectures and protocols for such unique networks. Topics include the design principles of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.

Prerequisite: COSC 5375.

COSC 5359 DATABASE SYSTEMS

This course is designed to address the technical and conceptual challenges of building scalable, reliable, and efficient information systems. Topics include data modeling, database design, query languages, transaction processing, and database management system design.

Prerequisite: COSC 5331.

COSC 5360 CONCURRENCY: PARALLEL AND DISTRIBUTED PROCESSING

Introduction to the hardware and software issues in parallel computing. Topics include motivation and history, parallel architectures, parallel algorithm design, and parallel performance analysis. Students will be introduced to a variety of parallel computing paradigms including message passing systems and shared memory systems.

Prerequisite: COSC 5331.

COSC 5362 MOBILE SOFTWARE DEVELOPMENT

Survey of software development on mobile platforms including both native and cross-platform applications with topics such as: tools and technologies, programming, testing, and deploying. Coverage of software life cycle on mobile platforms and how mobile hardware differs from traditional computers. COSC 5321

COSC 5370 ADVANCED SOFTWARE ENGINEERING

Areas studied include engineering principles and their application to the design, development, testing, and maintenance of large software systems, tools and processes for managing the complexities inherent in creating and maintaining large software systems.

Prerequisite: COSC 5321.

COSC 5374 COMPUTER FORENSICS

This course will introduce students to the fundamentals of computer forensics and various software tools used in cyber-crime analysis. Students will be introduced to established methodologies for conducting computer forensic investigations, as well as to emerging international standards for computer forensics. Applicable laws and regulations dealing with computer forensic analysis will also be discussed.

Prerequisite: COSC 5312.

COSC 5375 INFORMATION ASSURANCE

An introduction to information security and assurance. This course covers the basic notions of confidentiality, integrity, availability, authentication models, protection models, secure programming, audit, intrusion detection and response, operational security issues, physical security issues, personnel security, policy formulation and enforcement, access controls, information flow, legal and social issues, classification, trust modeling, and risk assessment.

Prerequisite: COSC 5312.

COSC 5376 NETWORK SECURITY

This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network.

Prerequisite: COSC 5375.
COSC 5377  APPLIED CRYPTOGRAPHY  
3 Semester Credit Hours (3 Lecture Hours)  
This course includes an introduction to cryptographic algorithms and protocols for encrypting information securely, techniques for analyzing vulnerabilities of protocols, approaches to digital signatures and information digests, and implementation approaches for the most significant cryptographic methodologies.  
Prerequisite: COSC 5312.

COSC 5379  ADVANCED INFORMATION ASSURANCE  
3 Semester Credit Hours (3 Lecture Hours)  
This course encompasses a broad range of topics involving information security, communications security, network security, risk analysis, operational security, health information privacy, criminal justice digital forensics, homeland security, the human element and social engineering, and applicable national and international laws. An in-depth information assurance capstone project or research paper will be required of each student to satisfy the information assurance graduate option requirements.  
Prerequisite: COSC 5375.

COSC 5390  Internship  
3 Semester Credit Hours  
Individual contract agreement involving student, faculty, and cooperating agency (discipline-related business, nonprofit organization, or government agency) to gain practical experience appropriate to computer science in off-campus setting. Grade assigned will be “credit” (CR) or “no credit” (NC).

COSC 5393  RESEARCH METHODS IN COMP SCIEN  
3 Semester Credit Hours (3 Lecture Hours)  
RESEARCH METHODS IN COMPUTER SCIENCE This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical-reading/writing assignments and class discussions on state-of-the-art research in Computer Science will provide students with major research aspects. Fall, Spring

COSC 5395  GRADUATE PROJECT AND TECHNICAL REPORT  
3 Semester Credit Hours  
An applied research project in computing from problem definition to implementation in an area of particular interest to the student that relates to the course of study.  
Prerequisite: COSC 5393 and 5370.

COSC 5396  DIRECTED INDEPENDENT STUDY  
1-3 Semester Credit Hours  
Study in areas of current interest. (A maximum of six hours may be counted toward the MS degree.) Fall, Spring, Summer.

COSC 5398  Thesis I  
3 Semester Credit Hours (3 Lecture Hours)  
This course is for Computer Science MS students choosing the thesis option. Upon choosing a thesis advisor, students will register for this course. This course is only credited/credit. Students will be given a grade of In-Progress until successfully completing their thesis.  
Prerequisite: COSC 6393.

COSC 5399  Thesis II  
3 Semester Credit Hours (3 Lecture Hours)  
This course is for Computer Science MS students choosing the thesis option. Students will continually register for this course until successful completion of their thesis. A grade of In-Progress will be assigned until either successful completion or failing to register. If failing to register students will receive a grade of No Credit for all 5399 and 5398 courses.  
Prerequisite: COSC 5398.

COSC 5590  SELECTED TOPICS  
1-5 Semester Credit Hours (1-5 Lecture Hours)  
Variable content study of specific areas of computer and information systems. May be repeated for credit when topics vary. Offered on sufficient demand.

COSC 5999  Advanced Research in Computer Science  
1-9 Semester Credit Hours (1-9 Lecture Hours)  
Advanced work in a specialized area of computer science. Does not count as credit toward a degree in computer science. Course is taken as credit/non-credit.

COSC 6324  Digital Image Processing  
3 Semester Credit Hours  
This course introduces concepts and techniques for image processing. The objective of this course is to introduce the fundamental techniques and algorithms used for processing and extracting useful information from digital images. The students will learn how to apply the image processing methods to solve real-world problems.

COSC 6326  Computer Vision  
3 Semester Credit Hours  
This graduate course introduces concepts and techniques for machine vision. Particular emphasis will be placed on methods used for object recognition, machine learning, content-based image retrieval, image matching, 3D vision, tracking and motion analysis.  
Prerequisite: COSC 6324.

COSC 6327  Introduction to Computer Graphics  
3 Semester Credit Hours  
This graduate course provides students with a foundation in basic principles and techniques for computer graphics on modern graphics hardware. Students will gain experience in interactive computer graphics using the OpenGL API. Topics include: graphics hardware, rendering, perspective, lighting, and geometry.

COSC 6328  Advanced Computer Graphics  
3 Semester Credit Hours  
This course covers advanced computer graphics techniques. Students will be introduced to state-of-the-art methods in computer graphics. This course will focus on techniques for real-time rendering and animation.  
Prerequisite: COSC 4328 or 6327.

COSC 6334  Design and Analysis of Algorithms  
3 Semester Credit Hours (3 Lecture Hours)  
An advanced course that concentrates on the design and analysis of algorithms used to solve a variety of problems. The methods of design covered include such topics as: divide-and-conquer, the greedy method, dynamic programming, search and traversal techniques, and backtracking.  
Prerequisite: COSC 5321, MATH 2413 and 2305.
COSC 6336 Database Management Systems
3 Semester Credit Hours (3 Lecture Hours)
A study of contemporary database management concepts. Performance (indexing, query optimization, update optimization), concurrency, security and recovery issues are discussed. Also includes the study of front-end environments that access the database.
Prerequisite: COSC 5321.

COSC 6337 Data Mining
3 Semester Credit Hours
An introduction to fundamental strategies and methodologies for data mining. Topics include data preprocessing, mining frequent data patterns, classification, clustering, and outlier detection.

COSC 6338 Machine Learning
3 Semester Credit Hours (3 Lecture Hours)
Machine learning is a set of techniques that have been successfully used in the past few decades for data analysis, process automation, function optimization, model building, and many others. These techniques have been explored in a diversity of fields such as robotics, self-driving cars, big data, control of autonomous systems, image analysis, object recognition, data mining, business, and financial forecasting, transportation systems, antenna design, medical care systems, and many others. ML is a subdivision of artificial intelligence that gives machines the ability to learn and adapt with different acquired knowledge and experience. In this course, a student will learn about state of the art on machine learning and get to know how they can carry out these evolving learning algorithms. ML algorithms attempt to mimic how the human brain works. We plan to develop many exercises on how these ML algorithms work in practical applications in both industry and basic science. We plan to cover topics such as artificial network networks, fuzzy logic, hybrid systems, search and optimization, classification, clustering and deep learning. Students will gain experiences on some programming tools and a variety of applications of machine learning.

COSC 6339 Deep Learning
3 Semester Credit Hours (3 Lecture Hours)
This course introduces concepts and techniques for deep learning. The objective of this course is to introduce the fundamental theory and application of deep learning. Particular emphasis will be placed on regularization and optimization of deep learning models, Convolutional network, recurrent neural networks, autoencoders and generative models. In addition, the students will learn how to apply the methods to solve real-world problems in several areas including remote sensing, geospatial, and medical applications and develop the insight necessary to use the tools and techniques to solve any new problem.

COSC 6340 Human-Computer Interaction
3 Semester Credit Hours (3 Lecture Hours)
This graduate course introduces concepts and techniques for Human Computer Interaction. Attention will be paid to using non-traditional inputs such as cameras and microphones. Students will learn tools for using these inputs to create interactions with users.
Prerequisite: COSC 5331.

COSC 6350 Advanced Topics in DBMS
3 Semester Credit Hours (3 Lecture Hours)
The study of emerging database technologies. Topics are chosen from data warehousing, distributed databases, spatial databases and web-based applications.
Prerequisite: COSC 6336.

COSC 6351 Advanced Computer Architecture
3 Semester Credit Hours
An overview of computer architecture, which stresses the underlying design principles and the impact of these principles on computer performance. General topics include design methodology, processor design, control design, memory organization, system organization, and parallel processing.
Prerequisite: COSC 5331.

COSC 6352 Advanced Operating Systems
3 Semester Credit Hours (3 Lecture Hours)
Introduction to advanced concepts in operating systems and distributed systems. Topics include distributed system architectures, interprocess communication, distributed mutual exclusion, distributed synchronization and deadlock, agreement protocols, distributed scheduling and process management, distributed shared memory, distributed file systems, multiprocessor system architectures and operating systems, recovery and fault tolerance.
Prerequisite: COSC 5331.

COSC 6353 Compiler Design and Construction
3 Semester Credit Hours
This course introduces the basic concepts and mechanisms traditionally employed in language translators, with emphasis on compilers. Topics include strategies for syntactic and semantic analysis, techniques of code optimization and approaches toward code generation.
Prerequisite: MATH 2305.

COSC 6354 Artificial Intelligence
3 Semester Credit Hours
Fundamental concepts and techniques for the design of computer-based, intelligent systems. Topics include: a brief history, methods for knowledge representation, heuristic search techniques, programming in LISP or Prolog.
Prerequisite: COSC 5321 and MATH 2305.

COSC 6355 Data Communications and Networking
3 Semester Credit Hours (3 Lecture Hours)
Areas studied include principles of computer-based communication systems, analysis and design of computer networks, and distributed data processing.
Prerequisite: COSC 5331.

COSC 6356 Theory of Computation
3 Semester Credit Hours
An introduction to theoretical foundations of modern computing. Topics include finite state machine concepts, formal grammars, and basic computability concepts.
Prerequisite: COSC 5321 and MATH 2305.

COSC 6357 Wireless Sensor Networks
3 Semester Credit Hours
This is a graduate level course on wireless sensor networks; one of the fastest developing areas in computer science and engineering. The focus of this course is on the design of optimized architectures and protocols for such unique networks. Topics include the design principles of wireless sensor networks, energy management, MAC protocols, naming and addressing, localization, routing protocols, applications of wireless sensor networks, and associated challenges and measures.
COSC 6360  Parallel Computing
3 Semester Credit Hours
Introduction to the hardware and software issues in parallel computing. Topics include motivation and history, parallel architectures, parallel algorithm design, and parallel performance analysis. Students will be introduced to a variety of parallel computing paradigms including message passing systems and shared memory systems.
Prerequisite: COSC 5331.

COSC 6361  Parallel Algorithms
3 Semester Credit Hours (3 Lecture Hours)
Introduces and evaluates important models of parallel and distributed computation. Topics include a selection of parallel algorithms for various models of parallel computation, combinational circuits, parallel prefix computation, divide and conquer, pointer based data structures, linear arrays, meshes and related models, and hypercubes.

COSC 6362  Mobile Software Development
3 Semester Credit Hours
Survey of software development on mobile platforms including both native and cross-platform applications with topics such as: prototyping, programming, testing, debugging, and deploying. Coverage of software life cycle on mobile platforms and how mobile hardware differs from traditional computers.
Prerequisite: COSC 5321.

COSC 6365  Current Trends in Programming
3 Semester Credit Hours (3 Lecture Hours)
This is a survey of current trends in computer programming. The focus of this course is on the development of computer programs utilizing the latest technologies and paradigms. Topics include state-of-the-art in problem solving and software development, programming techniques and approaches, programming languages, development tools and environments, and software deployment methods.
Prerequisite: COSC 5321.

COSC 6370  Advanced Software Engineering
3 Semester Credit Hours
Areas studied include engineering principles and their application to the design, development, testing, and maintenance of large software systems, tools and processes for managing the complexities inherent in creating and maintaining large software systems.
Prerequisite: COSC 5321.

COSC 6374  Computer Forensics
3 Semester Credit Hours
This course will introduce students to the fundamentals of computer forensics and various software tools used in cyber-crime analysis. Students will be introduced to established methodologies for conducting computer forensic investigations, as well as to emerging international standards for computer forensics. Applicable laws and regulations dealing with computer forensic analysis will also be discussed.

COSC 6375  Information Assurance
3 Semester Credit Hours (3 Lecture Hours)
An introduction to information security and assurance. This course covers the basic notions of confidentiality, integrity, availability, authentication models, protection models, secure programming, audit, intrusion detection and response, operational security issues, physical security issues, personnel security, policy formation and enforcement, access controls, information flow, legal and social issues, classification, trust modeling, and risk assessment.

COSC 6376  Network Security
3 Semester Credit Hours
This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network.
Prerequisite: COSC 6375.

COSC 6377  Applied Cryptography
3 Semester Credit Hours
This course includes an introduction to cryptographic algorithms and protocols for encrypting information securely, techniques for analyzing vulnerabilities of protocols, approaches to digital signatures and information digests, and implementation approaches for the most significant cryptographic methodologies.

COSC 6379  Advanced Information Assurance
3 Semester Credit Hours
This course encompasses a broad range of topics involving information security, communications security, network security, risk analysis, operational security, health information privacy, criminal justice digital forensics, homeland security, the human element and social engineering, and applicable national and international laws. An in-depth information assurance capstone project or research paper will be required of each student to satisfy the information assurance graduate option requirements.
Prerequisite: COSC 6375.

COSC 6380  Data Analytics
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce state-of-the-art techniques to process and analyze different types of data, generate insights and knowledge from data, and make data-based decisions and predictions. Real-world examples will be used to familiarize students with the theory and applications. Main topics include data preprocessing, probability theory, tests of hypothesis, and various data analysis techniques (e.g., clustering, classification, prediction/forecasting, etc.) for different types of data including static, time-series, spatial, and spatiotemporal.

COSC 6393  Research Methods in Computer Science
3 Semester Credit Hours
This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical-reading/writing assignments and class discussions on state-of-the-art research in Computer Science will provide students with major research aspects. Spring

COSC 6396  Directed Independent Study
3 Semester Credit Hours
Study in areas of current interest. (A maximum of six hours may be counted toward the MS degree.) Fall, Spring, Summer.

COSC 6590  Selected Topics
3 Semester Credit Hours (3 Lecture Hours)
Variable content study of specific areas of computer and information systems. May be repeated for credit when topics vary. Offered on sufficient demand.
Counseling/Educational Psychol (CNEP)

CNEP 5304 Introduction to Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is an orientation to the profession of counseling, its history, professional standards, code of ethics, credentials, areas of specialization, and the development of skills necessary to create a helping relationship. It covers the counselor's professional identity in a variety of settings and roles. Opportunities are provided for students to discover through self-awareness their suitability for the helping profession.

CNEP 5306 Career Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course covers classic and contemporary theories of career development, counseling, and decision making, including; the use of career/occupational resources, testing, computer-assisted guidance systems, career development planning, assessing factors contributing to career development, advocating for diverse clients, using assessment tools, facilitating client skill development, and using ethical and culturally relevant strategies for addressing career development including the clients' life experiences. Career services in various settings will be discussed. Multicultural issues and needs of special populations will be presented. There are no prerequisites for this course.

CNEP 5308 Counseling Theories
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the theoretical foundations associated with best-practices for counseling treatment planning and intervention. Topics addressed in this course include the historical development and contemporary application of counseling theories, review of key concepts that influence client change, essential features of the therapeutic process, and considerations for culturally-relevant and setting-specific applications. Students will be expected to complete designated readings, work in small groups, complete experiential activities, and demonstrate learning across several modes of evaluation. There are no prerequisites for this course.

CNEP 5309 Grief and Loss Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of issues on death, dying, loss, and the impact of grief. Topics addressed in this course include various types of loss, including non-death related, conceptualizations of grief and mourning across the lifespan, evidence-based interventions to support the dying and bereaved individuals, and strategies for identifying and intervening with those who have clinically significant complicated grief. Students will be expected to explore their own grief reactions as well as examine the societal, cultural, and familial expectations surrounding grief and death rituals. There are no prerequisites for this course.

CNEP 5312 Addictions Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with the knowledge and skills necessary to address a wide range of issues in the context of addiction counseling, treatment, and prevention programs, as well as in a broader mental health counseling context. Topics addressed in this course include: the history and development of addiction counseling; principles and philosophies of addiction-related self-help; neurological, behavioral, psychological, physical, and social effects of psychoactive substances and addictive disorders on the user and significant others; cultural factors related to addiction and addictive behavior. Students will examine specific treatment strategies applicable to the biopsychosocial issues related to addictions, as well as current ethical and professional issues in the field. Students will be expected to articulate strategies for helping clients identify the effects of addiction on life problems and effectively partner with clients to reduce the persisting negative effects of substance use, abuse, dependence, and addictive disorders. There are no prerequisites for this course.

CNEP 5313 Theories and Techniques in Substance Abuse Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of addictions treatment and the counseling dynamics involved, as well as the significance and impact of addictions within our society. Topics addressed in this course include: theories and models of addiction related to substance use as well as behavioral and process addictions; techniques and interventions related to treating substance abuse and other addictions; principles, models, and documentation formats of biopsychosocial case conceptualization and treatment planning; and regulatory processes and substance abuse policy relative to service delivery opportunities in addiction counseling. Students will be expected to describe various methods of screening, assessment, and testing for addiction; articulate pertinent legal and ethical considerations specific to addiction counseling; and evaluate and identify individualized strategies and treatment modalities relative to clients' stage of dependence, change, or recovery.

CNEP 5314 Theory and Practice of Multicultural Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the cultural differences of special populations of people. Emphasis on ethical use of appropriate counseling techniques for use with the major racial/ethnic groups and other special populations of people such as those who are physically or emotionally disabled, older, of different genders or of different sexual orientation. Topics addressed in this course include: theories and models of multicultural counseling; multicultural counseling competencies; cultural identity development; worldview, power, privilege, and oppression, social justice, and advocacy. Students will be expected to articulate effective strategies for working with and advocating for diverse populations; recognize the impact of heritage, attitudes, beliefs, and acculturative experiences on individuals' view of self and others; and identify and eliminate barriers, prejudices, and processes of intentional and unintentional oppression and discrimination at the individual and institutional level. There are no prerequisites for this course.
CNEP 5315 Consultation and Responsive Services in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide both indirect services to children and adolescents via effective consultation and direct responsive services in the school setting. Topics addressed in this course include consultation models, crisis counseling models, crisis intervention, and school counselor roles in consultation and crisis response. Students will be expected to develop interventions in which consultation is the primary method of delivery, appropriately respond to crisis situations encountered in a school environment, create responsive services programming based on applicable data, and demonstrate skills needed for effective consultation and responsive services, and articulate the connection between consultation and responsive services. There are no prerequisites for this course.

CNEP 5316 Developmental School Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with an understanding of the planning, design, implementation, and evaluation of comprehensive, developmental school counseling programs. The course includes student collaboration with existing school counseling programs to facilitate student professionalism and competence in consultation, strategy selection and implementation, program delivery, and community referral. This course is a requirement for eligibility to take the TExES school counselor examination.

CNEP 5317 Play Therapy: a Counseling intervention
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for the purpose of studying the theory, techniques, and issues related to counseling children using play therapy. The class will consist of lecture, group discussion, video presentations, experiential activities and case studies. Designed for both school and community counselors.

CNEP 5318 Consultation in School Settings
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to train school counseling students to provide indirect services to children and adolescents through effective consultation with parents, teachers, administrators and external referral sources. The emphasis of the course is on the acquisition of skills that follow a logical consultation model. The course has a didactic and experiential learning component. Students will become sensitized to socio-cultural diversity issues as they impact consultation, and to the ethical and legal issues pertaining to working in the schools. Current research will be used to guide the consultation process.
Prerequisite: CNEP 5304 and 4308.

CNEP 5319 Introduction to Clinical Mental Health Counseling
3 Semester Credit Hours (3 Lecture Hours)
Research, identification, and design of systemic models of prevention and intervention that foster the healthy development of individuals in school and community settings. Focus will be both on assessment and implementation of culturally respectful approaches that invite collaboration with the family, school, community, and other contextual resources of children, adolescents, and adults.

CNEP 5320 Introduction to Marriage, Couple, and Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an introduction to marriage, couple, and family counseling. Topics addressed in this course include history and development of marriage, couple, and family counseling; theories and models of family systems and dynamics; theories and models of marriage, couple, and family counseling; and sociology of the family, family phenomenology, and family of origin theories. In addition, roles and settings of marriage, couple, and family counselors as well as professional credentialing and preparation of marriage, couple, and family counselors will be addressed. Students will be expected to successfully complete a variety of tasks, including projects, presentations, examinations, and role plays.

CNEP 5321 Advanced Strategies in Process Addictions and Substance Abuse
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to equip students with advanced strategies, techniques, and interventions for treating substance use disorders as well as behavioral and process addictions. Topics addressed in this course include: the diagnostic process and use of current diagnostic classification systems found in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD); assessment of biopsychosocial and spiritual history relevant to addiction; classifications and contraindications of commonly prescribed psychopharmacological medications for appropriate medical referral and consultation; psychological tests and assessments specific to addiction counseling; and the importance of vocation, family, social networks, and community systems in the treatment and recovery process for substance use disorders, behavioral addictions, and process addictions. Students will be expected to effectively assess, diagnose, and treat a variety of addictive disorders and process addictions using contemporary evidence-based practices.
Prerequisite: CNEP 5313.

CNEP 5322 Strategies in Family Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on clinical applications of major theoretical models of family counseling. Topics addressed in this course include principles and models of assessment and case conceptualization from a systems perspective; interventions and techniques of marriage, couple, and family counseling; and conceptualizing and implementing treatment. Students will be expected to demonstrate application of various approaches, including both case conceptualization and interventions, from a variety of theoretical models via case studies, role plays, and other course activities.
Prerequisite: CNEP 5320.

CNEP 5323 Counseling for Holistic Wellness
3 Semester Credit Hours (3 Lecture Hours)
This course provides an introduction and critical review of contemporary theory and research in models of holistic wellness including consideration of experiential and interventions that address lifestyle variables. The course also discusses the role of the professional counselor as interventionist in a variety of applied settings in assisting clientele in moving toward optimal health (not just absence of illness), through an integration of physical, psychological, social, spiritual and personal choice components of physical health and lifestyle management.
CNEP 5324 Counseling Couples
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize students with the assessment and treatment of couple relationships. Major topics include but are not limited to research- and efficacy-based treatment models, legal and ethical standards, couples sexual counseling, premarital counseling and preventive psychoeducational approaches, gender and issues of diversity impacting couple relationships, research relevant to couple counseling, and societal trends.
Prerequisite: CNEP 5320.

CNEP 5326 Family Counseling for Child and Adolescent-Focused Issues
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to focus on evidence-based family treatment of problems that are child- and adolescent-focused. Topics addressed in this course include principles and models of assessment and case conceptualization from a systemic perspective; use of appropriate assessments in family therapy; impact of trauma and addictions on families; evidence-based models and interventions in family counseling for problems that are child- and adolescent-focused; and conceptualization planning of intervention strategies in family counseling. Students will be expected to demonstrate the ability to utilize assessments, conceptualize treatment, and plan specific interventions to address child and adolescent related issues in family counseling.
Prerequisite: CNEP 5320.

CNEP 5327 Ethical and Legal Issues in Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course offers in-depth consideration of ethical and legal issues that affect the practice of counseling in clinical mental health counseling; marital, couple, and family counseling; addictions counseling; and school counseling settings. The course will assist students in understanding and formulating sound positions on a variety of major issues related to the field of counseling. Students are expected to be familiar with a variety of ethical codes as well as laws regulating the profession. Students will be expected to utilize ethical-decision-making models and codes of ethics to analyze cases, analyze content appropriate to their program emphases, apply relevant codes of ethics and laws, and demonstrate understanding of critical legal and ethical content.

CNEP 5328 Abnormal Human Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide an overview of the principles of understanding the dysfunction in human behavior and development, including the impact of disaster, crises, and other trauma-causing events on developmental processes. Students will learn how dysfunctional behavior manifests and factors that increase one’s vulnerability to abnormal human behavior. The primary topics of this course include theories of normal and abnormal personality development and the effects of crises, disasters, and other trauma on diverse individuals across the lifespan. Students will be expected to demonstrate understanding of abnormal personality development as well as the impact of trauma-causing events on personality development via successful completion of tasks in various assignments which may include case studies, presentations, and examinations.

CNEP 5329 Cultural Immersion: Diversity of Spanish Speakers
3 Semester Credit Hours (3 Lecture Hours)
This course addresses cultural issues in Spanish-speakers such as concept of family, authority and social organization, communication method, thought, formality of address and spirituality. This course will be offered both as an online course and a study abroad experience. Students who have an opportunity to travel may take this course when it is offered in a Spanish-speaking country.

CNEP 5330 Professional and Technical Spanish
3 Semester Credit Hours (3 Lecture Hours)
This on-line course is an orientation to counseling clients in Spanish. Students will become familiar with terms to use to facilitate a session in Spanish. Professional counseling concepts include mental health, counseling techniques, communication skills, understanding and problem solving, goal setting, and consultation with other professionals.

CNEP 5331 Strategies and Interventions for Spanish-Speaking Clients
3 Semester Credit Hours (3 Lecture Hours)
This online course provides training in mental health strategies and interventions in counseling. The focus is on theories and techniques appropriate with Spanish-speaking clients.

CNEP 5332 Spanish-Speaking Internship I
3 Semester Credit Hours (3 Lecture Hours)
The Internship I experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision.

CNEP 5333 Spanish-Speaking Internship II
3 Semester Credit Hours (3 Lecture Hours)
The Internship II experience requires a minimum of 100 clock hours of supervised counseling, including 50 hours of direct service with Spanish-speaking clients. Students will provide counseling to community members in the CNEP Counseling and Training Clinic or other designated location under faculty supervision. Students who have an opportunity to travel complete Internship II clinical work in a study abroad program in a Spanish-speaking country.

CNEP 5354 Developmental Issues in Human Personality and Behavior
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to address both historical and contemporary research in personality theory from a lifespan developmental perspective. Topics addressed in this course include normative patterns of personality development and adjustment; Major factors and conditions which are related to successful human adaptations including adult-child relations, personality defense mechanisms, developmental stages and abnormal behavior in addition to theories of personality. Social and Cultural foundations of personality development will also be covered. Students will be expected to demonstrate understanding of personality development across the lifespan as well as social/cultural influences on personality development through successful completion of various assignments which may include case studies, presentations, and examinations. There are no prerequisites for this course.

CNEP 5361 Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with both a theoretical and an experiential approach to group counseling dynamics and processes including therapeutic factors and group effectiveness, characteristics and functions of group leaders, recruiting, screening, and selecting group members, group settings and types of groups, ethical and cultural strategies for designing and facilitating groups, and a minimum of 10 clock hours of participation in a small group activity. There are no prerequisites for this course.
CNEP 5365 Stress Management and Integrated Wellness
3 Semester Credit Hours (3 Lecture Hours)
This is a course designed to teach practical skills for managing stress and integrating wellness practices into the daily lifestyle. Students will be exposed to current knowledge base and experiential best practices for identifying stressors in their environment and developing strategies for their personal and client use.

CNEP 5371 Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide the student with a basic knowledge for testing and measurement in the counseling field. Topics addressed in this course include historical perspectives concerning the nature and meaning of assessment and testing in counseling, methods of effectively preparing for and conducting initial assessment meetings, use of assessments for diagnostic and intervention planning purposes, basic concepts of standardized and non-standardized testing, norm-referenced and criterion-referenced assessments, group and individual assessments, validity and reliability in assessments, the use of assessments relevant to academic/educational, career, personal, and social development, use of environmental assessments and systematic behavioral observations, use of symptom checklists and personality and psychological testing, use of assessment results to diagnose developmental, behavioral, and mental disorders, and ethical and culturally relevant strategies for selecting, administering, and interpreting assessment and test results, and program evaluation and the use of findings to effect program modifications. Covers functions of testing in education; educational and social issues related to testing and use of test results; theoretical aspects of psychometrics; selection of commercial standardized tests; and common commercial standardized tests. Students will be expected to demonstrate knowledge of the foundation and history of psychometric assessment, knowledge of the psychometric properties of assessments, including validity, reliability, and norming groups, knowledge of how to select, administer, interpret, and report the results of psychometric assessments, how to conduct a biopsychosocial assessment, and how to conduct a program evaluation and interpret the results. There are no prerequisites for this course.

CNEP 5374 Individual intelligence Testing
3 Semester Credit Hours (3 Lecture Hours)
Testing, scoring, and interpretation procedures for the Wechsler scales.

CNEP 5375 Clinical Mental Health Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to be a competency-based course with a primary focus on the practice and acquisition of specific techniques and interview skills. Topics addressed in this course include essential interviewing and decision-making skills, evidence-supported counseling strategies, culturally responsive modalities for initiating, maintaining, and terminating counseling, treatment planning, and strategies for promoting wellness and self-care. The student will demonstrate the ability to implement these competencies through discussion, conceptualization assignments, and experiential activities.

Prerequisite: CNEP 5384.

CNEP 5381 Psychodiagnosis and Treatment Strategies
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to cover types of human distress, as described in the Diagnostic and Statistical Manual of Mental Disorders, including the development of tools for the understanding and critical appraisal of abnormal human behavior across the life-span. Strategies and techniques for working with clients in a variety of settings are considered. The primary topic in this course is the diagnostic process, including differential diagnosis and the use of current diagnostic classification systems. Students will be expected to demonstrate understanding of the diagnostic process and treatment planning via successful completion of tasks in multiple case studies, mid-term examination, and final evaluation.

Prerequisite: (CNEP 5304 and 5308).

CNEP 5384 The Counseling Process
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to teach students how to use beginning counseling skills. Topics addressed in this course include counselor characteristics and behaviors that influence the counseling process, essential interviewing, counseling, and case conceptualization skills, and self-care strategies appropriate to the counselor role. Students will be expected to demonstrate the ability to understand and use basic micro-skills in counseling practice, and demonstrate knowledge of counselor characteristics and behaviors that can affect the counseling process. They will also be expected to demonstrate the practice and understanding of self-care via intentional personal wellness activities.

CNEP 5385 Bridge Supervision
1 Semester Credit Hour
Supervised counseling experience during breaks between academic semesters. Counseling setting must be the same as the practicum/internship setting either the previous or following semester. The course, while not required for the degree, is required for all students who obtain hours towards the practicum/internship requirements during between-semester breaks.

CNEP 5390 Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
Contemporary issues in Counseling/Educational Psychology; topics vary with professional identification of participants. May be repeated when topics vary.

CNEP 5397 Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide 100 clock hours of supervised counseling experiences, including 40 hours of direct service with clients. Clinical setting must be approved by the Clinical Coordinator. The semester prior to enrollment the student must complete the practicum application process. Students will be expected to demonstrate satisfactory counseling skills as well as a professional counseling identity as evidenced by a grade of B or above in the course and satisfactory ratings on professional behavior ratings. Students who earn a grade below C will be required to re-take the course.

Prerequisite: CNEP 5381 and (CNEP 5384 and 5327).

CNEP 5399 Specialized internship Experience
3 Semester Credit Hours
A supervised field experience in counseling and counseling-related activities. An internship application must be completed and submitted to the instructor.

CNEP 5696 Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.
CNEP 5698 Internship
3 Semester Credit Hours
This course, to be taken twice (6 hours), is designed to provide 600 clock hours of supervised counseling experiences, including 240 hours of direct service with clients. The clinical setting must be approved and appropriate to the student’s emphasis. Students will be expected to provide direct counseling services appropriate to their program specialties and to fulfill additional roles common to the role of a counselor in their specialty as evidenced by evaluations from supervisors.
Prerequisite: (CNEP 5397, 5312, 5320, 5316 and 5375).

CNEP 6305 Advanced Theories in Individual and Group Counseling
3 Semester Credit Hours (3 Lecture Hours)
Historical, theoretical, legal, ethical, and philosophical foundations in counseling with an emphasis on counseling and cultural issues, change theory, systems, and theory efficacy. Overview of major counseling theories includes identifying one’s personal theory. Projects include evaluation of theories with multicultural populations.

CNEP 6310 Advanced Counseling Strategies
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of various counseling strategies appropriate to the development levels of elementary, middle, and secondary school students, adults, couples, and families. Includes case conceptualization and efficacy of theories and treatment strategies of National and International crises, disaster, and other trauma-causing events, short term and intermediate intervention strategies and advocacy methods with at-risk and multicultural populations.

CNEP 6315 Professional, Legal, and Ethical Issues
3 Semester Credit Hours (3 Lecture Hours)
Examination of professional, legal, ethical, topical, and political issues in the counseling profession. Includes focus on counselor’s identity, relevant cultural concerns, and the counselor educators, role and responsibilities. Course material includes research writing projects and an Individual Development Plan (IDP).

CNEP 6316 Research, Writing and Publishing in a Multicultural Society
3 Semester Credit Hours (3 Lecture Hours)
Study of the professional standards of writing, publishing and presenting proposals in a diverse society. Topics include a review of contemporary research on diverse populations. Special emphasis is placed on student gaining knowledge and skill for conducting and communicating the results of scholarly inquiry through processes of editing, consultation and peer review processes.

CNEP 6320 Advanced Appraisal Techniques and Psychometrics
3 Semester Credit Hours (3 Lecture Hours)
This class focuses on facilitating student skills in development, planning, implementation and evaluation of assessment and testing programs. Topics include critical evaluation of validity and reliability of standardized and non-standardized assessments. Emphasis is placed on design parameters, specific assessment measures, and their use in program evaluation.

CNEP 6335 Consultation Theory and Professional Advocacy
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to identify effective consultation approaches/styles and advocacy action planning. Students will acquire skills in assessing needs of counselors in training, developing programs and techniques for change, and program evaluation.

CNEP 6340 Diversity in Counselor Education
3 Semester Credit Hours (3 Lecture Hours)
(3 SCH). This course provides students with the awareness, knowledge, and skills required of counselors, counselor educators, and counseling supervisors to be effective leaders and advocates in an increasingly pluralistic and diverse society. The course will provide students opportunities to develop multicultural competencies by critically examining how issues related to social justice and diversity impact various therapeutic, instructional, consultative, and supervisory relationships.

CNEP 6350 Advanced Clinical Supervision
3 Semester Credit Hours (3 Lecture Hours)
Study of counselor training and supervision with an exploration of the major theoretical/conceptual models and an overview of current trends and practices. Course includes didactic and applied experiences. Legal, ethical and multicultural issues and challenges in diverse settings are addressed, in addition to the purposes of clinical supervision and the role of the supervisor.
Prerequisite: CNEP 6305 and 6310.

CNEP 6354 Counselor Education Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
3 Semester Credit Hours (3 Lecture Hours)
This course is designed as a doctoral level survey of Research Design and Statistics. The major focus will involve an examination of the theoretical assumptions underlying various research designs and the use of inferential statistics. Special emphasis will be placed on the selection of appropriate design for specific applications in counseling and educational contexts. The course will involve both theoretical exploration and instruction on the use of computer-based statistical tools (SPSS).

CNEP 6356 Advanced Research & Design in Wellness and Stress Management Practices
3 Semester Credit Hours (3 Lecture Hours)
Advanced skill development in designing programs and working with clients experiencing stress related disorders that impact the overall quality of their lives. A special emphasis will be placed implementation of design strategies for development and evaluating programs for improving performance and health.
CNEP 6370 Quantitative Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on expanding each student’s knowledge of research design and statistical analysis beyond CNEP 6360 and EDDL 6392. Specific topics will include general linear model approaches to analysis of variance and regression analysis. Students will utilize SPSS to complete regularly assigned problems in order to demonstrate their competence. In addition, a special emphasis will be placed on the development of advanced quantitative skills needed to evaluate programs and student processes within a counselor educator model.
Prerequisite: CNEP 6360.

CNEP 6372 Quantitative Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
This research methodology course is designed to provide doctoral students with application experience in qualitative, quantitative and mixed-method data analytic procedures. Students will address promises and pitfalls using advanced univariate, multivariate, and non-parametric techniques introduced in CNEP 6360 and CNEP 6370. Students will act as consultants and evaluators on projects developed by student research teams in the department. This course is designed to help students address data analytic applications relevant to professional consulting, clinical and counseling practice as well as contexts involving program evaluation in a wide range of professional settings.
Prerequisite: CNEP 6320, 6360 and 6370.

CNEP 6384 Qualitative Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
This course is experientially based on the philosophy, design, and practice of qualitative research. It is understood that participants have a solid background in methods (as defined by the positivist and post-positivist tradition) and statistics. Students will situate qualitative inquiry/research in their philosophical, theoretical, and historical situations, learn methods of qualitative design, and develop a capacity to collect, analyze, and interpret qualitative empirical materials.

CNEP 6385 Qualitative Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
This course provides learners with advanced knowledge about and practice with specific qualitative designs commonly used in counseling research. It is understood that participants have a solid background in research methods generally (as defined by the positive and post-positivist tradition) as well as introductory understanding of qualitative methods specifically. Learners will deepen their understanding of general qualitative methods (e.g., phenomenology) and will focus attention on one or more theory-driven approaches (e.g., descriptive phenomenology, hermeneutic phenomenology, specific grounded theory approaches), with particular attention to consistency of method approach including data analysis.

CNEP 6390 Professional Seminar.
3 Semester Credit Hours (6 Lecture Hours)
Special topics is an advanced study in an identified area of academic interest. May be repeated for credit when topics vary. Covers the knowledge base of the counseling profession.

CNEP 6395 Doctoral Practicum
3 Semester Credit Hours (3 Lecture Hours)
Provides/demonstrates professional counseling expertise with effective application of multiple counseling theories. Demonstrates case conceptualization and effective interventions across diverse populations and settings. The experience includes a minimum of 100 clock hours. Students will experience both the direct delivery of services, and weekly individual and group supervision. Opportunities for the evaluation of student’ counseling skills will be provided.

CNEP 6396 Doctoral internship
3-6 Semester Credit Hours (3-6 Lecture Hours)
Provides an intensive, supervised professional experience in approved counseling and counselor education settings. Two internship courses are required. Each internship consists of a total of 300 clock hours of experience. Students will plan and participate in a variety of experiences relevant to the work of counselor education, which may include supervision, teaching, research, direct counseling, and leadership, all under supervision.

CNEP 6397 Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the application of research skills and inquiry methods. Students will be exposed to various methodological approaches and the components of scientific inquiry. Attention also will be given to ethical and legal issues in research.

CNEP 6398 Dissertation in Progress
1-6 Semester Credit Hours (1-6 Lecture Hours)
Completion of an approved research project under the supervision of a dissertation advisor. (Nine semester hour minimum.)

CNEP 6696 Directed individual Study
3-6 Semester Credit Hours (6 Lecture Hours)
May be repeated when topics vary.

Criminal Justice (CRIJ)

CRIJ 5302 Foundations of Criminal Justice
3 Semester Credit Hours (3 Lecture Hours)
Examination of the theoretical, philosophical, and historical foundations of the criminal justice system. Includes critical analysis of major criminal justice perspectives and models.

CRIJ 5310 Seminar in the Judicial Process
3 Semester Credit Hours (3 Lecture Hours)
Study of selected topics that provide an understanding of the judicial process as it affects the entire criminal justice system. May be repeated when topics vary.

CRIJ 5320 CORRECTIONAL THEORY AND POLICY
3 Semester Credit Hours (3 Lecture Hours)
Examination of the historical development of the rehabilitative ideal. Analysis of the theoretical and ideological foundations of correctional policy and practice.

CRIJ 5330 Seminar in Juvenile Justice
3 Semester Credit Hours
Historical development of the juvenile justice system. Analysis of procedures and problems at each stage of the process. Includes overview of delinquency causation, scope, and treatment.

CRIJ 5351 Seminar in Criminal Justice Management
3 Semester Credit Hours
Study of the supervision and management of criminal justice organizations. Consideration of planning and program evaluation as integral parts of management.

CRIJ 5380 Issues in Justice Administration
3 Semester Credit Hours (3 Lecture Hours)
Analysis of contemporary issues in the administration of justice. Emphasis on key concerns of major system components. May be repeated when topics vary.
CRIJ 5396  Individual Study  
3 Semester Credit Hours (3 Lecture Hours)  
Individual study, reading or research with faculty direction and evaluation.  
Offered on application to and approval of the program coordinator.

**Early Childhood Education (ECED)**

**ECED 5301  Involving Families and Communities in the Lives of Young Children**  
3 Semester Credit Hours (3 Lecture Hours)  
The course will encompass a study of the contributions of national, state,  
and local agencies, referral services, and family involvement as these  
relate to the lives of young children.

**ECED 5303  GRADUATE STUDIES IN EARLY CHILDHOOD EDUCATION**  
3 Semester Credit Hours (3 Lecture Hours)  
An introduction to research studies in early childhood education and an  
analysis of their implications for the classroom teacher. Students will be  
able to engage in action research in early childhood classrooms.

**ECED 5334  DEVELOPMENTALLY APPROPRIATE EARLY CHILDHOOD CURRICULUM**  
3 Semester Credit Hours (3 Lecture Hours)  
An intensive study of the principles of curriculum, which includes  
philosophy, organization, recognition of diversity, selection and evaluation  
of curriculum materials, and development of an early childhood education  
program.

**ECED 5337  Cultural, Linguistic and Economic Diversity and the Effect on the Lives of Young Children**  
3 Semester Credit Hours (3 Lecture Hours)  
The course will address a study of the factors related to culturally,  
linguistically, and economically diverse young children. Issues related to  
these diverse issues will be explored and effective strategies for working  
with these children and their families will be explored.

**ECED 5340  Appropriate Formal and Informal Assessment of All Young Children**  
3 Semester Credit Hours (3 Lecture Hours)  
Formal and informal assessment strategies and tools used in the  
assessment of young children will be studied. Current recommended  
assessment practices and research in early childhood education will be  
examined.

**ECED 5346  Capstone Research Proposal in Early Childhood Education**  
3 Semester Credit Hours  
The course will facilitate the development of the research based  
capstone experience proposal. The proposal must focus on some aspect of  
early childhood education.  
**Prerequisite:** EDFN 5301.

**ECED 5349  Capstone Research Project in Early Childhood Education**  
3 Semester Credit Hours (3 Lecture Hours)  
Students will implement and complete their capstone proposal. This may  
be a thesis or project, focus on some aspect of early childhood education  
and culminate in a formal written paper.

**ECED 5390  Professional Seminar**  
3 Semester Credit Hours  
Contemporary issues in Early Childhood Education: topics vary with  
professional identification of participants.

**ECED 5397  Practicum in Early Childhood Education**  
3 Semester Credit Hours  
An opportunity to secure practical experience in early childhood  
classrooms and analyze those programs in terms of available research. A  
personalized culminating experience for the early childhood specialist.

**ECED 5696  Directed Individual Study**  
1-6 Semester Credit Hours  
May be repeated when topics vary.

**Economics (ECON)**

**ECON 5311  Foundations in Economics**  
3 Semester Credit Hours (3 Lecture Hours)  
An intensive study for graduate students with limited or no academic  
experience in economics. Provides an introduction to economic  
principles, analysis and procedures used in graduate-level study.

**ECON 5315  Managerial Economics**  
3 Semester Credit Hours (3 Lecture Hours)  
A graduate-level course in managerial micro economics focusing on the  
use of economic tools and concepts to assist managers in decision-making.  
Topics may include market demand and elasticity, demand  
estimation, production and cost functions, marginal analysis under  
various forms of market structure and game theory.  
**Prerequisite:** ECON 5311.

**ECON 5320  Health Economics and Policy**  
3 Semester Credit Hours (3 Lecture Hours)  
An analysis and evaluation of classical and modern economic theory,  
principles and procedures applicable to the health care delivery system  
and their implications for public policy.  
**Prerequisite:** ECON 311.

**ECON 5335  International Economics**  
3 Semester Credit Hours (3 Lecture Hours)  
An analysis of why international trade takes place and how private agents  
react to changes in government policies. Determination of exchange  
rates, exports, imports, capital flows, employment, prices, interest rates,  
and economic growth are the focus of simple analytical techniques.  
Monetary and fiscal policies are also examined in an international  
macroeconomics context.  
**Prerequisite:** ECON 5311.

**ECON 5370  Seminar**  
1-3 Semester Credit Hours  
in an identified topic in economics. May be repeated for significantly  
different topics with written permission from the Director of Master’s  
Programs.

**ECON 5396  Directed Individual Research or Readings**  
1-3 Semester Credit Hours  
Contact Director of Master’s Programs.
Educational Administration (EDAD)

EDAD 5304 Introduction to the Principalship
3 Semester Credit Hours (3 Lecture Hours)
This course serves as an orientation to learner-centered leadership and the A&M-Corpus Christi administrator preparation program. Course activities include an assessment of student potential for learner-centered leadership and the development of an initial personal educational platform. Based on active class participation and discussion of simulated and real issues, students will construct an individual growth plan while exploring principles of professional ethics. Doctoral students will complete a research study on the best practices of the principalship. Students who have taken EDAD 5304 may not enroll in EDAD 6304. Benchmark for this course is the successful completion of a professional portfolio with a personal educational platform. This will include a philosophy, an annotated bibliography and a professional toolkit.

EDAD 5360 Organizational Theory
3 Semester Credit Hours (3 Lecture Hours)
The school as a formal organization. Focuses on theoretical aspects of organizational structures and processes with special reference to educational institutions. Doctoral students will do a scholarly analysis of two books related to Organizational Theory. Students who have taken EDAD 5360 may not enroll in EDAD 6360.

EDAD 5361 Current Topics: Focus On Law and Facilities
3 Semester Credit Hours (3 Lecture Hours)
Overview of educational administration program content and the opportunity to discuss current issues in administration, which include structure and function of national, state and local agencies of educational governance and the politics of education. Doctoral students will do an exhaustive literature review culminating in a research paper on public school law or school facilities planning. Students who have taken EDAD 5361 may not enroll in EDAD 6361.

EDAD 5363 Public School Law
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to study supervisory behavior and its related functions. Students are expected to acquire the knowledge and skills requisite to managing and supervising teaching and learning, and the knowledge, skills, and attitude related to an appropriate climate for instruction. Students who have taken EDAD 5363 may not enroll in EDAD 6363. Benchmark for this course will be the ILD Proficiencies and a personal philosophy research paper.

EDAD 5364 MANAGEMENT OF EDUCATIONAL PROGRAMS AND SPECIAL UNITS
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes the management of the internal organization and support of units of a campus. Topics include student grouping, staffing, scheduling, programming for special population students, textbooks, food service, campus security and pupil transportation. Students who have taken EDAD 5364 may not enroll in EDAD 6364.

EDAD 5366 Personnel Management
3 Semester Credit Hours (3 Lecture Hours)
Selection, assignment and evaluation of school personnel; salary and conditions of service for administrators, and instructional and non-instructional personnel. Doctoral students will do a research paper on some aspect of the human resource function of school administration. Students who have taken EDAD 5366 may not enroll in EDAD 6366. Benchmark for this course is the development of a professional resume and an analysis of a particular category of school employee presented to the class formally for a grade.

EDAD 5367 Public School Finance
3 Semester Credit Hours (3 Lecture Hours)
Study of the legal and conceptual basis of financing public schools with emphasis on Texas’ economics of school finance; taxation trends and revenue sources; financial inequalities in opportunity, ability and effort; and alternative models of school financing; managing educational resources at the district level. Students who have taken EDAD 5367 may not enroll in EDAD 6367.

EDAD 5368 School Public Relations
3 Semester Credit Hours (3 Lecture Hours)
Relationships between school districts and other societal institutions and their public opinion and attitudes; relationships with news media, conducting bond campaigns, the use of citizens’ advisory boards. Doctoral students will do a comprehensive literature review culminating in a paper on some aspect of school public relations. Students who have taken EDAD 5368 may not enroll in EDAD 6368.

EDAD 5369 The School Superintendency
3 Semester Credit Hours (3 Lecture Hours)
Simulation of the school superintendency; superintendent’s relationships with the school board, administration staff and teacher organizations; the superintendent’s planning responsibilities. Doctoral students will do a comprehensive literature review resulting in a research paper related to the superintendency. Students who have taken EDAD 5369 may not enroll in EDAD 6369.

EDAD 5374 Campus Finance and Budgeting
3 Semester Credit Hours (3 Lecture Hours)
This course is a study of the financial operations of public school campuses in Texas. Seeks to equip the principal with the knowledge and skills necessary to understand and manage the budgeting, accounting, planning, purchasing and auditing functions of a campus. Doctoral students will also complete a research paper on the theory of Public School Finance. Students who have taken EDAD 5374 may not enroll in EDAD 6374. Benchmark for this course will be the development of a campus budget with use of an AEIS report. Monies for the development of the budget are determined by the special program enrollment and enrollment individually selected by the students.

EDAD 5375 COMMUNICATION AND COMMUNITY RELATIONS
3 Semester Credit Hours (3 Lecture Hours)
A study of the multi-dimensional role of school community relations and administrative communication at the campus level. This course seeks to emphasize the importance of designing programs relating to the needs and problems of the school and its internal and external publics by employing analysis, oral and written communication formats, communication skills and processes, for a diverse democratic environment where citizen cooperation and involvement in school affairs is key to dynamic support and success of the school. Doctoral students will complete a scholarly paper on some topic related to school communications/community relations. Students who have taken EDAD 5375 may not enroll in EDAD 6375. Benchmark for this course will be the development and presentation of a public relations plan and strategy for a campus.

EDAD 5376 Supervision of Teaching
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to study supervisory behavior and its related functions. Students are expected to acquire the knowledge and skills requisite to managing and supervising teaching and learning, and the knowledge, skills, and attitude related to an appropriate climate for instruction. Students who have taken EDAD 5376 may not enroll in EDAD 6376. Benchmark for this course will be the ILD Proficiencies and a personal philosophy research paper.
EDAD 5377 Teacher Appraisal System
3 Semester Credit Hours (3 Lecture Hours)
This course examines the structure and function of the official appraisal system for Texas teachers. The course is designed to explore all facets of the current teacher evaluation process for the State of Texas. At the successful conclusion of the course, the students will receive official certification by the State of Texas to use the current teacher evaluation process for the State of Texas to appraise teachers.

EDAD 5378 Application of Administrative Concepts
3 Semester Credit Hours (3 Lecture Hours)
Students will demonstrate the capacity to plan for the use of administrative concepts in the solution of problems in a simulated school; assessment of student ability to apply knowledge in the solution of practical problems; time management techniques for administrators; conflict management strategies. Instructor approval required. Doctoral students will complete a scholarly paper on Landmark court cases in Texas. Students who have taken EDAD 5378 may not enroll in EDAD 6378. Benchmark for this course will be the Case Studies analysis presented to the class and a successful in-basket analysis.

EDAD 5390 Professional Seminar
1-3 Semester Credit Hours
Contemporary issues in education; topics vary with professional identification of participants.

EDAD 5398 Practicum in the School Superintendency
3 Semester Credit Hours
On-the-job training in a school superintendent's office. Doctoral students will write a reflection paper on the practicum relating it to the most current literature in the field. Students who have taken EDAD 5398 may not enroll in EDAD 6398.

EDAD 5399 School Administration Practicum
3 Semester Credit Hours
Required of all certification candidates. Serves as the culminating experience and the capstone of the degree/certification program. During the internship, students will assess the suitability of their skills and dispositions for administrative work; integrate skills and knowledge previously acquired; and become socialized into the administrative role. Grade assigned will be "credit" (CR) or "no credit" (NC). Instructor approval required. Student must have completed 24 hours toward the Masters; 15 hours for certification. Students who have taken EDAD 5399 may not enroll in EDAD 6399. All students taking this course must have valid teaching certificate and permission of the department. Students who do not hold a certificate in teaching may complete EDAD 5396. Students enrolled in EDAD 5396 are not eligible for a principal certification. Benchmark for this course will be the successful completion of an internship log that is referenced by 100 hours of activity in the six principal domains. The log must be verified by the site supervisor.

EDAD 5696 Directed individual Study
1-6 Semester Credit Hours
Programs will be designed for individual cases. May be repeated when topics vary.

EDAD 6304 INTRO TO THE PRINCIPALSHIP
3 Semester Credit Hours (3 Lecture Hours)
INTRODUCTION TO THE PRINCIPALSHIP This course serves as an orientation to learner-centered leadership and the A&M-Corpus Christi administrator preparation program. Course activities include an assessment of student potential for learner-centered leadership and the development of an initial personal educational platform. Based on active class participation and discussion of simulated and real issues, students will construct an individual growth plan while exploring principles of professional ethics. Doctoral students will complete a research study on the best practices of the principalship. Students who have taken EDAD 5304 may not enroll in EDAD 6304.

EDAD 6360 ORGANIZATIONAL THEORY
3 Semester Credit Hours (3 Lecture Hours)
The school as a formal organization. Focuses on theoretical aspects of organizational structures and processes with special reference to educational institutions. Doctoral students will do a scholarly analysis of two books related to Organizational Theory. Students who have taken EDAD 5360 may not enroll in EDAD 6360.

EDAD 6361 Current Topics: Focus on Law and Facilities
3 Semester Credit Hours (3 Lecture Hours)
Overview of educational administration program content and the opportunity to discuss current issues in administration, which include structure and function of national, state and local agencies of educational governance and the politics of education. Doctoral students will do an exhaustive literature review culminating in a research paper on public school law or school facilities planning. Students who have taken EDAD 5361 may not enroll in EDAD 6361.

EDAD 6363 PUBLIC SCHOOL LAW
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to study supervisory behavior and its related functions. Students are expected to acquire the knowledge and skills requisite to managing and supervising teaching and learning, and the knowledge, skills, and attitude related to an appropriate climate for instruction. Benchmark for this course will be the ILD Proficiencies and a personal philosophy research paper.

EDAD 6364 MANAGEMENT OF EDUCATIONAL PROGRAMS AND SPECIAL UNITS
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes the management of the internal organization and support of units of a campus. Topics include student grouping, staffing, scheduling, programming for special population students, textbooks, food service, campus security and pupil transportation.

EDAD 6366 PERSONNEL MANAGEMENT
3 Semester Credit Hours (3 Lecture Hours)
SCHOOL PERSONNEL MANAGEMENT Selection, assignment and evaluation of school personnel; salary and conditions of service for administrators, and instructional and non-instructional personnel. Doctoral students will do a research paper on some aspect of the human resource function of school administration. Students who have taken EDAD 5366 may not enroll in EDAD 6366.

EDAD 6367 Public School Finance
3 Semester Credit Hours (3 Lecture Hours)
Study of the legal and conceptual basis of financing public schools with emphasis on Texas' economics of school finance; taxation trends and revenue sources; financial inequalities in opportunity, ability and effort; alternative models of school financing; managing educational resources at the district level. Students who have taken EDAD 5367 may not enroll in EDAD 6367.
EDAD 6368  School Public Relations
3 Semester Credit Hours (3 Lecture Hours)
Relationships between school districts and other societal institutions and their public opinion and attitudes, relationships with news media, conducting bond campaigns, the use of citizens' advisory boards. Doctoral students will do a comprehensive literature review resulting in a research paper related to the superintendency. Students who have taken EDAD 5369 may not enroll in EDAD 6368.

EDAD 6369  The School Superintendency
3 Semester Credit Hours (3 Lecture Hours)
Simulation of the school superintendency; superintendent's relationships with the school board, administration staff and teacher organizations; the superintendent's planning responsibilities. Doctoral students will do a comprehensive literature review culminating in a paper on some aspect of school public relations. Students who have taken EDAD 5368 may not enroll in EDAD 6369.

EDAD 6374  CAMPUS FINANCE AND BUDGETING
3 Semester Credit Hours (3 Lecture Hours)
This course is a study of the financial operations of public school campuses in Texas. Seeks to equip the principal with the knowledge and skills necessary to understand and manage the budgeting, accounting, planning, purchasing and auditing functions of a campus. Doctoral students will also complete a research paper on the theory of Public School Finance. Students who have taken EDAD 5374 may not enroll in EDAD 6374.

EDAD 6375  COMMUNICATION AND COMMUNITY RELATIONS
3 Semester Credit Hours (3 Lecture Hours)
A study of the multi-dimensional role of school-community relations and administrative communication at the campus level. This course seeks to emphasize the importance of designing programs relating to the needs and problems of the school and its internal and external publics by employing analysis, oral and written communication formats, communication skills and processes, for a diverse democratic environment where citizen cooperation and involvement in school affairs is key to dynamic support and success of the school. Doctoral students will complete a scholarly paper on some topic related to school communications/community relations. Students who have taken EDAD 5375 may not enroll in EDAD 6375.

EDAD 6376  Supervision of Teaching
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to study supervisory behavior and its related functions. Students are expected to acquire the knowledge and skills requisite to managing and supervising teaching and learning, and the knowledge, skills, and attitude related to an appropriate climate for instruction. Students who have taken EDAD 5376 may not enroll in EDAD 6376.

EDAD 6377  Teacher Appraisal System
3 Semester Credit Hours (3 Lecture Hours)
This course examines the structure and function of the official appraisal system for Texas teachers. The course is designed to explore all facets of the current teacher evaluation process for the State of Texas. At the successful conclusion of the course, the students will receive official certification by the State of Texas to use the current teacher evaluation process for the State of Texas to appraise teachers. Students who have taken EDAD 5377 may not enroll in EDAD 6377.

EDAD 6378  Application of Administrative Concepts
3 Semester Credit Hours (3 Lecture Hours)
The use of administrative concepts in the solution of problems in a simulated school; assessment of student ability to apply knowledge in the solution of practical problems; time management techniques for administrators; conflict management strategies. Instructor approval required. Doctoral students will complete a scholarly paper on Landmark court cases in Texas. Students who have taken EDAD 5378 may not enroll in EDAD 6378.

EDAD 6390  PROFESSIONAL SEMINAR
3 Semester Credit Hours
Contemporary issues in education; topics vary with professional identification of participants.

EDAD 6398  Practicum in the School Superintendency
3 Semester Credit Hours (3 Lecture Hours)
On-the-job training in a school superintendent's office. Doctoral students will write a reflection paper on the practicum relating it to the most current literature in the field. Students who have taken EDAD 5398 may not enroll in EDAD 6398. Grade assigned will be “credit” (CR) or “no credit” (NC).

EDAD 6399  School Administration Practicum
3 Semester Credit Hours
Required of all certification candidates. Serves as the culminating experience and the capstone of the degree/certification program. During the internship, students will assess the suitability of their skills and dispositions for administrative work; integrate skills and knowledge previously acquired; and become socialized into the administrative role. Grade assigned will be Credit (C) or No Credit (NC). Instructor approval required. Student must have completed 24 hours toward the Masters; 15 hours for certification. Students who have taken EDAD 5399 may not enroll in EDAD 6399. All students taking this course must have valid teaching certificate and permission of the department. Students who do not hold a certificate in teaching may complete EDAD 5396. Students enrolled in EDAD 5396 are not eligible for a principal certification. Benchmark for this course will be the successful completion of an internship log that is referred by 100 hours of activity in the six principal domains. The log must be verified by the site supervisor. Must have valid teaching certificate and permission of the program coordinator.

EDAD 6696  Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Educational Curriculum & Instr (EDCI)

EDCI 5308  STRATEGIES FOR Teach Sec Schoo
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES FOR TEACHING IN THE SECONDARY SCHOOL A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial certification.
EDCI 5315 METHODS OF TEACHING MATHEMATICS
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDCI 5316 METHODS OF TEACHING SOC STUDIES
3 Semester Credit Hours (3 Lecture Hours)
METHODS OF TEACHING SOCIAL STUDIES A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences.

EDCI 5317 METHODS OF TEACHING SCIENCE
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students, prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course.

EDCI 5320 Mathematics through Communication
3 Semester Credit Hours (3 Lecture Hours)
A course for elementary and middle school teachers who are trying to improve mathematics teaching and understanding through the development of communication skills and their use in the mathematics classroom.

EDCI 5321 Mathematics through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers who wish to investigate the connection between children's literature and mathematics for the purpose of improving mathematics instruction. Teachers will work through activities based upon children's books, and develop and share similar activities based upon children's books of their choosing.

EDCI 5322 Science through Children's Literature
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for elementary and middle school teachers who wish to investigate the connections between children's literature and science for the purpose of improving their science instruction. Teachers will participate in activities based on children's trade books that have scientific themes, and develop and share similar experiences.

EDCI 5323 Interactive and Multimedia Approaches in Mathematics
3 Semester Credit Hours (3 Lecture Hours)
This is a course for K-12 teachers who wish to investigate the use of motivational and reinforcement activities as a part of the instructional program within mathematics. Emphases will be placed on the purposes for using such activities in the mathematics program, the various types of such activities that are available to the mathematics teacher, the sources for such activities in mathematics, and the need for having a variety of such activities within the mathematics program.

EDCI 5324 DIAGNOSIS AND REMEDIATION OF MATHEMATICAL ERRORS
3 Semester Credit Hours (3 Lecture Hours)
This is a course for teachers of K-12 who teach mathematics within the levels of kindergarten through algebra and wish to investigate mathematical errors for the purpose of diagnosing the cause and planning instruction for the purpose of remediation. Participating teachers will work through activities representing common mathematical errors made by students, maintain portfolios of samples of student errors, diagnose student errors, and learn teaching strategies for remediation of the problems that students are having.

EDCI 5325 Applied Connections: Mathematics, Science, and Communications
3 Semester Credit Hours (3 Lecture Hours)
The emphasis in this course is on interdisciplinary connections among mathematics, science, and communication and also on the application of subject-area knowledge to the world of work. Attention goes to relevant research, particularly research addressing effective innovations in teaching and learning. Networks will be created to support continued learning.

EDCI 5327 STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
STRATEGIES OF SUCCESS FOR THE BEGINNING TEACHER This course is a field-based course in which beginning teachers are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5397. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5330 Teaching Environmental Sciences: I
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the elementary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5331 Teaching Environmental Sciences: II
3 Semester Credit Hours (3 Lecture Hours)
In this course, emphasis will be placed on issues related to air, water and waste reduction, and how these issues relate to the secondary classroom. Students will visit state agencies and industrial sites as a part of this course. This course is only offered during the summer.

EDCI 5335 Methods of Teaching Mathematics: Grades 1-5
3 Semester Credit Hours (3 Lecture Hours)
A course designed to emphasize methods of teaching the essential elements in mathematics for Grades 1-5. An emphasis will be placed on the use of concrete manipulatives so that learning is accomplished with understanding.

EDCI 5336 Methods of Teaching Mathematics: Grades 7-8
3 Semester Credit Hours (3 Lecture Hours)
Emphasis will be placed on modeling with concrete manipulatives, teaching for understanding, integrating mathematics into other areas of the curriculum, problem solving, diagnosis, and evaluation.

EDCI 5339 PROGRAMS FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Characteristics and methods of identification of the Gifted and Talented. Various programmatic models including campus and district will be examined. Testing instruments and the concepts of differentiated curriculum will be analyzed.
EDCI 5340 Instructional Techniques for Effective Teaching
3 Semester Credit Hours (3 Lecture Hours)
This course will emphasize research-based strategies for increasing student achievement, models of successful instruction to help teachers/administrators plan, and techniques for implementation of effective instructional techniques.

EDCI 5341 Learning Theory Related to the Gifted Child
3 Semester Credit Hours (3 Lecture Hours)
An examination of current learning theories in relation to the gifted and talented child.
Prerequisite: EDCI 5339.

EDCI 5342 CURRICULUM DEVELOPMENT FOR THE GIFTED AND TALENTED
3 Semester Credit Hours (3 Lecture Hours)
Learning experiences in scope and sequence development, development of unit plans and lesson plans, and material selection and evaluation.
Prerequisite: EDCI 5339.

EDCI 5345 Visual Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Instructional materials’ design and development skills learned will be based on theoretical and research issues related to visual literacy.

EDCI 5350 Advanced School Problems
3 Semester Credit Hours (3 Lecture Hours)
Current issues in education; recent research bearing on teaching and organization of instructional programs in schools.

EDCI 5361 Educational Assessment
3 Semester Credit Hours (3 Lecture Hours)
This course will help educators to understand testing and performance assessment, and to effectively use assessment to support student learning ultimately building student success. The course prepares educators to use assessment as a tool to help develop all students in their classroom across the developmental span from Kindergarten through high school. Educators will learn how to prepare valid assessment instruments that contribute to effective instruction and student learning by developing proven, sound, high-quality assessments for use in the classroom.

EDCI 5362 Theoretical Bases for Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Reviewing and designing instructional programs; specific techniques for planning in various areas of the curriculum; concentration in area of student’s curricular specialty; specification of instructional objectives.

EDCI 5389 Curriculum and instruction Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This is designed as the culminating course in the interdisciplinary curriculum and instruction master’s degree. Covered in the class are: historical and current trends in research, the critical examination of selected research studies, and a self analysis of personal and professional interests and needs. This course calls for students to integrate and use information from previous graduate classes with information presented in this class to develop, implement, and defend an action-based research project.
Prerequisite: EDFN 5301 and EDCI 5340.

EDCI 5390 Professional Seminar
3 Semester Credit Hours
This course addresses contemporary issues in education. It may repeated when topics vary.

EDCI 5393 INTERNSHIP I AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDCI 5306 or have completed EDCI 5306.

EDCI 5394 INTERNSHIP II AND SEMINAR FOR THE INTERN TEACHER
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.

EDCI 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions. This course is taken during the second semester of the second year on a “Probationary Certificate.”
Prerequisite: EDCI 5393, 5394 and 5327.

EDCI 5397 PRACT 1 FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM I FOR THE BEGINNING TEACHER This course is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills. Enrollment is limited to certified teachers currently in teaching positions. This course is taken concurrently with EDCI 5327. This course may not be taken for graduate credit if the student has taken EDCI 5393, EDCI 5394 or EDCI 5395.

EDCI 5398 PRACT II AND SEMINAR FOR THE BEGINNING TEACHER
3 Semester Credit Hours (3 Lecture Hours)
PRACTICUM II AND SEMINAR FOR THE BEGINNING TEACHER Beginning teachers are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised classroom teaching. Enrollment is limited to certified teachers currently in teaching positions.

EDCI 5696 Directed individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

EDCI 5698 Practicum for Gifted Children
6 Semester Credit Hours (6 Lecture Hours)
This course involves a supervised experience with a variety of children classified as gifted. Students will plan and implement a program designed for gifted children.
Prerequisite: EDCI 5339.

EDCI 6301 Philosophy of Education
3 Semester Credit Hours (3 Lecture Hours)
Ontological and epistemological perspectives on leadership; historical conceptions of leadership as revealed in the works of Greek and Roman writers of the classical period and in the works of later European writers such as Machiavelli, Hobbes, Rousseau, Mill, and Weber.
EDCI 6303 ISSUES IN CURRICULUM AND INSTRUCTION
3 Semester Credit Hours (3 Lecture Hours)
This course will prepare the doctoral student in curriculum and instruction to understand, appreciate, and evaluate a variety of curricular strategies with attention paid to a continuum of philosophies and strategies in the area of curriculum development and the impact of those on instruction.
Prerequisite: EDCI 6301 or 6324.

EDCI 6324 Curriculum Theory
3 Semester Credit Hours (3 Lecture Hours)
An analysis of theoretical structures underlying curriculum development, implementation and evaluation.

EDCI 6335 CURRICULUM RESEARCH DESIGN
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on the design of research studies, including experimental and quasi-experimental designs, other quantitatively-based designs, qualitatively-oriented designs, and mixed model designs.
Prerequisite: (EDLD 6392) and (EDLD 6333) and (EDLD 6384) and (EDLD 6385).

EDCI 6336 Culture, Language, and Cognition
3 Semester Credit Hours (3 Lecture Hours)
The focus is on cultural, linguistic, and pedagogical rationales for adapting curricula and materials to meet the needs of diverse students. By adopting various theoretical, methodological, and cultural frames of reference, course participants recognize capabilities in all learners.

EDCI 6356 Writing for Publications in Higher Education
3 Semester Credit Hours (3 Lecture Hours)
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

EDCI 6390 Special Topics in Curriculum
3 Semester Credit Hours (3 Lecture Hours)
This course addresses contemporary issues in education. Topics vary. It may be repeated when topics vary.

EDCI 6391 Historical Perspectives On Curriculum
3 Semester Credit Hours (3 Lecture Hours)
Taking a historical perspective on the purposes and practices of schooling, this course covers major patterns in curriculum through the years in a national and global context. Also addressed are historiography and the history of educational research.

EDCI 6392 Critical Pedagogy
3 Semester Credit Hours (3 Lecture Hours)
Attention goes to a set of philosophical positions and educational practices known as “critical pedagogy” and also to critiques and inquiries associated with this line of scholarship that address issues of difference and disadvantage. The course considers historical patterns as well as current manifestations in such areas as race, gender, and politics.

EDCI 6397 Seminar On Dissertation Research
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to assist students in writing a research proposal (introduction, review of literature, methods) that may become the basis for a doctoral dissertation.
Prerequisite: (EDCI 6335).

EDCI 6398 Dissertation in Progress
1-6 Semester Credit Hours
Doctoral candidates conduct an approved study under the supervision of a dissertation advisor and committee.

EDCI 6696 Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

Educational Foundations (EDFN)

EDFN 5301 Introduction to Research
3 Semester Credit Hours (3 Lecture Hours)
The graduate level course is offered in support of graduate degree programs in the College of Education. It is designed to introduce the student to the fundamentals of research in education and applied behavioral sciences. That is, students will explore what research involves, the various types of research, the techniques for conducting research studies, ethical behavior in the conduct of research, and research in educational settings. Descriptive and inferential statistics will be presented in the context of the research study. Social issues related to educational research will also be presented and discussed.

EDFN 5302 STUDIES IN EQLTY OF EDUC OPPRT
3 Semester Credit Hours (3 Lecture Hours)
STUDIES IN EQUALITY OF EDUCATIONAL OPPORTUNITIES Recent developments affecting the education of minority children and youth; innovations in program development and equality of educational opportunity.

Educational Leadership (EDLD)

EDLD 6301 Philosophy of Education
3 Semester Credit Hours (3 Lecture Hours)
Ontological and epistemological perspectives on leadership; historical conceptions of leadership as revealed in the works of Greek and Roman writers of the classical period and in the works of later European writers such as Machiavelli, Hobbes, Rousseau, Mill, Weber, and Lenin.

EDLD 6302 Residency Seminar
3 Semester Credit Hours (3 Lecture Hours)
Current issues in educational leadership; national, state, and regional perspectives (taken during two consecutive semesters of academic year residency).

EDLD 6303 The Politics of Education
3 Semester Credit Hours (3 Lecture Hours)
Educational functioning from a political systems perspective; internal and external political forces influencing organizational effectiveness; shaping of educational policy; functional means of attaining and utilizing political power.

EDLD 6304 COMMUNITY COLLEGE AND UNIVERSITY ADMINISTRATION
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to examine the history and development of American systems of higher education and to study the ways in which community colleges and universities complement each other on the educational scene. Organization, funding, remedial education, and relations with the wider community will also be discussed.

EDLD 6305 STUDENT AFFAIRS IN COLLEGES AND UNIVERSITIES
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with knowledge of the field of student affairs, its role and function in college student development, and its fit with the academic program. This course is also intended to provide students with an understanding of the purposes and historical development of student personnel programs, the administrative structure of student affairs division in two and four year colleges, and the institutional units that fulfill the student services function.
EDLD 6306 Higher Education in a Democratic Society
3 Semester Credit Hours (3 Lecture Hours)
This course will examine contemporary issues in American society in the context of higher education. Students will study and debate in detail how two and four year colleges and universities respond to societal issues. The course will also examine the ways in which institutions of higher education are influenced by social issues and how they in turn influence society.

EDLD 6307 Higher Education Finance
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide students with knowledge of higher education funding in Texas, not only at the State level but also at the institutional level. The material will also provide students with a background of the historical, philosophical, and political forces that have contributed to the current funding systems in Texas and throughout the United States. Course material will also include trends in higher education funding on a state, national, and international scope.

EDLD 6308 Higher Education and the Law
3 Semester Credit Hours (3 Lecture Hours)
Study of basic legal issues as they relate to governance in higher education; including legal issues relating to trustees, administrators, staff, faculty and students; legal relationships with local, state and federal government. The course also addresses legal issues relating to accrediting, athletic and faculty associations. Legal relationships with the business/industrial community are also covered.

EDLD 6309 PRACTICUM HIGHER EDUCATION:PROCESS AND PRACTICE
3 Semester Credit Hours (3 Lecture Hours)
NCD.

EDLD 6310 THE EDUCATION AND TRAINING OF ADULTS
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to introduce adult education as both a field of practice and a field of study to professionals working in universities, community colleges, businesses, government, social service agencies, and other venues concerned with the education and training of adults. Exemplary practices in adult education and training reflect theoretic constructs undergirding the field; therefore, EDLD 6310 is a theory-into-practice class.

EDLD 6311 Contemporary Theories of Educational Leadership
3 Semester Credit Hours (3 Lecture Hours)
Assumptions of the major schools of thought regarding leadership; findings from research conducted pursuant to trait theory, behavioral theory, and situational/contingency models; conceptions of leadership effectiveness; implications for leadership in educational organizations.

EDLD 6312 Clinical Leadership Laboratory
3 Semester Credit Hours (3 Lecture Hours)
Students will undergo assessment of personal leadership skills through assessment center methodologies. Abilities assessed will include decision-making, group participation, interpersonal communication, and presentation skills.

EDLD 6313 Policy Development and Decision-making
3 Semester Credit Hours (3 Lecture Hours)
Study of policy conceptualization; development and implementation integrated with decision-making processes; ethical and moral responsibility of educational leadership.

EDLD 6314 Professionals in Educational Organizations
3 Semester Credit Hours (3 Lecture Hours)
The nature of professionalism in education; points of conflict between bureaucratic and professional norms; accommodations to conflict; integrating professional norms with organizational requirements; organizational leadership of professionals; the character of professional associations in education.

EDLD 6315 Multicultural Analysis: Concepts for Educational Leaders
3 Semester Credit Hours (3 Lecture Hours)
Study of multicultural relations in American society and an exploration of critical problems confronting educational systems in general and educational leaders in particular.

EDLD 6331 Educational innovations
3 Semester Credit Hours (3 Lecture Hours)
An examination of the basic elements of successful school renewal programs with emphasis on systematic approaches to educational innovation and the process of change; studies of successful innovative programs.

EDLD 6333 Applied Statistics 1
3 Semester Credit Hours (3 Lecture Hours)
This is a course in univariate statistics, which includes the use of Statistical Package for the Social Sciences (SPSS) with exercises related to various descriptive and inferential statistical techniques.

EDLD 6335 Quantitative Research Methods
3 Semester Credit Hours (3 Lecture Hours)
The course is designed to provide students with knowledge and skills needed to read, analyze and synthesize educational research, and to give the student experience in the development and conduct of a research project. Course content includes introduction in preparation of a research proposal, identification of a research problem, sampling techniques, research design, instrumentation, data collection, and data analysis.

Prerequisite: EDLD 6333, 6392 and 6384.

EDLD 6342 Community Leadership Development
3 Semester Credit Hours (3 Lecture Hours)
This course develops collaborative leadership skills related to initiating and implementing school and community partnerships. A special focus is the enhancement of critical literacy skills—the capacity to read and interpret events within the socio-political context of community-embedded educational leadership.

EDLD 6384 Qualitative Research Methods
3 Semester Credit Hours (3 Lecture Hours)
This course is based on reviews of the theoretical and methodological approaches to qualitative research. Students will situate qualitative inquiry/research in their philosophical, theoretical, and historical situations, learn methods of qualitative design, and develop a preliminary capacity to collect, analyze, and interpret qualitative empirical materials.

EDLD 6385 Advanced Data Analysis in Qualitative Methods
3 Semester Credit Hours (3 Lecture Hours)
This course is designed for doctoral students who want to pursue their interests in qualitative methods and who want to use these methods in their dissertation. Students would need to have a qualitative research methods course completed in order to take this class. Students will learn to use various qualitative data analysis methods using multiple data sources.

Prerequisite: EDLD 6384.
EDLD 6390  Special Topics in Educational Leadership  
3 Semester Credit Hours  
Selected topics in an identified area of Educational Leadership; advanced investigations of selected topics and problems dealing with curriculum theory, program design, and experimental formulations. May be repeated for credit when topics vary.

EDLD 6392  Applied Statistics 2  
3 Semester Credit Hours (3 Lecture Hours)  
The course in advanced statistical procedures is a continuation of EDLD 6333. Special emphasis is placed on analysis of variance (ANOVA) techniques such as one-way and factorial ANOVA, analysis of covariance (ANCOVA), repeated measures ANOVA, and multivariate analysis of variance (MANOVA), as well as multiple regression analysis, logistic regression analysis, and discriminant analysis. Also included are selected nonparametric statistical techniques. The course includes hands-on experiences in the use of Statistical Package for the Social Sciences (SPSS) with exercises related to the topics covered.  
Prerequisite: EDLD 6333.

EDLD 6395  Analysis and Reporting of Research Data  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed for doctoral students who want to develop their data analysis skills for their research projects in order to report findings for publication purposes and dissertations. Students will learn how to select appropriate data analysis methods, analyze data, and learn how to academically report research findings.

EDLD 6396  DIRECTED INDEPENDENT STUDY  
3 Semester Credit Hours  
NCD.

EDLD 6397  Dissertation Research  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to assist the student in writing a three-chapter (introduction, review of literature, methods) research proposal that may become the basis for a doctoral dissertation.  
Prerequisite: EDLD 6333, 6384, 6335 and 6392.

EDLD 6398  Dissertation  
1-6 Semester Credit Hours (1-6 Lecture Hours)  
Completion of an approved field study under the supervision of a dissertation adviser.

EDLD 6609  Practicum in Higher Education: Processes and Practices  
6 Semester Credit Hours (6 Lecture Hours)  
This course will examine the functions and practices typically found in institutions of higher education. Students will examine these functions and practices in the context of a complex organization and develop an understanding of how they contribute to the mission of the institution. Students will also complete an internship experience in a University or community college office, not their own.

EDLD 6696  Directed Individual Study  
1-6 Semester Credit Hours  
May be repeated when topics vary.

Educational Research & Studies (ERST)  

ERST 5302  Studies in Equality of Educational Opportunities  
3 Semester Credit Hours (3 Lecture Hours)  
Recent developments affecting the education of minority children and youth; innovations in program development and equality of educational opportunity.

Educational Technology (ETEC)  

Engineering Technology (ENTC)  

English (ENGL)  

ENGL 5301  Theory and Practice I: Literary Studies  
3 Semester Credit Hours  
Introduces students to techniques of research and scholarship in literary study through a survey of critical debates in literary theory. Offered in the Fall.

ENGL 5303  Theory and Practice II: Writing Studies  
3 Semester Credit Hours  
Introduces students to techniques of research and scholarship in writing studies through a survey of critical debates in writing studies scholarship, with special attention to current research on composing and its pedagogical implications. Offered in Spring semesters only.

ENGL 5340  British Literature Before 1660  
3 Semester Credit Hours (3 Lecture Hours)  
Examination of poetry, drama, or prose written before 1660. Sample topics: The Global Renaissance, Digital Shakespeare, Writing Women in Early English Literature. May be repeated for credit when topics vary.

ENGL 5342  British Literature 1660 - 1830  
3 Semester Credit Hours (3 Lecture Hours)  
Studies of major writers and texts of the British long eighteenth century (1660 - 1832). Primary focus is on the literary texts, and cultural history of the period, with opportunities to bring in current literary theories and criticism. Sample topics: Gender and Sexuality in the Novel, Gothic Fiction, Travel Writing. May be repeated for credit when topics vary.

ENGL 5343  British Poetry and Fiction 1900-Present  
3 Semester Credit Hours (3 Lecture Hours)  
Exploration of one or more writers, genres, literary movements, issues, or ideologies of the 20th century. Includes writers from the British Isles and the Commonwealth. May be repeated for credit when topics vary.

ENGL 5344  British Literature 1830 - 1900  
3 Semester Credit Hours (3 Lecture Hours)  
Studies of British fiction, poetry, and prose written between 1830 and 1900 and the social forces—domestic, economic, political, religious, scientific—that influenced and were influenced by these works. Sample topics: Social change and the Victorian body; Victorian fun; Victorians and Empire. May be repeated for credit when topics vary.

ENGL 5346  American Literature to 1865  
3 Semester Credit Hours (3 Lecture Hours)  
Readings in one or more writers, genres, literary movements, issues, or ideologies of the period. Sample topics: Transoceanic Americas: Literatures amid the Spanish Empire, American Print Cultures, Medicine and Early American literature. May be repeated for credit when topics vary.

ENGL 5347  American Literature 1865-1940  
3 Semester Credit Hours (3 Lecture Hours)  
Studies in one or more writers, genres, literary movements, issues, or ideologies of the period. Sample topics: The Lost Generation, Modernism and the Harlem Renaissance, Faulkner and the South. May be repeated for credit when topics vary.
ENGL 5348 American Literature 1945-Present
3 Semester Credit Hours (3 Lecture Hours)
Exploration of one or more major writers, genres, literary movements, issues, or ideologies since World War II. Sample topics: Experimental Narrative, US-Latin American Literature and Culture, The Postmodern Novel. May be repeated for credit when topics vary.

ENGL 5349 TOPICS AND GENRES IN LITERATURE
3 Semester Credit Hours (3 Lecture Hours)
Studies in topics and genres that span more than one literary period and/or include works from both British and American literature. Sample topics: Crossing Borders, Crossing Nations, The City in Literature, Queer Theory. May be repeated for credit when topics vary.

ENGL 5360 Writing Assessment
3 Semester Credit Hours
Study and practice in methods by which written texts are evaluated and the evaluation used for instructional purposes. Methods range from classroom techniques to formal assessment procedures (holistic, primary trait, portfolio, etc.).

ENGL 5361 BASIC WRITING THEORY AND PEDAGOGY
3 Semester Credit Hours (3 Lecture Hours)
Studies in the theory and pedagogy of the teaching of developmental writing. Focus centers on the political, sociolinguistic, and educational history and status of basic writers.

ENGL 5362 Digital Rhetoric
3 Semester Credit Hours
Explores the dynamics of online, networked reading and writing practices by examining the rhetorical, social, cultural, political, educational, and ethical dimensions of digital texts and examines issues of technology and literacy in digital spaces. Students will create digital texts in a variety of media, genres, and contexts.

ENGL 5363 Rhetoric
3 Semester Credit Hours
Examination of classical and modern traditions in rhetoric and their application to written discourse. Topics focus on contributions of classical and modern rhetoricians, written literacy, and the institutionalization of written instruction.

ENGL 5366 Visual Rhetoric
3 Semester Credit Hours (3 Lecture Hours)
Students will develop a broad understanding of the definition of visual rhetoric, learn to analyze texts by identifying the visual elements that comprise texts, understand how to use visual rhetoric, and create their own texts.

ENGL 5367 Summer Institute Writing Workshop
3 Semester Credit Hours (3 Lecture Hours)
This course is the Summer Institute of the Coastal Bend Writing Project, affiliated with the National Writing Project. It is a writing workshop designed for teachers of all levels (pre-k through university level) and subject areas, meaning we will study and practice writing in ways that benefit teachers personally and professionally. In this workshop, we will study theory and effective practices in writing pedagogy, and focus on improving participants’ writing and research skills. As a site of the National Writing Project, this course is backed by a national network of scholars and data-based practices.

ENGL 5369 TOPICS AND GENRES IN RHETORIC AND COMPOSITION
3 Semester Credit Hours (3 Lecture Hours)
Exploration of specific issues and problems in rhetoric and composition studies. Sample topics: ethnographic research, gender and writing. May be repeated for credit when topics vary.

ENGL 5372 COMPOSITION THEORY AND PEDAGOGY
3 Semester Credit Hours (3 Lecture Hours)
COMPOSITION THEORY AND PEDAGOGY A study of works by contemporary rhetoric/composition specialists, with special regard to the theoretical basis of composing and its pedagogical implications. Offered in Spring.

ENGL 5375 Creative Writing
3 Semester Credit Hours (3 Lecture Hours)
A studio approach to writing fiction, non-fiction, and poetry, with an emphasis on the elements and critical terminology of each genre.

ENGL 5376 Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
Workshop on the genres and practices of professional writing and communication.

ENGL 5377 Grant Writing
3 Semester Credit Hours (3 Lecture Hours)
An advanced workshop on the grant proposal writing process, including identifying sources of funding, conducting research to support funding applications, data analysis, tailoring each proposal to a specific funding agency, and the requirements of electronic submission. Students will receive experience writing actual proposals on behalf of local organizations and agencies.

ENGL 5380 Seminar in Sociolinguistics
3 Semester Credit Hours
Exploration of topics related to language in society, including but not limited to an introduction to sociolinguistics, language variation, disclosure analysis, language planning and policy, multilingualism, and world Englishes. May be repeated when topics vary.

ENGL 5381 Introduction to Linguistics
3 Semester Credit Hours (3 Lecture Hours)
Introduces students to the nature and behavior of human language; covers topics in phonetics, morphology, syntax, semantics, sociolinguistics, neurolinguistics, and language acquisition.

ENGL 5385 Seminar in Applied Linguistics
3 Semester Credit Hours
Exploration of topics broadly covered in the field of Applied Linguistics. Topics may include (but are not limited to) language assessment, grammar, second language writing, language and gender, corpus linguistics, and second language acquisition. May be repeated when topics vary.

ENGL 5392 Practicum for Composition Instructors
3 Semester Credit Hours
Practical training for English Teaching Assistants. A seminar in contemporary composition and rhetorical theory with practical applications for the First-Year classroom.

ENGL 5395 Thesis
3 Semester Credit Hours (3 Lecture Hours)
The thesis is a scholarly or critical project involving 6 credit hours (taken in two separate semesters) at the final stages of the graduate program. Grade assigned will be "credit" (CR) or "no credit" (NC).

ENGL 5396 Individual Study
1-3 Semester Credit Hours
Individual study, reading or research with faculty direction and evaluation. To receive program credit for the MA in English, students must have completed the English core. Credit for this course is limited to 3 hours in any degree plan. Offered on application to and approval of the program coordinator.
Environmental Science (ESCI)

ESCI 5350  Fundamentals of Physical Oceanography
3 Semester Credit Hours (3 Lecture Hours)
Principles that rule water motions and associated transport and dispersion of natural and man-made substances in the sea including a review of the mean ocean circulation and its spatial and temporal variability, observational methods, ocean circulation theories and air-sea interactions.

ESCI 5392  Thesis I: Thesis Proposal
3 Semester Credit Hours (3 Lecture Hours)
Review of the literature on a thesis topic. Completion of a written research proposal including proposed experimental design. If the thesis proposal is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

ESCI 5393  Thesis II: Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
Collection and organization of research data and presentation of a rough draft of the thesis manuscript to the thesis advisor. May be repeated; no more than three hours may be taken per semester. If the thesis draft is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

Prerequisite: ESCI 5392.

ESCI 5394  Thesis III: Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
Thesis defense and completion of the thesis manuscript including acceptance of the final copy by the advisory committee. May be repeated; no more than three hours may be taken per semester. If the thesis is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

Prerequisite: ESCI 5392.

ESCI 5397  Directed Research
3 Semester Credit Hours (3 Lecture Hours)
Emphasis on experimental design as related to environmental science. For students selecting the professional (non-thesis) option. Only three semester hours will count towards the non-thesis degree. Requires presentation of results in a written paper and seminar. If the professional paper is not completed by the end of the semester, a mark of "IP" will be awarded. An "IP" is a permanent, non-punitive grade notation. In order to receive a qualitative grade in the course, the student must enroll in and complete this course in a subsequent semester.

ESCI 5596  Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of current interest. (A total of six hours of Directed Independent Study may be counted toward the MS degree.)
ESCI 6310 Fundamentals of Remote Sensing
3 Semester Credit Hours (3 Lecture Hours)
Fundamental theory of satellite/airborne remote sensing techniques, sensor performance and calibration, and the scientific applications for land, ocean and atmosphere observations. Topics include physical principles of remote sensing, radiometry, sensors and sensor technology from infrared to microwave sensing, and scientific applications for land, ocean and atmosphere observations.

ESCI 6314 Biogeochemical Processes
3 Semester Credit Hours
Water and element cycling in the atmosphere, hydrosphere and geosphere. Microbial interactions and physical processes will be emphasized.
Prerequisite: CHEM 1311, 1312 and GEOL 1403 or ESCI 1401 or 3351.

ESCI 6320 Advanced Environmental Health
3 Semester Credit Hours
Advanced study of the toxicology and epidemiology of pollutants in the air, water and soil. Associations of environmental exposure with adverse health effects such as cancer, cardiovascular disease and reproductive outcomes, also chemical markers and symptoms of disease. Pollutants studied include lead, asbestos, radiation, radon, noise, metals, halogenated hydrocarbons, aromatic hydrocarbons, silica, indoor air quality, formaldehyde, and outdoor air pollutants.

ESCI 6321 Advanced Soil and Groundwater Restoration
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of methods for restoring contaminated soil and groundwater by examining the factors and processes influencing the efficacy of remediation systems. An emphasis will be placed on the scientific principles upon which soil and groundwater remediation is based.

ESCI 6322 Industrial Hygiene
3 Semester Credit Hours
Health protection practices in the industrial environment. Health basis for OSHA laws, regulations. Sampling and testing procedures.

ESCI 6324 Advanced Industrial Toxicology
3 Semester Credit Hours (3 Lecture Hours)
Advanced review of human physiology, general concepts of toxicology: dose-response relationship, interactions between the host and the agents, risk assessment, to provide a fundamental understanding of toxicology related to the chemicals in the workplace.

ESCI 6332 Advanced Wetlands and Water Quality
3 Semester Credit Hours (3 Lecture Hours)
Introduction to wetland ecosystems (natural, constructed and restored) with an emphasis on the role of wetlands in water quality. Topics include wetland systems, their history and role in society, relationships between biology, geology, ecology, hydrology and chemistry in wetland environments.
Prerequisite: BIOL 3428 and CHEM 4443 or ESCI 3443.

ESCI 6340 Ocean Resources
3 Semester Credit Hours (3 Lecture Hours)
Investigation of topics related to the discovery, distribution, and exploitation of marine resources of the ocean with a focus on the Gulf of Mexico, including the impact of resource exploitation on biological systems, and the development of marine policy.

ESCI 6345 Living with Coastal Hazards
3 Semester Credit Hours (3 Lecture Hours)
Study of how coastal processes, such as hurricanes, sea-level rise, and erosion, intersect with human activities to create hazardous conditions and how society responds to these conditions, presented through discussion, case studies, and field trips.

ESCI 6359 Ecosystem Dynamics
3 Semester Credit Hours (3 Lecture Hours)
Investigation of the interactions between organisms and physical processes that regulate marine ecosystem functions.

ESCI 6360 Coastal Management and Ocean Law
3 Semester Credit Hours (3 Lecture Hours)
The legal and policy framework associated with the coastal zone and ocean environment. Public access to coastal lands and waters, public trust, wetlands regulation; international law of the sea, fisheries law, and marine pollution.

ESCI 6365 Managing Occupational Safety and Accident Prevention
3 Semester Credit Hours (3 Lecture Hours)
This course provides students with advanced knowledge of regulatory requirements on occupational safety and practical techniques on accident prevention in the work environment.

ESCI 6380 Environmental Management Systems
3 Semester Credit Hours (3 Lecture Hours)
This course explores the systems management approach used by businesses and governments to promote environmental quality and sustainability. EMS and ISO 14001 standards go beyond minimally acceptable environmental compliance.

ESCI 6408 Environmental Microbiology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.
Prerequisite: BIOL 2421.

ESCI 6416 Advanced Geochemistry
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)
Advanced study of the Earth processes using principles of chemical equilibrium, thermodynamics, isotope geochemistry and organic geochemistry. Applications of low-temperature geochemistry to geologic problems.

ESCI 6480 Environmental Site Assessment
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)
Interdisciplinary application of environmental regulations, risk assessment to specific examples. Knowledge of United States environmental regulations assumed; ESCI 4301 or ESCI 6203 - Professional Skills for Scientists recommended.

ESCI 6590 Advanced Topics
1-5 Semester Credit Hours (1-3 Lecture Hours, 4 Lab Hours)
Advanced study in a specific area of environmental science. May be repeated for credit when topics vary. Offered on sufficient demand.

ESCI 6596 Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of current interest. (A total of six hours of Directed Independent Study may be counted toward the MS degree.)
Finance (FINA)

FINA 5311 Financial Management Concepts  
3 Semester Credit Hours (3 Lecture Hours)
An intensive study for students with limited or no academic experience in finance. Helps to provide an understanding of the concepts of present value, funds flow analysis, cost of capital, capital budgeting, and valuation theories used in corporate finance.  
Prerequisite: ACCT 5312, ECON 5311 and ORMS 5310.

FINA 5320 Managerial Finance  
3 Semester Credit Hours (3 Lecture Hours)
An expanded study of the theoretical framework of financial analytical principles, including contemporary topics. Combines theory and case analysis to integrate principles with practice, emphasis on the relevant theory, the application of theory to managerial problems, and the presentation of results in written and oral form. Applies concepts of corporate finance, accounting principles and quantitative analysis.  
Prerequisite: FINA 5311 and ACCT 5315.

FINA 5325 Real Estate Finance and Investments  
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the risks and rewards associated with investing in and financing residential as well as commercial real estate. These concepts include appraising/valuing income properties, valuing debt securities, and managing portfolios of properties and securities.  
Prerequisite: FINA 5311.

FINA 5330 Analysis of Derivative Securities  
3 Semester Credit Hours (3 Lecture Hours)
Analysis of financial derivative contracts; including options, futures and forward contracts; in particular commodity trading and hedging strategies. Swaps will be included in the presentation if time permits. Class is oriented to helping applicants pass the derivatives material on a broker's license exam.  
Prerequisite: FINA 5311.

FINA 5333 Personal Financial Planning  
3 Semester Credit Hours (3 Lecture Hours)
Survey course in financial planning. Covers topics in the financial planning process: cash, debt and savings management, taxes, housing decisions, insurance and risk management, investment alternatives, and retirement and estate planning.  
Prerequisite: FINA 5311.

FINA 5335 Multinational Finance  
3 Semester Credit Hours (3 Lecture Hours)
A study of corporate financial planning and decision making in a multinational environment. Topics covered include measurement and management of exchange rate risk, financing international trade, short- and long-term asset and liability management, direct foreign investment, cost of capital and capital structure, and country risk analysis.  
Prerequisite: FINA 5311.

FINA 5340 Investment and Portfolio Theory  
3 Semester Credit Hours (3 Lecture Hours)
A study of the financial markets, security, evaluation, efficiency of markets evaluations, investment goals and portfolio selection. Professional investment management techniques are examined in the context of modern portfolio theory. A unified systems approach is adopted for investment selection and control.  
Prerequisite: FINA 5320.

FINA 5345 Financial Markets and Institutions  
3 Semester Credit Hours (3 Lecture Hours)
The role of the financial markets and institutions in the global economy is examined including regulation, money market operations, global impact of central banking monetary policy, and determinants of interest rates and financial asset pricing.

FINA 5370 Seminar  
1-3 Semester Credit Hours
in specific topics within Finance. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

FINA 5396 Directed Individual Research Or Readings  
1-3 Semester Credit Hours
Contact Director of Master's Programs.

Fisheries and Mariculture (FAMA)

FAMA 5102 Graduate Defense Seminar  
1 Semester Credit Hour (1 Lecture Hour)
Formal presentation of the research activities conducted for the MS degree. To be taken the final semester of resident graduate study.

FAMA 5312 Mariculture Techniques  
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
The study and hands-on application of biological, mechanical, and other concepts required to develop the skills and techniques necessary for efficient operation and management of public and private aquaculture facilities.  
Co-requisite: SMTE 0091.

FAMA 5314 Aquatic Animal Nutrition  
3 Semester Credit Hours (3 Lecture Hours)
The study of current concepts in aquatic animal nutrition including nutrient sources and requirements, efficiency factors, digestive/digestive/metabolic processes, formulation and processing of feeds, and practical feeding considerations for selected aquatic species.  
Co-requisite: SMTE 0092.

FAMA 5322 Aquaculture Business Planning  
3 Semester Credit Hours (3 Lecture Hours)
The application of economic and business principles to the development of commercial and developmental aquaculture projects in order to maximize efficiency of operation and profitability. Students are introduced to project concept, risk management, business planning, financing, aquaculture marketing and development of financial documents.

FAMA 5327 Marine Restoration Ecology  
3 Semester Credit Hours (3 Lecture Hours)
Overview of the rapidly expanding practice of restoring degraded marine, estuarine, and coastal ecosystems. Teaching methods will include lectures, discussion, paper critiques, field visits, and restoration plans. Course will explore ecological theory as it applies to restoration, restoration planning and implementation strategies, and controversies surrounding the practice of restoration.
FAMA 5328 Fisheries Ecology and Management
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project.

FAMA 5329 Fisheries Techniques
3 Semester Credit Hours (2 Lecture Hours, 3 Lab Hours)
Designed to provide students with practical experience in the theory and application of traditional and modern fisheries sampling and management techniques with an emphasis on practical sampling design and data interpretation. This is a hands-on field and laboratory based course that will develop skills that are commonly used by fisheries scientists and sought by future employers.

Co-requisite: SMTE 0091.

FAMA 5332 Aquatic System Design
3 Semester Credit Hours (3 Lecture Hours)
The study of aquatic system engineering and design for aquaculture farms, hatcheries, recirculating systems and research facilities. Additional topics covered include aquaculture site selection criteria and use of computer-aided design software.

FAMA 5338 Applied Fisheries Statistics
3 Semester Credit Hours (3 Lecture Hours)
Data analysis is a critical component in fisheries research and management. Throughout this course, the students will learn to practice the series of data analysis and techniques that are relevant to fisheries science, with the aids of the personal computer software.

FAMA 5355 Public Aquarium and Animal Care Operations
3 Semester Credit Hours (3 Lecture Hours)
This course examines the unique requirements needed for aquariums and zoos to balance animal care and health with public display for general education and conservation research.

Co-requisite: SMTE 0091.

FAMA 5370 Mariculture
3 Semester Credit Hours (3 Lecture Hours)
Survey of physiological, behavioral, environmental and economic parameters governing the culture of selected aquatic species. Included are techniques and methods employed worldwide to produce various marine species.

FAMA 5392 Thesis Proposal
3 Semester Credit Hours (3 Lecture Hours)
Thesis students must submit a completed proposal for their thesis project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for FAMA 5393 - Thesis Research.

FAMA 5393 Thesis Research
3 Semester Credit Hours (3 Lecture Hours)
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll.

Prerequisite: FAMA 5392.

FAMA 5394 Thesis Submission
3 Semester Credit Hours (3 Lecture Hours)
Completion of the final draft of the thesis, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll.

Prerequisite: FAMA 5392 and (FAMA 5393 or 5393*).

Prerequisite: May be taken concurrently.

FAMA 5397 Professional Paper Submission
3 Semester Credit Hours
Completion of the final draft of the professional paper (professional track students), signed by the graduate committee. A course section will be created for the student to enroll.

Prerequisite: FAMA 5998.

FAMA 5421 Chemistry of Natural Waters
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The examination of water as an environmental medium and how it may be monitored and managed for maximizing the growth and survival of various aquatic species.

Prerequisite: CHEM 1411.

Co-requisite: SMTE 0093.

FAMA 5436 Marine Ecological Processes
4 Semester Credit Hours (4 Lecture Hours)
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.

Prerequisite: BIOL 3428.

Co-requisite: SMTE 0091.

FAMA 5590 Special Topics
1-5 Semester Credit Hours (1-5 Lecture Hours)
In-depth study and discussion of selected topics relevant to mariculture or fisheries. May be repeated when topics vary.

FAMA 5596 Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of mariculture or fisheries interest.

FAMA 5940 Project Research
1-9 Semester Credit Hours
Research related to the MS project. Students can only apply 6 hours of credit toward the MS degree in Fisheries and Mariculture with approval of the committee.

FAMA 5998 Internship
1-9 Semester Credit Hours
Professional Track students are required to undertake an extensive internship program with an approved agency, institution, or commercial operation to develop skills and techniques relating to fisheries science or the culture of aquatic species. Students will participate in internship activities at selected aquaculture or fisheries facilities.

Geographic Information Science (GISC)

GISC 5300 FNDTNS OF GEOGRAPHIC INF SYS
3 Semester Credit Hours (3 Lecture Hours)
FOUNDATIONS OF GEOGRAPHIC INFORMATION SYSTEMS This course will cover the basic principles and concepts of GIS. Topics will include maps as numbers, getting spatial digital data into the computer, use of GIS databases, principles and use of GIS software, and including applications to the K-12 environment.
Geology (GEOL)

GEOL 5101 Geology Seminar
1 Semester Credit Hour (1 Lecture Hour)
An examination of concepts and theories in geology and their linkages to other disciplines such as environmental science, computer science, geographic information science, and education. Seminar themes may vary from year to year. May be repeated for credit but credit may be applied only once towards degree.

GEOL 5308 Coastal Geoenvironments and Change
3 Semester Credit Hours (3 Lecture Hours)
Investigations of the origin, character, and processes of coastal geoenvironments with an emphasis on tracking historical and projecting future changes. Involves examination of the interactions of geological and biological processes and impacts of human activities on coastal depositional systems. Includes applications of remote sensing, ground studies, and GIS for mapping geoenvironments and analyzing change. Readings in current literature, day field trips, and a project.

GEOL 5321 Advanced Soil and Groundwater
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of methods for restoring contaminated soil and groundwater by examining the factors and processes influencing the efficacy of remediation systems. An emphasis will be placed on the scientific principles upon which soil and groundwater remediation is based.

GEOL 5322 Advanced Geophysical Techniques Seminar
3 Semester Credit Hours (3 Lecture Hours)
This graduate-level course is for coastal and marine system science and environmental science majors and professional petroleum geologists who would like a better understanding of advanced geophysical techniques and principles available to geoscientist working subsurface problems. The course will consist of an examination of current topics, techniques, and software. New techniques and topics will be presented by geology staff and visiting experts working in those fields.
Prerequisite: GEOL 4411 and 4322.

GEOL 5336 Groundwater Geochemistry
3 Semester Credit Hours (3 Lecture Hours)
Principles of the geochemistry of groundwater including chemical thermodynamics. Characterization of the chemistry of natural and contaminated groundwater. Chemical measurements, analyses, and calculations. Includes readings in current literature and research on a selected topic.
Prerequisite: GEOL 4444.

GEOL 5437 Computer Applications and Modeling in Hydrogeology
4 Semester Credit Hours (4 Lecture Hours)
Principles of analytical and numerical modeling in hydrogeology. Use of available software for aquifer test solutions, aquifer simulation modeling, and mass transport. Completion of modeling projects. Includes readings in current literature.
Prerequisite: GEOL 4444.
Co-requisite: SMTE 0094.

GEOL 5438 Mass Transport Modeling in Hydrogeology
4 Semester Credit Hours (4 Lecture Hours)
Principles of numerical modeling of mass transport in groundwater systems. Use of software and computer systems for numerical simulations. Laboratory time devoted to completion of modeling projects. Includes readings in current literature.
Prerequisite: GEOL 6437.
Co-requisite: SMTE 0094.

GEOL 5490 Advanced Topics
4 Semester Credit Hours (1-4 Lecture Hours, 1-4 Lab Hours)
Subject varies. Advanced topics including current literature research. May be repeated for credit when topics are sufficiently different.

GEOL 5596 Directed independent Study
1-5 Semester Credit Hours
Study in areas of current interest.

GEOL 6321 Advanced Soil and Groundwater Restoration
3 Semester Credit Hours (3 Lecture Hours)
Advanced study of methods for restoring contaminated soil and groundwater by examining the factors and processes influencing the efficacy of remediation systems. An emphasis will be placed on the scientific principles upon which soil and groundwater remediation is based. Cross listed with ESCI 6321.

GEOL 6416 Advanced Geochemistry
4 Semester Credit Hours (4 Lecture Hours)
Advanced study of the Earth processes using principles of chemical equilibrium, thermodynamics, isotope geochemistry and organic geochemistry. Applications of low-temperature geochemistry to geologic problems.
Prerequisite: CHEM 1311 and 1111 and (CHEM 1312 or 1112) and MATH 2413 and GEOL 3414.

GEOL 6422 Advanced Geophysics
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)
Advanced techniques to assess physical properties and processes of the Earth. Topics include earthquake seismology, refraction and reflection seismology, gravimetry, magnetism, electrical methods, and radioactivity of Earth materials. Application of geophysical methods to the study of the Earth, in oil and gas exploration, and in economic and environmental geology.
Prerequisite: (GEOL 4421, PHYS 1401 or 2425) or (PHYS 1402 or 2426) and (MATH 2413).

GEOL 6423 Advanced Seismic Methods
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)
Advanced methods for the acquisition, processing, and interpretation of 2D and 3D seismic data. Lectures and field exercises are covered. Topics include conceptual and historical foundations of modern reflection seismology; an overview of seismic wave phenomena in acoustic, elastic, and porous media; acquisition principles for land and marine seismic surveys; methods used to create 2D and 3D seismic images from field data; concepts of dip moveout, prestack migration, and depth migration; concepts and limitations of 3D seismic interpretation for structure, stratigraphy, and rock property estimation; and the interpretation role of attributes, impedance estimation, and AVO.
Prerequisite: GEOL 4322.

GEOL 6424 Advanced Environmental and Engineering Geophysics
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)
Advanced geophysical techniques for exploring the shallow subsurface for environmental and engineering purposes. Topics include seismic, resistivity, ground penetrating radar, electromagnetic, gravity, and magnetic methods. This course includes both lectures and labs (field exercises) components.
Prerequisite: (PHYS 1401 or 2425) and (PHYS 1402 or 2426) and (MATH 2413).
**Geospatial Computer Science (GSCS)**

**GSCS 6102 Graduate Seminar**
1 Semester Credit Hour (1 Lecture Hour)
Advanced topic study and presentation by students, faculty, or visiting scientists. Meets one hour weekly. Must be taken three times by all GSCS PhD students.

**GSCS 6302 Graduate Seminar**
3 Semester Credit Hours (3 Lecture Hours)
This is a 3-credit course that is intended to help facilitate the development of a student's dissertation research ideas and to contribute to the student's professional development as a doctoral level researcher in the field of geospatial computer science. The course focuses on developing professional research skills typically not provided in formal coursework such as methods for novel research, literature review, developing a research prospectus, presenting scientific research, research ethics, peer-review process, and professional society engagement. At the outcome, students will have a better understanding of the research process and a foundation to aid their development as a doctoral student and professional scientific researcher.

**GSCS 6321 Geospatial Data Structures**
3 Semester Credit Hours (3 Lecture Hours)
The representation of spatial data is an important issue in diverse areas including computer graphics, geographic information systems (GIS), robotics, and many others. Choosing an appropriate representation is a key to facilitate operations such as spatial search. This course will focus on representation of point data and object data, which are the important types of spatial data. Various fundamental data structures on spatial data, such as quadtrees, kd-trees, grid structures, kd-trees, and R-trees will be explored. The use of these structures to address some important problems will also be covered.

**GSCS 6329 Scientific Visualization**
3 Semester Credit Hours (3 Lecture Hours)
This course presents principles and methods for visualizing data resulting from measurements and calculations in both the physical sciences and the life sciences. The emphasis is on using 2D and 3D computer graphics to garner insight into multi-dimensional data sets for understanding and solving scientific problems. Topics include visualization software and techniques, human vision attributes and limitations, data encoding, data representation, volume rendering, flow visualization, and information visualization.
Prerequisite: COSC 5327 and GSCS 6321.

**GSCS 6331 Advanced Geospatial Computing**
3 Semester Credit Hours (3 Lecture Hours)
Seminar in reading and critical evaluation of academic literature in the field of geospatial computing. Student will design, implement, and evaluate an advanced, contemporary geospatial computing technology to solve a geospatial problem.

**GSCS 6344 Ubiquitous Positioning**
3 Semester Credit Hours (3 Lecture Hours)
The aim of this course is to introduce the principle of positioning indoors/outdoors using sensors and short-range radio frequency signals in smartphones. These sensors will include a GNSS receiver, an accelerometer, a gyroscope, a magnetometer, a barometer, and a camera, why short-range RF signals will include WiFi and Bluetooth signals. The course will concentrate on various positioning algorithms for fusing sensor measurements and RF signal measurements.
Prerequisite: GSCS 5321.

**GSCS 6390 Special Topics**
3 Semester Credit Hours (3 Lecture Hours)
Variable content study of specific areas of geospatial computing science. May be repeated for credit when topics vary. Offered on sufficient demand.

**GSCS 6996 Research**
1-9 Semester Credit Hours
Independent research conducted under supervision of an advisor. Open to Geospatial Computing Science students who have not yet passed the qualifying exam and with consent of their graduate advisor. The course is graded with an S or U, and may be repeated.

**GSCS 6998 Dissertation Research**
1-9 Semester Credit Hours
Research related to PhD dissertation. Open only to degree candidates having passed the qualifying exam in Geospatial Computing Science with consent of their graduate advisor. The course is graded with an S or U, and may be repeated.

**GSCS 6999 Dissertation Defense**
1-9 Semester Credit Hours
Open only to degree candidates in Geospatial Computing Science with consent of their graduate advisor. Students should enroll in this course during their last semester of the GSCS PhD program. To successfully complete this course the student must pass the dissertation defense as well as have a final copy of the dissertation signed by the full graduate committee and approved for binding and distribution. A grade of Credit/No Credit will be assigned for the class with the possibility to assign the grade of IP or In Progress. If a grade of IP is assigned, the course must be repeated the following semester(s) until the course is passed.

**Geospatial Systems Engineering (GSEN)**

**GSEN 5355 DESIGN-ANALYSIS GIS APPLICATIONS**
3 Semester Credit Hours (3 Lecture Hours)
DESIGN-ANALYSIS GIS APPLICATIONS Programming course focusing on the design and implementation of GIS scripts. Topics covered include GIS scripts, GIS tool creation, and user interface design and implementation.
GSEN 5365 SPATIAL DATABASE DESIGN
3 Semester Credit Hours (3 Lecture Hours)
An introduction to spatial database principles and the practical skills of design implement, and use of spatial databases. Topics covered include basic database model, spatial database design and management, spatial indexes, and spatial data mining. Advanced knowledge and skills in spatial databases are also covered.

GSEN 5381 CADASTRAL INFOSYSTEMS DESIGN
3 Semester Credit Hours (3 Lecture Hours)
A review of the evolution of European cadastral systems and land records traditions and alternatives. Examination of the goals and purposes of land tenure systems with attention to social, political, legal, economic, organizational, and technical issues. Exploration of U.S. modernization efforts and the problems of developing countries.

GSEN 5382 PLCY-LEGAL ASPECT SPATL INFOSYS
3 Semester Credit Hours (3 Lecture Hours)
POLICY AND LEGAL ASPECTS OF SPATIAL INFORMATION SYSTEMS A study of the current and emerging status of computer law in electronic environments. Covers issues related to: privacy, freedom of information, confidentiality, copyright, and legal liability; the impact of statue and case law on use of digital databases and spatial databases; and research of legal options of conflicts related to spatial data.

GSEN 5383 ADV GEOSPATIAL ANALYSIS DESIGN
3 Semester Credit Hours (3 Lecture Hours)
ADVANCED GEOSPATIAL ANALYSIS AND DESIGN An advanced course that focuses on spatial analysis and modeling in GIS. Topics covered include exploratory analysis of spatial data, network analysis, exploring spatial point patterns, area objects and spatial autocorrelation, spatial interpolation, and spatial regression. New approaches to spatial analysis are also covered.

GSEN 5384 GEOSPATIAL VISUALIZATION DESIGN
3 Semester Credit Hours (3 Lecture Hours)
GEOSPATIAL VISUALIZATION DESIGN Basic elements of thematic cartography, cartographic theory, and cartographic projections. Integration of cartographic principles with GIS visualization. Principles of map design with GIS data.

GSEN 5385 ANAL-DIGITAL PHOTOGRAMMET ENG
3 Semester Credit Hours (3 Lecture Hours)
ANALYTICAL AND DIGITAL PHOTOGRAMMETRY ENGINEERING A study of the mathematical and geometric models of modern photogrammetry. Covers principles of stereoscopic vision, collinearity, coplanarity, epipolar geometry, ground control densification and extension by analytical aerotriangulation. Explores automation in photogrammetric procedures - digital aerotriangulation, automated data capture.

GSEN 5386 PROBLEMS -REMOTE SENSING ENVIR
3 Semester Credit Hours (3 Lecture Hours)
PROBLEMS-REMOTE SENSING OF THE ENVIRONMENT Advanced problems in photo interpretation, photogrammetry and remote sensing within a GIS. Topics include utilization of expert computer systems, knowledge based environmental modeling, macro languages and spatial modeling languages. Operations and laboratories will cover mathematical operations on raster layers, convolution filtering, neighborhood analysis, principal components, proximity, contiguity and descriptor table manipulation. Final project includes the development of a remote sensing of the environment software program with a graphical user interface.

GSEN 5393 Graduate Creative Project
1-3 Semester Credit Hours
An applied research group project in geospatial surveying engineering from problem definition to implementation in an area provided by faculty in the course of study. Fall, Spring, and Summer.

GSEN 5395 Graduate Research Design
3 Semester Credit Hours (3 Lecture Hours)
Preparatory and developmental research for the Graduate Thesis or creative project resulting in the preliminary design and formal proposal of the graduate project. This thesis or a creative project proposal must be reviewed and approved by the project chairperson to receive credit. A grade of Credit/No Credit will be assigned for the class with the possibility to assign the grade of IP or In Progress. If a grade of IP is assigned, the course must be repeated the following semester(s) until the course is passed. Credit will not be recorded until the Graduate Project Proposal is approved by the Graduate Project Committee Chair. Offered Fall, Spring, and Summer semesters.

GSEN 5698 Graduate Thesis
1-6 Semester Credit Hours
An applied research project in geospatial systems engineering from problem definition to implementation in an area of particular interest to the student that relates to the course of study.

GSEN 6330 Spatial Systems Science
3 Semester Credit Hours (3 Lecture Hours)
Introduction and advanced usages of mapping datums, coordinate systems, and accuracy requirements for geographic information systems (GIS). Use of GIS tools to investigate statistical patterns and relationships among maps and geo-databases. Derivation of new maps and analysis based on spatial context, patterns, surface configuration, proximity, connectivity and flows. Prerequisite: MATH 6316.

GSEN 6355 Geospatial Programming Techniques
3 Semester Credit Hours (3 Lecture Hours)
Course teaches programming techniques in geospatial fields, such as how to automate GIS tasks using Python and other scripting languages. Automation can make your work easier, faster, and more accurate, and knowledge of a scripting language is a highly desired skill in GIS analysts. Fall.

GSEN 6356 Programming for Geospatial Data Science
3 Semester Credit Hours (3 Lecture Hours)
Python is becoming more and more popular for doing data science worldwide, especially companies are using python to gather insights from their data and get a competitive edge. This course focuses on Python specifically for geospatial data science. Students will learn about powerful approaches to store and manipulate data as well as cool data science tools to start their own analyses.

GSEN 6365 Spatial Database Design
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on spatial database principles and the practical skills of design, implementation, and use of spatial databases. This course will first cover fundamentals of relational database design, and then focus on design and management of spatial databases utilizing geodatabase models. In addition, case studies of geodatabase design models in several applications will also be covered. This course is intended for students who want to design, create, maintain and manipulate data from a geospatial database. Spring.
GSEN 6367 Geospatial Data Mining
3 Semester Credit Hours (3 Lecture Hours)
Geospatial data mining is the process of automatically discovering interesting and useful spatial patterns in large geospatial datasets. This course begins by covering fundamental concepts and techniques in data mining. Specific topics covered include classification, association analysis, and clustering analysis. It then focuses on using these data mining techniques for handling spatial, temporal, and spatio-temporal data. In addition, the data mining tools to implement applications in geoscience will also be covered. Spring.

GSEN 6370 UAS for Surveying and Mapping
3 Semester Credit Hours (3 Lecture Hours)
Introduces the fundamentals of mapping with small Unmanned Aircraft Systems (sUAS) using digital imaging sensors to produce high resolution, accurate geospatial surveying products. The course will cover the full spectrum of UAS mapping including technology, current regulations, operational factors, flight design, photogrammetric data processing, and data fidelity. Supporting concepts will include georeferencing and ground control, 3D reconstruction with structure-from-motion photogrammetry, orthorectification and image mosaicing, accuracy assessment, and current developments in UAS for geomatics. Processing and analysis workflows using commercial and open-source software will be conducted to transform UAV image sequences into geospatial data products, extract analytics, assess results, and optimize output. Spring.

GSEN 6371 Geopositioning Systems and Autonomous Navigation
3 Semester Credit Hours (3 Lecture Hours)
Addresses the foundations and computational techniques of Global Navigation Satellite Systems (GNSS) and inertial measurement units (IMUs) for autonomous navigation applications. Specifically, the course will cover concepts and principles of GNSS signal structures and the derivation of observables; error sources and corrections; point, differential, and kinematic positioning techniques; IMU linear and angular dynamics modeling; mechanization of inertial navigation and error propagation; global/local coordinate frames and conversion; and filtering techniques for GNSS/IMU integration. The course also covers current and future capabilities of emerging geopositioning systems as they relate to autonomous navigation and mobile devices. Fall.

GSEN 6380 Applied Geospatial Statistics
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on geospatial statistics methods particularly multivariate statistics and applications of the statistical procedures to research geospatial problems. Research on geospatial problems often requires the application of multivariate statistical methods to produce new insight. Various existing statistical software is available to conduct multivariate statistical analysis, however, the interpretation of the results rely on solid understanding of statistic principles and theories. This course is intended for students who want to apply statistical methods to research geospatial problems.

GSEN 6381 Cadastral Information Systems Design
3 Semester Credit Hours (3 Lecture Hours)
A review of the evolution of European cadastral systems and land records traditions and alternatives. Examination of the goals and purposes of land tenure systems with attention to social, political, legal, economic, organizational, and technical issues. Exploration of U.S. modernization efforts and the problems of developing countries. Spring odd years.

GSEN 6382 Policy and Legal Aspects of Spatial Information Systems
3 Semester Credit Hours (3 Lecture Hours)
A study of the current and emerging status of computer law in electronic environments. Covers issues related to: privacy, freedom of information, confidentiality, copyright, and legal liability; the impact of statute and case law on use of digital databases and spatial databases; and research of legal options of conflicts related to spatial data. Fall.

GSEN 6383 Advanced Geospatial Analytics
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on the theory, techniques, and applications of advanced geospatial analytics. Topics covered include spatial point patterns, network analysis, area objects and spatial autocorrelation, and spatial interpolation. New approaches to geospatial analytics will also be covered. This course emphasizes the methods and the applied side of geospatial analytics that can be useful in students’ own theses or projects for their current or potential employers. Fall.

GSEN 6384 Geospatial Visualization Design
3 Semester Credit Hours (3 Lecture Hours)
This course will ensure that students understand and apply cartographic theory for visual communication and visual thinking, and be able to create, evaluate, and critique reference and thematic maps using GIS software. Fall.

GSEN 6385 Photogrammetric Engineering and Lidar Scanning
3 Semester Credit Hours (3 Lecture Hours)
A study of the analytical and systems engineering foundations of airborne photogrammetry and geodetic imaging technologies for 2D and 3D mapping of natural and built environments. The course covers principles of digital imaging, camera calibration, stereo and multi-view photogrammetry, analytical photogrammetry, structure-from-motion, light detection and ranging (lidar) systems, and emergent scanning and imaging approaches. The course also details photogrammetric and lidar data processing, point cloud analysis, and applications.

GSEN 6386 Remote Sensing and Image Analysis
3 Semester Credit Hours (3 Lecture Hours)
Addresses the interpretation, processing and analysis techniques of remotely sensed data acquired by orbital and sub-orbital platforms. Physical principles and imaging mechanisms, remote sensing systems, data characteristics, image processing, and information extraction methods will be covered. Topics include passive optical imaging with multispectral, hyperspectral, and thermal sensing; active imaging with radar sensing; image corrections and rectification; spatial/frequency transforms and image filtering; image classification and feature extraction; and image processing with machine learning techniques. Applications in the course will be focused on geomatics and monitoring of natural and built environments. Fall.

GSEN 6390 Advanced Topics
3 Semester Credit Hours (3 Lecture Hours)
Variable content study of specific areas of geospatial surveying engineering. May be repeated for credit when topics vary. Offered on sufficient demand.

GSEN 6396 Directed Independent Study
3 Semester Credit Hours (3 Lecture Hours)
Study in areas of current interest.
Health Care Administration (HCAD)

HCAD 5312 The Health Care System
3 Semester Credit Hours (3 Lecture Hours)
Focus on the major components of the American health care system and related issues in the administration of care delivery. Policy information and political issues are discussed.

HCAD 5320 Health Economics and Policy
3 Semester Credit Hours (3 Lecture Hours)
Analysis and evaluation of classical and modern economic theory, principles and procedures applicable to the health care delivery system and their implications for public policy.

HCAD 5325 Health Care Financial Management
3 Semester Credit Hours (3 Lecture Hours)
Overview of concepts, principles and uses of basic accounting and budgeting information for the health care manager. Focuses on providing the nurse administrator with a basis for understanding the fiscal status of a health care organization; Includes 45 hours of laboratory time to strengthen financial skills including ROI, budget development, FTEs and financial statement analysis. This course is cross-listed with NURS 5360. This course is delivered through online technology.

HCAD 5330 Health Law and Ethics
3 Semester Credit Hours (3 Lecture Hours)
A study of the legal and related ethical aspects of the health care delivery system including governing boards, liabilities, consent and malpractice as well as other related topics. Current governmental, state and other regulating bodies are presented.

HCAD 5390 Health Care Selected Topics
3 Semester Credit Hours (3 Lecture Hours)
In-depth study and discussion of various topics relevant to health care administration. May be repeated when topics vary.

HCAD 5396 Directed Independent Study
1-3 Semester Credit Hours
See College Description.

History (HIST)

HIST 5310 Historiography
3 Semester Credit Hours (3 Lecture Hours)
A study of the literature of history with attention to the differing methodological approaches and their evolution over time. Required of all graduate students in history.

HIST 5320 Research Methods
3 Semester Credit Hours (3 Lecture Hours)
Students will develop and practice research skills using primary sources and write an original research paper. Topics will vary according to the course instructor. Required of all graduate students in history.

HIST 5322 Research Seminar: The American Civil War
3 Semester Credit Hours
RESEARCH SEMINAR: THE AMERICAN CIVIL WAR Students will write a research paper in Civil War history based largely on primary source materials. Topics will be tailored to fit the student's needs and interests in consultation with the course instructor.

HIST 5323 Seminar: the Gilded Age
3 Semester Credit Hours (3 Lecture Hours)
Thematic seminar examining the late-nineteenth century America. Topics include the New South, the closing of the frontier, corporate enterprise and its effects on work and society, the party system, populism, the city, and overseas expansion.

HIST 5324 Seminar: U.S. Modern Popular Culture
3 Semester Credit Hours (3 Lecture Hours)
Explores leading examples of U.S. modern popular culture from the late nineteenth century to the present, with attention to interpretations and theories that help explain cultural change. Topics include consumerism, motion pictures and television, sports, music, and popular literature.

HIST 5328 Seminar: Mexican American History
3 Semester Credit Hours (3 Lecture Hours)
A study of the events, personalities, organizations, and individuals that have been critical in the development of the modern Mexican American community. Emphasizes politics and organization building.

HIST 5329 Seminar: United States Women's History
3 Semester Credit Hours (3 Lecture Hours)
A seminar that will include readings on women's historiography, and also will address several key topics in American women's history, including: plantation, slave, and immigrant women, activism, sexuality, work, religion, politics, societal prescriptions of femininity, and mass cultural influences.

HIST 5331 Seminar: U.S. From 1945 to Present
3 Semester Credit Hours (3 Lecture Hours)
A study of U.S. social, political, cultural, and economic history in the decades following World War II. Topics include the Cold War, foreign relations, the Civil Rights movement, Vietnam, and the Sixties.

HIST 5333 Seminar: Early American History
3 Semester Credit Hours (3 Lecture Hours)
Examines early American history from European contact through the American Revolution. Topics and themes include slavery, class, gender, environmental history, religion, the movement of peoples, the encounter between Indians and Europeans, and the formation of democratic institutions.

HIST 5336 Seminar: United States Urban History
3 Semester Credit Hours (3 Lecture Hours)
A study of the geographic, economic, social, and political development of American cities, the structuring of the country's urban networks, and the evolution of American urban life.

HIST 5337 Seminar: Religion and Society in Early America
3 Semester Credit Hours (3 Lecture Hours)
Examines the religious history of early America from European contact through the antebellum period, with a focus on the vibrant religious cultures early Americans created and the ways they used religion to understand themselves and order their world.

HIST 5338 Seminar: History of American Education
3 Semester Credit Hours (3 Lecture Hours)
A thematic seminar that examines the history of American public education since the 19th century. Topics include the role of the state in educating citizens, common schools, the feminization of teaching, vocational education, immigrant education, bilingual education, school desegregation, and urban school movements.
HIST 5351  Seminar: Colonial Mexico
3 Semester Credit Hours (3 Lecture Hours)
An examination of economic, social and political developments in colonial New Spain, as well as an attempt to place New Spain in a larger regional context.

HIST 5355  Youth and Protest in the Americas
3 Semester Credit Hours
An examination of recent approaches to the study of youth in Latin America and North America. Explores youth activism as a window into understanding how age functions as a category of analysis. Topics include university reform movements, consumer culture, and labor struggles.

HIST 5360  Public History: Corpus Christi and South Texas
3 Semester Credit Hours (3 Lecture Hours)
A discussion of the role and use of history outside traditional academic settings. Introduction to the work of historical associations, historic preservation, historic editing, museums and archives, and oral history, with discussion of techniques for incorporating such resources into teaching.

HIST 5370  Oral History: Techniques and Practice
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the methodology and practice of planning, conducting, editing, and transcribing interviews with eyewitnesses to or participants in historic events, highlighting Corpus Christi and the South Texas region.

HIST 5372  Seminar: Pacific Rim
3 Semester Credit Hours
Examines critical intersections among the histories of Asia, the Pacific, and the Americas since the turn of the nineteenth century, with a focus on interdisciplinary theoretical and methodological approaches to human migration, critical race and ethnic studies, war and colonialism, gender ideology, and borderland studies in transnational and diasporic contexts.

HIST 5373  Seminar: Modern East Asia
3 Semester Credit Hours
Designed to help students develop bibliographical and historiographical command of modern East Asian history, the course examines the recent scholarly literature on the paradigm of modernization, colonialism, revolution, gender, class, and historical memory in the region’s three principal states-China, Korea, and Japan.

HIST 5380  Seminar in History
3 Semester Credit Hours
An intensive study of selected issues, periods, regions, or themes in history based on independent reading, research, and writing by the student. May be repeated when topics vary. This course is delivered either in classroom or through online technology. When delivered through online technology, students must have access to a computer and Internet to complete course work.

HIST 5390  Internship in History
3 Semester Credit Hours (3 Lecture Hours)
A hands-on experience in historical work. Arranged in consultation with the student’s advisor. May be repeated when topics vary. Grade assigned will be "credit" (CR) or "no credit" (NC).
Prerequisite:.

HIST 5395  Thesis
3 Semester Credit Hours
May be repeated once for credit.

HIST 5396  Individual Study
1-3 Semester Credit Hours
Individual study, reading or research with faculty direction and evaluation. Topic must not duplicate regular graduate courses and must be in the field of expertise of the instructor.

Instructional Des & Educ Tecn (IDET)

IDET 5300  Instructional Design and Educational Technology Foundations
3 Semester Credit Hours (3 Lecture Hours)
Conceptual foundations of the field of Instructional Design and Educational Technology. Considers historical factors that contributed to the development of the field. Considers underlying systems concepts. Introduces major publications and professional organizations in the field. Includes a research project.

IDET 5302  Computer Applications in Education
3 Semester Credit Hours (3 Lecture Hours)
Introduces the uses of technology in classroom environments. Examines and practices technology integration within classroom environments, using various applications, instructional and productivity software, as well as evaluation tools and resources. Addresses development of integrated instructional activities and a collaborative final project related to selected instructional goals.

IDET 5303  Instructional Hypermedia
3 Semester Credit Hours (3 Lecture Hours)
Application of a variety of computing applications integral to effective hypermedia development. Study of hypermedia design research. Production of a series of hypermedia objects in audio, video, and graphic production, as well as a final project related to selected instructional goals.

IDET 5304  Instructional Design
3 Semester Credit Hours (3 Lecture Hours)
Provides an introduction to instructional design theory, principles, and techniques and related learning theories. Considers various instructional design models including the Instructional Systems Development Model. Includes development of a final instructional design project. While there is no prerequisite for this course it is recommended that IDET 5304 be completed first.

IDET 5305  Instructional Design Applications
3 Semester Credit Hours (3 Lecture Hours)
Specification of research-based instructional strategies for various categories of learning outcomes. Applied use of educational technologies to design and develop instructional materials that are consistent with research findings in the field.

IDET 5310  Internet Resources in Education and Training
3 Semester Credit Hours (3 Lecture Hours)
Surveys uses of Internet resources for instruction. Considers design standards and software tools for web development. Considers instructional strategies involving use of Internet resources to support learning.
IDET 5320 Project Based Learning and Related Strategies for Technology Integration
3 Semester Credit Hours (3 Lecture Hours)
A course designed to enable participants to thoughtfully plan for integration of computers and other media in instruction. Examines the Project-Based Learning Model to engage learners in projects requiring investigation, analysis, synthesis, and presentation in real-world situations. Considers a rationale for technology integration, learning theory, evaluation of interactive media, strategies for technology integration, and related student assessment.

IDET 5360 Design Strategies for Online Instruction and Learning Management Systems
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide educators with an overview of the instructional and programmatic factors that should be considered when designing, developing, and delivering an online course. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. This course considers the specific needs of online students as well as the pedagogical and technical skills necessary to succeed when teaching online. Aspects of course website usability and accessibility are also addressed.

IDET 5365 Instructional Materials Development for Learning Management Systems
3 Semester Credit Hours (3 Lecture Hours)
A course addressing research and best practices related to the development of instructional activities and materials for online instruction within a learning management system environment. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. Consistent with those standards, researches sound instructional strategies for promoting student success. Covers legal, ethical, and safe behavior related to technology use. Considers research on the development and delivery of assessments and assignments that meet standards-based learning goals. Reviews research on assessment and measurement of learning and use of data from assessment and other sources to formatively modify content.

IDET 5380 Educational Technology for Administrators
3 Semester Credit Hours (3 Lecture Hours)
This course serves the modern administrator regarding problems of use, selection, and management of administrative educational technology at the campus level.

IDET 5390 Professional Seminar
3 Semester Credit Hours
Contemporary issues in educational technology; topics vary with professional interests and needs of participants.

IDET 5396 Directed Individual Study
3 Semester Credit Hours

IDET 5397 Instructional Design and Educational Technology Practicum
3 Semester Credit Hours (3 Lecture Hours)
Students will design and assemble their IDET Masters journey professional portfolio and complete a service-based, on-the-job guided practice in the planning and use of educational technologies and instructional design skills within a program-approved learning environment.

IDET 5696 Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
May be repeated when topics vary.

IDET 6301 Foundations of Instructional Design
3 Semester Credit Hours
Explores theoretical, conceptual, technological and historical foundations of instructional design and educational technology. Examines the historical development of using technology for educational purposes. Includes intensive examination and application of contemporary learning theories and instructional design principles and processes related to use of technology in instructional environments.

IDET 6315 Project-Based Learning Types and Emerging Technologies
3 Semester Credit Hours
This course takes a deeper look regarding emerging technologies and research-based practices in project-based and related learning environments. Students will be invited into a project-based experiential process that includes a local service outlet. Extension of Web 2.0, web conferencing, audio, emerging technologies and pedagogical practices are explored and integrated into their research of their project. Students review research on project-based and related learning environments, critically analyze the research, and develop a related theoretically-based paper for submission to a professional publication or conference.

IDET 6345 Visual Literacy
3 Semester Credit Hours
This fully online course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Visual literacy is the ability to understand and use images, including the abilities to describe cultural and psychological meanings of images one encounters, as well as to think, learn, and express oneself with images. Instructional design and development skills learned will be based on theoretical and research issues related to visual literacy. Because the course is taught via the Web at a distance, learners will have to provide their own PowerPoint, graphics development, spreadsheets, and word processing software or use those provided in public spaces. Computer labs at TAMU-CC have the necessary software. Any work may be done in this class in collaboration with others from the class. Students are expected to work with others as much as time permits and are expected to learn from and teach each other about visual literacy. The course is available at http://Bb9.tamucc.edu.

IDET 6360 Design Strategies for Online Instruction and Learning Management Systems
3 Semester Credit Hours
Addresses concepts, structures, and design strategies for effective online instruction through exploration within a learning management system. Researches and develops experiential strategies for active learning, interaction, and collaboration. Considers student diversity, academic needs and accommodations, professional development, and online interactions. Also addresses arranging media and content within an LMS. Course content is consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxSVN) standards.
IDET 6365  Instructional Materials Development for Learning Management Systems
3 Semester Credit Hours
A course addressing research and best practices related to the development of instructional activities and materials for online instruction within a learning management system environment. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (InACOL) and Texas Virtual School Network (TvVSN) standards. Consistent with those standards, researches sound instructional strategies for promoting student success. Covers legal, ethical, and safe behavior related to technology use. Considers research on the development and delivery of assessments and assignments that meet standards-based learning goals. Reviews research on assessment and measurement of learning and use of data from assessment and other sources to formatively modify content.

IDET 6370  Online Course Design, Development, and Review
3 Semester Credit Hours
Participants in this project-based course must have access to a networked computer. Students learn how to create engaging instruction for online learners. The course is delivered as a workshop and field-based experience in which students create online instructional content in the Blackboard learning management system. Emphasis will be placed on application of learner-centered instructional strategies. Legal issues related to copyright and accessibility will be addressed. The course consists of 4 phases: First, students explore ways to design engaging learning experiences by applying learner-centered pedagogy to course design and development. Second, students learn how to support academic integrity and follow ADA and copyright guidelines in their online course designs. Third, students fully develop a highly interactive, engaging online course where an instructor has a lot of personal presence. Fourth, students learn how to evaluate a course for quality and review a peer's course design. Upon successful course completion students will receive a Professional Development and Continuity of Learning Certificate and a Certificate.

IDET 6375  Theoretical Foundations and Frameworks of Learning Environments
3 Semester Credit Hours
The course is available at http://Bb9.tamucc.edu. This blended course provides students, faculty, and instructional designers with a clear, concise introduction to the major pedagogical and psychological theories and their implications for the design of new learning environments for schools, universities, or corporations. Students analyze and explore a survey of the most important contemporary theories forming the foundational design of student-centered learning environments and the new applications of educational technologies. The major products of this course include three theoretical framework writing samples: a deconstructive analysis, a synthesized construction, and a proposed theoretical framework or model for a selected form of constructivist environment learning solution as a possible leading conference paper submission.

IDET 6380  Special Topics Course - Design and Development Research
3 Semester Credit Hours
The course is available at http://Bb9.tamucc.edu. This blended course acquaints learners with processes and products of design and development research. Students analyze and explore design-based research and other literature to identify a societal problem to address. They then design a potential educational solution. They describe methods to evaluate the impacts and effects of the potential solution. The product of the course is a research proposal as well as knowledge of research processes to be followed for future studies.

IDET 6390  Special Topics in Instructional Design and Educational Technology
3 Semester Credit Hours
Application of research regarding contemporary theoretical and applied issues in instructional design and educational technology. Topics vary with professional needs and interests and participants.

Interdisciplinary Studies (IDSY)
Kinesiology (KINE)

KINE 5306  Sport Nutrition
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide scientific evidence for the use of nutrient ingestion to enhance sport performance and maintain optimal health. Special emphasis will be placed on the chemical and biological changes caused by the ingestion of specific nutrients. In this course the student will learn to utilize current nutrition research to enhance the athlete's energy systems within various categories of sport.

KINE 5307  Research Design in Kinesiology
3 Semester Credit Hours (3 Lecture Hours)
The application of fundamental research methods to the design and development of a research proposal in kinesiology.

KINE 5308  Leadership in Kinesiology
3 Semester Credit Hours (3 Lecture Hours)
This course assists students in identifying and defining leadership in formal and non-formal kinesiology settings. The theoretical foundations interweaves: (a) formation of self-identification and self-awareness as a leader, (b) development of applied knowledge and skills, and (c) real-world application of effectively functioning as both a follower and a leader, thus developing a more complete and holistic leadership framework.

KINE 5311  Statistics in Kinesiology
3 Semester Credit Hours (3 Lecture Hours)
A study of basic statistical concepts and their application to research problems in kinesiology. Topics include issues related to descriptive and inferential statistics. Recommended
Prerequisite: KINE 4311.

KINE 5312  Sport Physiology
3 Semester Credit Hours (3 Lecture Hours)
This course expands basic undergraduate exercise physiology principles and focuses on the role of exercise physiology in sports performance, applied and research settings. Recommended

KINE 5313  Athletic Testing
3 Semester Credit Hours (3 Lecture Hours)
An advanced assessment course designed to provide techniques for physiological, athletic, and sport-specific tests associated with athletic performance. Test selection, test administration, data analysis, and appropriate evaluation techniques will be presented.

KINE 5314  Principles of Strength and Conditioning
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to provide theoretical and practical knowledge of the physiological, biomechanical, and administrative aspects of designing and supervising strength and conditioning programs for various populations.
KINE 5325  Program Design for Resistance Training
3 Semester Credit Hours (3 Lecture Hours)
This course presents information on the process of designing scientifically based resistance training programs, modifying and adapting programs to meet the needs of special populations, and understanding how designing programs works in the real world.

KINE 5327  Sport Biomechanics
3 Semester Credit Hours (3 Lecture Hours)
This course provides an exploration of movement kinetics and kinematics through the framework of sports, physical activity, and associated injury mechanisms. Further emphases will be on identifying viable research questions and appropriate methods (including instrumentation) to pursue those questions. Recommended

KINE 5330  Motor Development in Sport
3 Semester Credit Hours (3 Lecture Hours)
This course addresses the theory and application of human motor development as it relates to the acquisition of motor skills, with a focus on sport performance. The course emphasizes how professionals in the field of sport science should utilize this understanding to serve various client populations throughout the lifespan.

KINE 5340  Sport Psychology
3 Semester Credit Hours (3 Lecture Hours)
A study of the theory and application of psychology as it applies to human behavior in sport and physical activity.

KINE 5394  Professional Field Experience
3 Semester Credit Hours
A graduate-level field-based experience to provide the student the opportunity to apply knowledge and theory related to exercise and sport science. This course is an elective course and listed in the Supplemental Course section of the degree plan. This course may also be taken at any time during the student’s degree with approval of their faculty mentor.

KINE 5397  Graduate Research Project in Kinesiology
1-3 Semester Credit Hours (1-3 Lecture Hours)
The research project is an alternative to the thesis and three semester hours of credit. The project should be completed in one semester of work with the possibility of more time depending upon the student’s topic and design. This is an involved process and the final product includes: 1) Journal Abstract; 2) Journal Manuscript (choice of journal is decided by project chair); 3) Poster Presentation; and 4) Power Point Presentation (Defense). Unlike the thesis, all students that are fully accepted to the program automatically are eligible for the research project.
Prerequisite: KINE 5307 and 5311.

KINE 5600  Professional Seminar
1-6 Semester Credit Hours (1-6 Lecture Hours)
PROFESSIONAL SEMINAR Contemporary issues in Kinesiology topics vary with professional identification of participants.

KINE 5690  Directed individual Study
1-6 Semester Credit Hours
Thesis in progress requires departmental approval. Investigative study on selected problems by students with particular needs. May be repeated when topics vary.

KINE 5698  Thesis in Progress
3-6 Semester Credit Hours (3-6 Lecture Hours)
Students are required to successfully complete a thesis under the direction and supervision of their thesis chair and committee members. The thesis will require a minimum of two semesters of work and possibly more depending upon their topic and design, thus students will be allowed to register for three hours each semester. The thesis option is designed for students that want to gain extensive experience in research and/or greater knowledge about a specific topic area. It is also designed for those that anticipate more advanced research (e.g., Ph.D.). Upon completion of their work there is a thesis defense. The final product includes: 1) Journal Abstract; 2) Journal Manuscript (choice of journal is decided by thesis chair); 3) Poster Presentation; and 4) Power Point Presentation (Defense).
Prerequisite: KINE 5307 and 5311.

Management (MGMT)

MGMT 5310  Organizational Behavior and Communication
3 Semester Credit Hours (3 Lecture Hours)
Introduction to essential management and communication functions within the business firm and its environment. Topics include basic principles of organization behavior and management, the process of research, communication and management decision making, and issues in the global business environment.

MGMT 5320  Organizational Behavior and Theory
3 Semester Credit Hours (3 Lecture Hours)
The study of individual, group, and intergroup behavior within organizations. Issues discussed include personality differences, power, politics, interpersonal relations, conflict management, work environment, satisfaction, performance, and team building.
Prerequisite: MGMT 5310.

MGMT 5330  Leadership
3 Semester Credit Hours (3 Lecture Hours)
This course provides a rich in-depth review of traditional as well as current theories in Leadership. Students will complete self-assessment exercises designed to assess their leadership style and ability as a leader. This course will drill future leaders in a variety of lessons in leadership from which they can develop and grow, as well as lessons of bad leadership illustrating what to avoid.

MGMT 5335  Multinational Management
3 Semester Credit Hours (3 Lecture Hours)
A study of the values, relationships, social structures and cultural differences that affect the application of management processes in different international environments. Attempts are made to distinguish problems that stem from organizational goals and those due to cultural factors.
Prerequisite: MGMT 5310.

MGMT 5345  Business, Government, and Society
3 Semester Credit Hours (3 Lecture Hours)
An analysis of business, government, and society interaction and how these relationships affect outcomes and stakeholders in varying contexts. Contemporary business issues are examined in terms of how major social changes impact organizations. Corporate social responsibility and ethical conduct in business are given particular attention.
MGMT 5350 Entrepreneurship
3 Semester Credit Hours (3 Lecture Hours)
An analysis of the organization and operation systems appropriate to owner-operated business firms. Business functions are examined with particular attention given to establishing and operating the firm.

MGMT 5355 Administrative Strategy and Policy
3 Semester Credit Hours (3 Lecture Hours)
An analysis of strategic decision making, policy, and strategy. Focus is on the integrative and multi-functional nature of organizational strategy decision. Intensive analysis of the influence of administrative decisions on organizational outcomes.

MGMT 5360 Human Resource Management
3 Semester Credit Hours (3 Lecture Hours)
An analysis and critique of concepts, theories and practices in human resource management, including employment planning, selection and placement, training and development, compensation systems, and performance appraisals.

MGMT 5370 Seminar
1-3 Semester Credit Hours
in an identified topic in management. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

MGMT 5396 Directed individual Research Or Readings
1-3 Semester Credit Hours
Contact Director of Master’s Programs.

Management Information Systems (MISY)

MISY 5325 Software Based Business Solutions
3 Semester Credit Hours (3 Lecture Hours)
Study of computer-based technologies for facilitating the analysis and evaluation of business problems. Provides the student with a case-driven analysis of evaluating and selecting the appropriate software tool to match the required management application. Software coverage may include a variety of available packages, such as word processing, spreadsheets, databases, ftp, e-mail, and electronic presentation.
Prerequisite: MISY 2305.

MISY 5330 Website Development for E-Commerce
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the principles and techniques for client-side development using HTML, XHTML and CSS. Text editors and the software tools such as Dreamweaver will be used. This course includes designing for web standard, accessibility, usability, and workflow for web design.

MISY 5335 Business Data Base Management
3 Semester Credit Hours (3 Lecture Hours)
Concepts and methodology of data base planning, design, development, and management of the computerized data base for business-oriented applications. The logical models of hierarchical and network data bases are presented, but the emphasis is on the relational data base model. Exercises and assignments will be completed utilizing a relational DBMS package.
Prerequisite: MISY 2305.

MISY 5340 Electronic Commerce
3 Semester Credit Hours (3 Lecture Hours)
A study of the concepts of doing business via the Internet. General topics include electronic commerce history, opportunities, limitations, and risks. Technical discussions include the Internet, intranets, extranets, electronic payment systems, firewalls, security, protocols, servers, browsers, and ethics.
Prerequisite: MISY 2305.

MISY 5345 Business Data Communication Systems
3 Semester Credit Hours (3 Lecture Hours)
Characteristics of contemporary business data communication components, their configurations, and their impact on business-oriented applications. Includes the design, implementation and operation of peer-to-peer, and client-server network systems for organizational Intranets and Internet presence. Exercises and assignments will be completed using selected data communications facilities.

MISY 5350 Managing the Information Systems Function
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the role of information systems in businesses today. The focus of the course will be on management issues related to information systems. Major topics that will be covered include e-commerce, data management, networks, and management information systems.

MISY 5355 Business Intelligence and Analytics
3 Semester Credit Hours (3 Lecture Hours)
Overview of important concepts of business intelligence, and the use of analytics, technologies, applications and processes used by organizations to gain data-driven insights. These insights and predictions can be used to aid decision-making and performance management across functional areas, including marketing, operations, and finance. Students will learn to extract and manipulate data, and create reports, scorecards and dashboards, including mobile apps.

MISY 5356 Systems Analysis and Design
3 Semester Credit Hours (3 Lecture Hours)
This course develops the student’s ability to analyze and manage an existing information system within an organization, to identify information requirements, and to specify the functions of a new information system. Include cost/benefit analysis of proposed information systems. Exercises and assignments will develop the student’s systems analysis and design skills.

MISY 5360 Business Application Development
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the Visual Basic programming environment in the context of business application design and development. This course will place emphasis on performance characteristics and user interface design considerations.

MISY 5365 Enterprise Resource Planning
3 Semester Credit Hours (3 Lecture Hours)
A study of the management of information technology as it is practiced in organizations today. Traditional organizations are moving toward a more interconnected or networked business environment. A major focus is understanding the role and use of complex technology in the support of individual, workgroup, enterprise, inter-enterprise and international computing. This course will utilize a business process management approach through the use of enterprise software.
MISY 5366 Data Warehousing and Data Mining for Business Intelligence
3 Semester Credit Hours (3 Lecture Hours)
In the information age, organizations can and do collect massive amounts of data. Yet organizations are often "data rich" but "information and knowledge poor." This course is designed to prepare business professionals who, by using analytical methods and data mining and data visualizations tools, will be able to harness the potential of data by extracting business intelligence that can be used to improve decisions and operations at various points in the value chain. 
Prerequisite: MISY 5325, 5335 and ORMS 5310.

MISY 5367 Managing IT Projects
3 Semester Credit Hours (3 Lecture Hours)
This course covers issues related to managing projects in organizations. The course focuses on the management of projects and working as a team. Students are expected to draw on materials from other management information system courses, especially the Systems Analysis and Design, and Database Management courses.
Prerequisite: MISY 5335.

MISY 5370 Seminar
1-3 Semester Credit Hours
in an identified topic in management information systems. May be repeated for significantly different topics with written permission from the Director of Master's Programs.

MISY 5396 Directed individual Research Or Readings
1-3 Semester Credit Hours
Contact Director of Master's Programs.

Mariculture (MARI)

Mariculture (MARI)

Marine Biology (MARB)

MARB 689 Special Topics
4 Semester Credit Hours (3 Lecture Hours)

MARB 5293 Thesis Research
2 Semester Credit Hours
Implementation of the Thesis Proposal and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll.
Prerequisite: MARB 5292.

MARB 5392 Thesis Proposal
3 Semester Credit Hours
Thesis students must submit a completed proposal for their thesis project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for MARB 5393 - Thesis Research. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

MARB 5393 Thesis Research
3 Semester Credit Hours
Implementation of the Thesis Proposal, and the production of a rough draft of the thesis submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: MARB 5392.

MARB 5394 Thesis Submission
3 Semester Credit Hours
Completion of the final draft of the thesis, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: (MARB 5392 and 5393*).

* May be taken concurrently.

MARB 5397 Directed Research
3 Semester Credit Hours
Emphasis on experimental design as related to selected biological topics. Application of research skills. For M.S. students selecting the non-thesis option. Students may register for up to 9 semester hours, but only 3 semester hours will count towards a non-thesis degree. Directed Research is only open to M.S. students. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.

MARB 5940 Master's Project Research
1-9 Semester Credit Hours
Research related to the M.S. project. Open only to M.S. students in marine biology with consent of the graduate advisor. Does not count as credit toward regular graded (non-research, non-variable credit) coursework for M.S. degree requirement in marine biology.

MARB 6310 Physiological Adaptations in Animals
3 Semester Credit Hours (3 Lecture Hours)
A study of the physiological adaptations of animals to their environment, including osmoregulatory and temperature regulatory mechanisms.
Prerequisite: BIOL 3430.

MARB 6312 Communicating Science Seminar
3 Semester Credit Hours (3 Lecture Hours)
Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.

MARB 6314 Aquatic Animal Nutrition
3 Semester Credit Hours (3 Lecture Hours)
The study of current concepts in aquatic animal nutrition including nutrient sources and requirements, deficiency effects, ingestive/digestive/metabolic processes, formulation and processing of feeds, and practical feeding considerations for selected aquatic species.
MARB 6327 Marine Restoration Ecology
3 Semester Credit Hours (3 Lecture Hours)
Overview of the rapidly expanding practice of restoring degraded marine, estuarine, and coastal ecosystems. Teaching methods will include lectures, discussion, paper critiques, field visits, and restoration plans. Course will explore ecological theory as it applies to restoration, restoration planning and implementation strategies, and controversies surrounding the practice of restoration.

MARB 6333 Marine Benthic Ecology
3 Semester Credit Hours (3 Lecture Hours)
The ecology of benthic assemblages with emphasis on species and habitats below diver depths. Micro to mesoscale spatial patterns, including bathymetric distribution, abundance and size-structure, diversity gradients, energetics and feeding strategies, and zoogeography of the benthos will be covered. Hydrothermal vents, cold seeps and sea mount fauna will receive special attention.

MARB 6335 Aquatic Microbiology
3 Semester Credit Hours (3 Lecture Hours)
Types and distribution of microorganisms in aquatic environments. Interactions with other organisms. Role in nutrient cycling, degradation of organic substances, pollution, water purification.
Prerequisite: BIOL 2420.

MARB 6340 Marine Organisms and Processes
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the biology of major plant and animal groups in the ocean. Students will also learn about important physical and chemical features of the oceans, and how these interact with marine life to regulate marine ecosystem function.

MARB 6341 Evolution and Genomics of Marine Organisms
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the evolutionary history of life in the ocean. Students will also learn about modern evolutionary theory, processes of speciation and processes which create diversity and adaptive capacity within species. Finally, the course will touch on functional genetics and the use of modern molecular techniques to understand organismal evolution and function.

MARB 6342 Genomics, Proteomics and Bioinformatics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to integrative biological study using genome-wide approaches and bioinformatics. The “-omics” technologies (Genomics, Proteomics, Metabolomics, etc.) will be surveyed for current and potential contributions to understanding biological function at molecular, cellular, organismal and ecosystem levels. Offered in Fall semester of odd-years only. Cross listed with BIOL 5340.

MARB 6343 Oceans and Human Health
3 Semester Credit Hours (3 Lecture Hours)
Oceans are increasingly recognized for their role in the health of the human population, both as a source of waterborne disease and a source of new bioactive (medicinal) agents. Indeed, healthy oceans are essential to the habitability of our planet -- for humans and all other forms of life. Students will explore links between oceans, pollution, human well-being, ecosystem services, resource management, and the science and legislation governing the enforcement of water quality standards. This multidisciplinary subject will be addressed using a combination of lecture and discussion of primary literature. Offered in Fall semester of even-years only.

MARB 6353 Down the River: Ecology of Gulf Coast Fishes
3 Semester Credit Hours (3 Lecture Hours)
This course covers aspects of ecology and biogeography of riverine and estuarine fishes while exposing students to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike.
Co-requisite: SMTE 0091.

MARB 6362 Global Change and Its Impact on Aquatic Ecosystems
3 Semester Credit Hours (3 Lecture Hours)
This course will introduce students to the effects of climatic and anthropogenic change on aquatic ecosystem structure and function. Includes readings from the current literature and development of a research proposal. Cross-listed with CMSS 6362.

MARB 6363 Geomicrobiology
3 Semester Credit Hours (3 Lecture Hours)
An exploration of the interface between geological and biological processes focused on the mutual effects of microorganisms and Earth's chemistry. Topics include biominerlization, origin and evolution of life, microbial weathering and rock formation, and influences on environmental problems.

MARB 6371 Evolutionary Genetics
3 Semester Credit Hours (3 Lecture Hours)
An advanced introduction to evolutionary processes and their genetic basis, focusing on theoretical and experimental approaches to the study of population genetics, phylogeography, coalescence theory, evolutionary ecology, and molecular evolution.
Prerequisite: BIOL 2416.

MARB 6373 Marine Biodiversity and Conservation Science
3 Semester Credit Hours (3 Lecture Hours)
Biodiversity, including genetic diversity of individual populations to ecosystem diversity, will be addressed, with focus on the marine realm. Methods for assessing and quantifying diversity will be included. Threats to biodiversity, including resource extraction, invasive species, habitat alteration, global warming and ocean acidification, will be covered, as will techniques for recovering and restoring damaged ecosystems. Marine ecosystem management will be discussed, including marine protected areas, and state, federal and international fisheries and resource management issues.

MARB 6392 Dissertation Proposal
3 Semester Credit Hours
Ph.D. students must submit a completed proposal for their dissertation project. A course section will be created for the student to enroll. Upon successful completion and submission of the proposal signed by the graduate committee of the student, students may then register for MARB 6393 - Dissertation Research. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
MARB 6393  Dissertation Research
3 Semester Credit Hours
Implementation of the Dissertation Proposal, and the production of a rough draft of the dissertation submitted to the graduate committee of the student for initial editing and comment. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: MARB 6392.

MARB 6394  Dissertation Submission
3 Semester Credit Hours
Completion of the final draft of the dissertation, signed by the graduate committee of the student and ready for binding and distribution. A course section will be created for the student to enroll. If course is not completed by end of the semester, a grade of "IP" will be awarded. An "IP" is a permanent, non-punitive, grade notation. In order to receive a qualitative grade the student must enroll in this course in a subsequent semester.
Prerequisite: MARB 6392 and (MARB 6393 or 6393*).
* May be taken concurrently.

MARB 6408  Microbial Ecology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Relationships between microorganisms and their biotic and abiotic environments. Role of microorganisms in biogeochemical cycling. Methodology in microbial ecology. Biotechnological aspects.
Co-requisite: SMTE 0092.

MARB 6428  Fisheries Ecology
4 Semester Credit Hours (4 Lecture Hours)
FISHERIES ECOLOGY Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project. The laboratory will emphasize practical sampling design and data interpretation. SMTE 0091 is a co-requisite for this course. Documented completion of this safety training is required early in the semester for continued participation in this course.

MARB 6430  Marine Plankton
4 Semester Credit Hours (4 Lecture Hours)
Investigation of the systematics, distribution and ecology of marine plankton. Cross listed with BIOL 5430.
Co-requisite: SMTE 0091.

MARB 6431  Phycology
4 Semester Credit Hours (4 Lecture Hours)
Study of the major groups of freshwater and marine algae; morphology, ecology, systematics, life cycles and physiology. Laboratories emphasize collection, identification and culturing techniques.
Co-requisite: SMTE 0092.

MARB 6436  Marine Ecology
4 Semester Credit Hours (4 Lecture Hours)
Advanced studies in structure and habitats of marine environments. Emphasis on factors influencing distribution of marine organisms, including field trips to areas along the Texas coast.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

MARB 6452  Ecology and Evolution of Fishes
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
This course covers aspects of fish ecology from individual, population, community, and ecosystem levels. We discuss the role of the environment on fish physiology and behavior, food-web dynamics, community assembly and diversity, ecosystem interactions, and anthropogenic impacts on fishes with a focus on conservation.
Co-requisite: SMTE 0091.

MARB 6590  Special Topics
5 Semester Credit Hours (5 Lecture Hours)
An advanced study of a biological topic. May be repeated with full credit in another area of marine biology.
Prerequisite: SMTE 0091*, 0092*, or 0093*.
* May be taken concurrently.

MARB 6596  Directed Independent Study
1-5 Semester Credit Hours (1-5 Lecture Hours)
Study in areas of current interest. A total of six semester hours of Directed Independent Study may be counted towards the M.S. or Ph.D. degree.

MARB 6940  Dissertation Project Research
1-9 Semester Credit Hours
Research related to the dissertation project. Open only to Ph.D. students in Marine Biology with consent of the graduate advisor. Does not count as credit toward regular graded (non-research, non-variable credit) coursework for Ph.D. degree requirement in Marine Biology.

Marketing (MKTG)

MKTG 5311  Marketing Concepts
3 Semester Credit Hours (3 Lecture Hours)
An examination of basic marketing activities involved in the flow of goods, services, and ideas from producer to consumer or industrial user. A managerial emphasis designed for students with limited or no academic experience in marketing.

MKTG 5320  Marketing Management
3 Semester Credit Hours (3 Lecture Hours)
An advanced study of contemporary marketing management concepts, tools of analysis, and implementation of marketing programs.
Prerequisite: MKTG 5311.

MKTG 5330  Social Media Marketing
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the cutting edge social media tools necessary to perform effectively as marketing professionals. Topic coverage includes the understanding of social media unique structure, emerging segmentation and positioning practices, as well as evaluation and implementation of a social media marketing strategy.

MKTG 5335  Marketing in the International Environment
3 Semester Credit Hours (3 Lecture Hours)
A study of the environment within which a firm operating outside the U.S. considers the political, social, and economic variables that impact marketing decisions.
Prerequisite: MKTG 5311.
MKTG 5360 Research in Marketing
3 Semester Credit Hours (3 Lecture Hours)
An overview of the area of marketing research. A managerial orientation is used stressing such topics as the informational needs of marketing managers, the application of research in marketing management, decision models and concepts, and research concepts and data analysis methodology.
Prerequisite: MKTG 5320.

MKTG 5370 Seminar
1-3 Semester Credit Hours
in an identified topic in marketing. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

MKTG 5396 Directed individual Research or Readings
1-3 Semester Credit Hours
Contact Director of Master’s Programs.

Mathematics (MATH)

MATH 5310 Topics in Mathematics
3 Semester Credit Hours (3 Lecture Hours)
May not be used for graduate credit towards the MS in mathematics. Course included to provide a suitable vehicle for anticipated future service courses.

MATH 5315 Statistical Methods in Research I
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
STATISTICAL METHODS IN RESEARCH I This course is for graduate students in other disciplines and is designed to prepare them to use statistical methods in their research. This is a non-calculus exposition of the concepts, methods and usage of statistical data collection and analysis. Topics include descriptive statistics, the t-test, the one and two-way analysis of variance, multiple comparison tests, and multiple regression. Students also learn how to conduct these analyses using computer software and how to properly report their findings.

MATH 5316 Statistical Methods in Research II
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
STATISTICAL METHODS IN RESEARCH II This course is a continuation of MATH 5315. Topics include: statistical experimental design, randomized blocks and factorial analysis, multiple regression, chi-squared tests, analysis of covariance, non-parametric methods and sample surveys. Emphasis will be placed on the computer analysis of research data and how to properly report statistical findings.
Prerequisite: MATH 5315.

MATH 5321 Problem Solving and Mathematical Reasoning for Teachers
3 Semester Credit Hours (3 Lecture Hours)
An investigation of problems that span a variety of domains with a focus on making and evaluating mathematical arguments, using tools such as manipulatives and technology, identifying and analyzing the connections within and outside of mathematics, and using symbols and representations to communicate mathematical ideas.

MATH 5322 Mathematics Assessment
3 Semester Credit Hours (3 Lecture Hours)
A historical overview of assessment of mathematics, statistical description of norm- and criterion-reference tests, scaling of standardized exams, varieties of assessment and rubrics, the mathematical analysis of error patterns, and equity.

MATH 5323 Mathematics instruction and Mentoring
3 Semester Credit Hours (3 Lecture Hours)
A study of how the use of appropriate mathematical content can create and support a mathematics classroom environment in which students are engaged in mathematical problem solving and how to use these understandings to be effective in supporting teacher development.

MATH 5324 Principles of Reforming Mathematics Instruction
3 Semester Credit Hours (3 Lecture Hours)
This course introduces participants to the theory and practice of teacher-led inquiry within mathematics education. The course prepares teachers to engage in a school-based mathematics education action research project. It is intended for in-service mathematics teachers.

MATH 5325 Structure of Number Concepts
3 Semester Credit Hours (3 Lecture Hours)
An in-depth investigation of real and complex number systems, base ten and other number bases, operations and algorithms, divisibility, Euclidean algorithm, congruence, modular arithmetic, and the Fundamental Theorem of Arithmetic, with an emphasis on quantitative and qualitative reasoning.

MATH 5326 Structure of Patterns and Algebra
3 Semester Credit Hours (3 Lecture Hours)
Algebraic reasoning incorporating the use of technology. This course includes investigations of patterns, relations, functions, and analysis, with a focus on representations and the relationships among them.

MATH 5327 Structure of Geometry and Measurement
3 Semester Credit Hours (3 Lecture Hours)
An investigation of concepts and principles in geometry and measurement with emphases on deductive reasoning and on inductive reasoning with the use of dynamic geometry software.

MATH 5328 Structure of Probability and Statistics
3 Semester Credit Hours (3 Lecture Hours)
An investigation of the principles and applications of probability and descriptive and inferential statistics.

MATH 5329 Structure of Modeling with Rates of Change
3 Semester Credit Hours (3 Lecture Hours)
A study of rates of change through modeling. Direct applications of rates of change to number concepts, algebra, geometry, probability, and statistics.

MATH 5331 Evolution of Mathematical Systems
3 Semester Credit Hours (3 Lecture Hours)
Covers the evolution of mathematical concepts and thought from ancient to modern times, including women and men who played key roles, from original and secondary sources. Provides a better understanding of the historical development of larger context for topics studied in other courses, and deepens understanding and appreciation of these topics. This course is intended to benefit current and future mathematics teachers.
Prerequisite: MATH 5321.

MATH 5332 Integrating Technology in Mathematics Education
3 Semester Credit Hours (3 Lecture Hours)
An introduction to technology appropriate for the mathematics classroom, including calculators, CAS systems, handhelds, computer software and multimedia. This course is intended for in-service mathematics teachers at the middle/high school level.
Prerequisite: MATH 5321.
MATH 5333 Numerical Linear Algebra
3 Semester Credit Hours (3 Lecture Hours)
Direct methods for linear systems. Least square solutions. Symmetric
Prerequisite: MATH 3311.

MATH 5336 Advanced Differential Equations
3 Semester Credit Hours (3 Lecture Hours)
A continuation of MATH 3315, Differential Equations. Relying heavily
on linear algebra concepts, this course covers linear systems of differential
equations; introductory operator theory; existence, uniqueness and
continuity of solutions; stability of equilibria; planar nonlinear systems;
and the Poincaré-Bendixson Theorem. Several applications are covered to
illustrate the mathematical concepts.
Prerequisite: MATH 3311 and 3315.

MATH 5337 Theory and Applications of Partial Differential Equations
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to study the mathematical theory and real-
world applications of the three major categories of partial differential
equations: elliptic equations, parabolic equations, and hyperbolic
equations. Specific topics to be covered include: first-order equations,
second-order elliptic equations, second-order parabolic equations, and
second-order hyperbolic equations.
Prerequisite: MATH 3311, 3315, 4301 and 4315.

MATH 5339 Numerical Analysis
3 Semester Credit Hours (3 Lecture Hours)
Numerical differentiation and integration. Finite differences and finite
elements. Numerical methods for ODE’s and PDE’s.
Prerequisite: MATH 3311, 3315, 3470 and 4315 and (COSC 5311 or 1435).

MATH 5341 Statistical Methods and Data Analysis
3 Semester Credit Hours (3 Lecture Hours)
Introduction to the basic concepts of probability, common distributions,
statistical methods, data analysis and a wide variety of statistical
inference techniques. Demonstrations of the interplay between
probability models and statistical inference. Data sets will be analyzed
using the R software package.
Prerequisite: (MATH 3342 or 3345).

MATH 5342 Linear Statistical Models
3 Semester Credit Hours (3 Lecture Hours)
Review of basic concepts in probability theory. Principles of estimation
and model building. Linear models, especially ANOVA and regression.
Non-parametric alternatives.
Prerequisite: MATH 3311, 3342 and 3470.

MATH 5343 Mathematical Theory of Statistics
3 Semester Credit Hours (3 Lecture Hours)
This course is intended for graduate students that need a solid
background on statistical theory. This is a one-semester course in
probability and mathematical statistics. Topics include: basic probability,
random variables, transformations and expectations, distributions
and important families thereof, multiple random variables, random
samples, notions of convergence, and an overview of point estimates and
hypothesis tests.
Prerequisite: MATH 3311, 3342 and 3470.

MATH 5344 Environmental Statistics
3 Semester Credit Hours (3 Lecture Hours)
SPATIAL STATISTICS An introduction to methods of spatial statistics
commonly used in scientific settings. Topics include the nature of
geospatial sampling, analysis and modeling of spatial point patterns,
and development and analysis of common continuous spatial models
such as kriging. Additional topics to be covered, as time and student
interest permit, include Bayesian modeling, hierarchical environmental
modeling, and spatiotemporal modeling. Use of appropriate software is
emphasized.
Prerequisite: MATH 3342 or 5315.

MATH 5345 Computational Methods for Statistics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to computing tools needed by the modern statistician.
Topics include: floating point numbers, reformatting large datasets,
important statistical algorithms, and parallel processing.

MATH 5348 Optimization
3 Semester Credit Hours (3 Lecture Hours)
Unconstrained optimization, necessary and sufficient conditions for
solutions, basic algorithms. Constrained optimization, KKT conditions,
linear programming, convex programming, algorithms.
Prerequisite: MATH 4301.

MATH 5351 Real Analysis
3 Semester Credit Hours (3 Lecture Hours)
This course includes such topics as sequences and series of constants
and functions, the Riemann integral, Fourier Series, and an introduction to
Lebesgue measure and integration.
Prerequisite: MATH 4301.

MATH 5360 Combinatorics and Graph Theory
3 Semester Credit Hours (3 Lecture Hours)
Topics to include basic counting rules, connectivity, graph coloring and
applications, chromatic polynomials, trees and their applications to
searching and sorting, generating functions, recurrence relations, the
Pigeonhole Principle, Eulerian and Hamiltonian chains and paths, and
applications.
Prerequisite: MATH 2305 and 3313.

MATH 5370 Modeling of Natural Systems
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to expose science and technology majors to
models of real problems arising in the environment and ecology. Students
will learn how to create solvable models of the real world situations
and how to find answers on the posted questions by using tools of
mathematics and computing. There will be modeling and simulations
of tides in the Gulf of Mexico, multi-species models of the food chains,
circulation of carbon, water, and oxygen. Students will learn some new
tools based on calculus and elementary statistics such as numerical
algorithms, Monte-Carlo methods, Markov Processes, multivariate
analysis, evaluation of stability, methods of extrapolation (predictions)
and interpolations.
Prerequisite: (MATH 1442 or 2342) and (MATH 2413 or 5329).

MATH 5375 Applied Analysis
3 Semester Credit Hours (3 Lecture Hours)
Topics to include basic theory of Euclidean, Banach and Hilbert spaces,
calculus of variations and optimal control, elements of system analysis,
and elements of complex analysis. All theoretical topics will be illustrated
by real application.
Prerequisite: MATH 4301 or 5351.
MATH 5378 Mathematical Modeling
3 Semester Credit Hours (3 Lecture Hours)
Modeling of applied problems using analytical, stochastic, and dynamical methods.

MATH 5390 Special Topics
1-3 Semester Credit Hours (1-3 Lecture Hours)
An advanced study of a mathematical topic. May be repeated with full credit in another area of mathematics. Topics vary by semester and offering.

MATH 5393 Literature Review and Research
3 Semester Credit Hours (3 Lecture Hours)
LITERATURE REVIEW AND RESEARCH METHODOLOGY Reading, analyzing, and synthesizing mathematics education research literature for the purpose of informing teaching practice. Includes a study of qualitative research with a focus on the components of a research study (research question(s), literature review, conceptual framework, methods, analysis, findings) and the relationships among them.

MATH 5394 Research Methods in Mathematics
1-3 Semester Credit Hours
RESEARCH METHODS IN MATHEMATICS This course develops an ability to independently investigate a technical topic of interest, and the skills necessary to successfully communicate on that topic. The student learns how to find, organize, assimilate, and report on technical information derived from published sources. Specific areas of study include literature searches, technical word processing, technical writing style, and oral presentation techniques. The instructor and selected additional faculty members review and critique oral and written reports submitted throughout the semester. A final paper and a formal presentation are submitted in lieu of a final exam in the final semester. This course is a co-requisite for all other courses (except thesis) taken by students in the Environmental Modeling option.

MATH 5396 Directed independent Study
3 Semester Credit Hours
Study in areas of current interest. See College description for further details.

MATH 5993 Literature Review and Research
1-9 Semester Credit Hours
Reading, analyzing, and synthesizing appropriate mathematics and/or mathematics education research literature under supervision. May be repeated for credit.

MATH 5994 Proposal Research
1-9 Semester Credit Hours
This course develops an ability to independently investigate a technical topic of interest, and the skills necessary to successfully communicate on that topic. The student learns how to find, organize, assimilate, and report on technical information derived from published sources. Specific areas of study include literature searches, technical word processing, technical writing style, and oral presentation techniques. A final paper and a formal presentation are submitted in lieu of a final exam in the final semester.

MATH 5995 Thesis
1-9 Semester Credit Hours
Students work with an advisor to complete and present their proposed thesis. Students may register for 3 to 9 semester hours per semester. Only 3 hours total will count toward the MS degree in mathematics.
Prerequisite: MATH 5994.

MATH 5997 Project
1-9 Semester Credit Hours
Students work with an advisor to complete and present their proposed research project. Students may register for 3 to 9 semester hours of directed research per semester. Only 3 hours total will count toward the MS degree in mathematics.
Prerequisite: MATH 5994.

MATH 6315 Statistical Methods in Research I
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
This course is for graduate students in other disciplines and is designed to prepare them to use statistical methods in their research. This is a non-calculus exposition of the concepts, methods and usage of statistical data collection and analysis. Topics include descriptive statistics, the t-test, the one and two-way analysis of variance, multiple comparison tests, and multiple regression. Students also learn how to conduct these analyses using computer software and how to properly report their findings.
Prerequisite: MATH 1442 or 3342.

MATH 6316 Statistical Methods Research II
3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
This course is a continuation of MATH 6315. Topics include: statistical experimental design, randomized blocks and factorial analysis, multiple regression, chi-squared tests, analysis of covariance, non-parametric methods and sample surveys. Emphasis will be placed on the computer analysis of research data and how to properly report statistical findings.
Prerequisite: MATH 6315.

MATH 6317 Mixed Effects Models for Scientists
3 Semester Credit Hours (3 Lecture Hours)
This course will deal with extensions to the regression and ANOVA that are frequently useful in dealing with ecological data. Topics include: using bootstrapping for significance testing; generalized additive models; using generalized least squares to deal with non-homogeneous data; working with fixed and random factors; handling temporally correlated and spatially correlated data; and the generalized linear model (Poisson, logistic, and negative binomial regression).
Prerequisite: MATH 6315 or 6316.

MATH 6318 An Introduction to Bayesian Statistics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to Bayesian Statistics for scientists. Topics include: Bayesian paradigm, with advantages and disadvantages; brief coverage of probability and calculus; basics of Markov Chain Monte Carlo methods, including the Gibbs sampler and the Metropolis-Hastings algorithm; validating, comparing, and interpreting Bayesian models; and examples from literature relevant to students interests. The course assumes no prior exposure to calculus or programming.

MATH 6344 Spatial Statistics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to methods of spatial statistics commonly used in scientific settings. Topics include the nature of geospatial sampling, analysis and modeling of spatial point patterns, and development and analysis of common continuous spatial models such as kriging. Additional topics to be covered, as time and student interest permit, include Bayesian modeling, hierarchical environmental modeling, and spatiotemporal modeling. Use of appropriate software is emphasized.
Prerequisite: MATH 3342 or 5315.
Nursing (NURS)

NURS 5163 Project Management for Nurse Leaders (1)
1 Semester Credit Hour (1 Lecture Hour)
An overview of project management techniques and tools as they apply to health care operations, projects and programs. The basics of a sound action plan will be introduced and will include identifying tasks, relevant relationships, and resources. This course will be taken in conjunction with NURS 5469 Patterns of Care Delivery Course.
Prerequisite: NURS 5310, 5314, 5315, 5316, 5261, 5362, 5364, 5320, 5360, 5365 and HCAD 5330.

NURS 5261 Human Capital Management (2)
2 Semester Credit Hours (2 Lecture Hours)
Students will explore internal and external issues influencing organizational decisions and policies affecting human capital. Critical human capital functions will be addressed to provide a solid understanding of the many issues confronting the nurse leader.

NURS 5310 Science in Nursing
3 Semester Credit Hours (3 Lecture Hours)
Exploration of the historical development and rationale of nursing theory. Examination of selected theories and conceptual frameworks, and their relationship to nursing practice and research. Emphasis is on the utilization of theories and models in nursing as a basis for a practice that provides a caring, comprehensive, and holistic approach to health care within a transcultural society. This course is delivered through online technology.

NURS 5314 Research Methods in Advanced Nursing Practice
3 Semester Credit Hours (3 Lecture Hours)
Critical examination of research methods in order to advance and integrate evidence into nursing practice and improve patient population outcomes. Particular attention is given to research appraisal and application, and the ethical aspects of research translation. This course is delivered through online technology.

NURS 5315 Health Policy and Cultural Diversity
3 Semester Credit Hours (3 Lecture Hours)
Health policy and cultural diversity are studied to provide foundations for meeting the needs of communities and societies. Current and proposed policies that influence contemporary health delivery are analyzed. This course is delivered through online technology.

NURS 5316 Introduction to Advanced Practice Role Development
3 Semester Credit Hours (3 Lecture Hours)
The course focuses on the development of knowledge and skills necessary for advanced practice. This includes, but is not limited to, negotiation, collaboration, crisis intervention, peer review, leadership, ethics, accountability and basic finances in advanced practice. Parameters of practice within various health care systems are integrated. This course is delivered through online technology.

NURS 5322 Advanced Pharmacological Concepts
3 Semester Credit Hours (3 Lecture Hours)
Study of pharmacotherapeutics across the life span with emphasis on clinical decision-making. Laws governing Advanced Practice Registered Nurses' prescriptive privileges are included when appropriate. Discussion is based on current literature, research findings and case studies. This course is delivered through online technology.
Prerequisite: NURS 5326 or 5326.

NURS 5323 Finance for the Nurse Practitioner
3 Semester Credit Hours (3 Lecture Hours)
Study of fiscal aspects of private practice, when to seek the services of a lawyer, analysis of and monitoring the cost-effectiveness of clinical decisions, the design of payment systems, fiscal management, and developing collaborative and interdependent relationships. This course is delivered through online technology.
Prerequisite: NURS 5310 and 5314.

NURS 5324 Health Assessment for Advanced Practice
3 Semester Credit Hours (3 Lecture Hours)
Study and practice of complex skills for comprehensive health assessment and focus on the differentiation and interpretation of normal and abnormal findings. Selected laboratory techniques are included. Oral and written communication of findings in a collaborative relationship with other health care providers is emphasized. Variables related to rural and multicultural populations are incorporated into the total assessment. Opportunities are provided to develop skills necessary for the identification of health problems, while considering variables associated with multicultural populations across the lifespan. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty.
Prerequisite: NURS 5310 and 5314.

NURS 5326 Advanced Physiology with Pathophysiological Applications
3 Semester Credit Hours (3 Lecture Hours)
Study of normal physiologic and pathologic mechanisms of disease across the lifespan that serve as the foundation for clinical assessment, decision making and client health management in advanced practice nursing. This course is developed through online technology.
Prerequisite: NURS 5310 and 5314.

NURS 5331 Nursing informatics
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the application of computers in nursing. Focuses on concepts and terminology related to computer technology, information management and their use in nursing leadership, nursing education, nursing practice, and nursing research. Designed for graduate students. This course is delivered through online technology.

NURS 5341 Wellness and Health Promotion
3 Semester Credit Hours (3 Lecture Hours)
A study of the complex integration of knowledge, research, and theory essential to developing clinical competence in the teaching-coaching function of the Advanced Practice Nurses. Selected models of health promotion, risk factors and early disease detection are explored. The course emphasizes the importance of situational, cultural, developmental, and individual perspectives in implementing disease prevention/health promotion activities. This course is delivered through online technology.
Prerequisite: NURS 5310 and 5314.

NURS 5351 Advanced Pharmacological Concepts for Nursing Educators
3 Semester Credit Hours (3 Lecture Hours)
Study of advanced pharmacotherapeutics across the life span for the nurse educator. Discussions are based upon current literature, research findings, and case studies. This course is delivered through online technology.
NURS 5352 Nursing Curriculum Planning, Development, and Evaluation  
3 Semester Credit Hours (3 Lecture Hours)  
This course explores theories and models that are applicable to nursing curriculum development. Guidelines for curriculum development, implementation and evaluation are examined. The significance of program outcomes are assessed for application to manage and refine nursing curriculum. This course is delivered through online technology.  
Prerequisite: NURS 5310 and 5314.

NURS 5353 Theory and Concepts for the Nurse Educator  
3 Semester Credit Hours (3 Lecture Hours)  
Focuses on the scientific and theoretical foundations of nursing education; stimulates reflections on the character and aims of the nurse educator; examines the distinctive characteristics and roles of the educator in the diffusion and extension of knowledge through teaching and the advancement of knowledge through research and scholarship. Theories related to teaching and learning are explored. The concepts of role, change, curriculum, instruction and evaluation are introduced. This course is delivered through online technology.  
Prerequisite: NURS 5310 and 5314.

NURS 5354 Assessment, Measurement, and Evaluation in Nursing  
3 Semester Credit Hours (3 Lecture Hours)  
Provides students with an overview of assessment, measurement, and evaluation strategies in the classroom and clinical areas. Students develop evaluation skills emphasizing unit, course and program outcomes. The process of evaluation within the teaching role is framed as a continuous quality improvement educational practice.  
Prerequisite: NURS 5310 and 5314.

NURS 5355 Instructional Teaching Strategies  
3 Semester Credit Hours (3 Lecture Hours)  
Focuses on teaching and learning for nurse educators in the classroom, clinical, and laboratory settings. Emphasis is placed on instructional theory, best teaching practices, and research-based instructional strategies that support a diverse, student-centered learning environment. Instructional strategies will be applied in relation to the fit with teaching content and course design/delivery. Instructional strategies will be assessed for their effectiveness to evaluate student learning and program outcomes. This course is delivered through technology.  
Prerequisite: NURS 5310 and 5314.

NURS 5360 Health Care Financial Management  
3 Semester Credit Hours (2 Lecture Hours, 1 Lab Hour)  
Overview of concepts, principles and uses of basic accounting and budgeting information for the health care manager. Focuses on providing the nurse administrator with a basis for understanding the fiscal status of a health care organization; Includes 45 hours of laboratory time to strengthen financial skills including ROI, budget development, FTEs and financial statement analysis. This course is cross-listed with HCAD 5325. This course is delivered through online technology.  
Prerequisite: NURS 5310 and 5314.

NURS 5362 Leadership Theories in Nursing Practice  
3 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)  
Examines the relationship of leadership and management theory and processes to nursing practice in both urban and rural health care settings. The independent and interdependent functions of the nurse leader at various levels of decision making are identified and analyzed. Concepts basic to organizational functioning and role relationships within a transcultural framework are considered. A clinical laboratory experience provides students opportunities to analyze the effectiveness of leadership behaviors. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty.  
Prerequisite: NURS 5310 and 5314.

NURS 5364 Organizational Design and Behavior in Nursing Practice Environments  
3 Semester Credit Hours (3 Lecture Hours)  
Focuses on the application and utilization of the theories, concepts and principles of organizational design and behavior in nursing leadership. Includes major theoretical viewpoints from organizational dynamics and processes, and their employment in nursing leadership environments. This course is delivered through online technology.  
Prerequisite: NURS 5310 and 5314.

NURS 5365 Quality and Outcomes Management  
3 Semester Credit Hours (3 Lecture Hours)  
Examines conceptual models of quality and their application to the management and evaluation of quality of care across health care settings. The role of outcomes measurement as a major indicator of quality of care is emphasized. This course is delivered through online technology.  
Prerequisite: NURS 5310 and 5314.

NURS 5390 Topics in Advanced Nursing Practice  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
In-depth study and discussion of various topics relevant to nursing. May be repeated when topics vary. Offered on sufficient demand.  
Prerequisite: NURS 5310 and 5314.

NURS 5391 Seminar in Nursing  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
In-depth study and discussion of various topics relevant to nursing. May be repeated when topics vary. Offered on sufficient demand.  
Prerequisite: NURS 5310 and 5314.

NURS 5396 Directed independent Study  
1-6 Semester Credit Hours  
Area of study interest.  
Prerequisite: NURS 5310 and 5314.

NURS 5398 Graduate Research or Project  
1-3 Semester Credit Hours (3 Lecture Hours)  
Proposal development, project implementation or independent research under the direction of major professor. Students who have completed all requirements toward the Master of Science in Nursing degree except the thesis must enroll in this course each semester of the regular academic year under the direction of major professor. May be repeated a maximum of four times.  
Prerequisite: NURS 5310 and 5314.

NURS 5399 Thesis  
3 Semester Credit Hours  
Independent research under the direction of a faculty member. Credit will not be recorded until thesis is accepted by the thesis committee.
NURS 5459 Education Practicum for the Nurse Educator  
4 Semester Credit Hours (1 Lecture Hour, 9 Lab Hours)  
Apply the roles of the nurse educator by using the nurse educator competencies as a framework for the practicum experience. Students will select an area of teaching either as an academic educator or as a clinical educator and work with a preceptor. This course requires the synthesis of theoretical knowledge from foundational courses to the design, implementation, and evaluation of a capstone project. Students will evaluate the responsibilities of the educator role in relation to meeting the goals of the practicum institution. This course requires 135 hours in a practicum setting. Students must achieve a B or above to earn credit for this course. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty. Capstone Course

NURS 5469 Patterns of Care Delivery  
4 Semester Credit Hours (4 Lecture Hours)  
Appraisal of various patterns of care delivery that develop in response to the evolving and increasingly complex resources in the health care delivery system. Students will complete a project evaluating the management and delivery of the continuum of care in one or more health care organizations. Students must earn a B or better grade to earn credit for this course. The lecture component of this course is delivered through online technology. Laboratory hours must complete in appropriate settings approved by clinical faculty. Capstone Course.

NURS 5624 Advanced Health Assessment and Differential Diagnosis  
6 Semester Credit Hours (4 Lecture Hours, 4 Lab Hours)  
Study and practice of complex skills for comprehensive health assessment with focus on differentiation and interpretation of normal and abnormal findings across the lifespan. Focus extends to developing a comprehensive database to establish a list of differential diagnoses. Includes radiology, EKGs and common office tests performed in primary practice. Oral and written communication of findings in a collaborative relationship with other healthcare providers is emphasized. Variables related to rural and multicultural populations are incorporated into the total assessment. Students increase knowledge of anatomy, physiology, and communication skills. The clinical component of the course provides opportunity to interpret as well as practice complex assessment techniques. Students perform basic office tests and interpret other laboratory and diagnostic data as part of the assessment process. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty.

NURS 5644 Management of Acute and Chronic Illness I  
6 Semester Credit Hours (6 Lecture Hours)  
Study of clinical management of commonly occurring acute and chronic conditions in primary health care settings across the lifespan. Content includes study of symptom complexes, pathophysiology, epidemiology, clinical management, and prevention of complications. Emphasis is on symptom analysis, diagnostic reasoning, differential diagnosis, and prescription of therapeutic regimens. Attention is given to research-based pharmacological and non-pharmacological treatments, and integration of nursing, developmental, family and transcultural theories to the diagnostic and management process. The clinical practice provides the opportunity for the student to perform comprehensive and episodic assessments, practice advanced skills in health assessment, diagnose commonly occurring illnesses, and suggest treatments under supervision in urban/rural communities. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty.  
Prerequisite: NURS 5322, 5323, 5341 and 5624.

NURS 5645 Management of Acute and Chronic Illness II  
6 Semester Credit Hours (6 Lecture Hours)  
Continued study of the clinical management of commonly occurring acute and chronic conditions in primary health care settings across the life span. Emphasis is on symptom analysis, diagnostic reasoning, differential diagnosis, and prescription of therapeutic regimens. The clinical practice provides the opportunity for the students to perform comprehensive and episodic assessments, practice advanced skills in health assessment, diagnose commonly occurring illness, and suggest treatments under supervision. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty.  
Prerequisite: NURS 5644.

NURS 5746 Integrated Clinical Practice: FNP  
7 Semester Credit Hours (7 Lecture Hours)  
Continued study of assessment and clinical management of selected health problems frequently seen in primary health care. The clinical portion provides for the development of clinical competence as the student integrates previously acquired knowledge into the enactment of the multiple roles for the nurse practitioner, and allows for a greater degree of interdependent practice based on the student’s abilities and progress. Student may work with a preceptor in multicultural and rural communities. Students must earn a B or better grade to earn credit for this course. The lecture component of this course is delivered through online technology. Laboratory hours must be completed in appropriate settings approved by clinical faculty.  
Prerequisite: NURS 5645.

NURS 6300 Health Policy and Economics for the DNP  
3 Semester Credit Hours (3 Lecture Hours)  
NURS 6300 DNP Leadership in Health Policy (3). Focus is on the use of political efficacy and competence to improve health outcomes and improve the quality of the health care delivery system. The interrelationships between policy, political trends, health care quality outcomes, access to care, and economics will be examined.  
Prerequisite: NURS 6307.

NURS 6301 Epidemiology and Statistics for Evidence-Based Practice  
3 Semester Credit Hours (3 Lecture Hours)  
Principles of epidemiology and biostatics applied to the management of population health.

NURS 6302 Genomics in Health Care  
3 Semester Credit Hours (3 Lecture Hours)  
Focus is on the relationship between genes, environment, and health. Emphasis will be placed on concepts of prevention and treatment effectiveness within cultural care contexts. Ethical and legal considerations will also be addressed.

NURS 6303 System Behavior and Impact on Health Care  
3 Semester Credit Hours (3 Lecture Hours)  
Principles and application of organizational behavior that promotes quality care delivery in diverse healthcare settings. The microsystems framework for quality management will be applied to quality management in selected healthcare settings. May require field-based activities.

NURS 6304 Application of Evidence in Practice I  
3 Semester Credit Hours (3 Lecture Hours)  
Exploration of issues related to evidence-based practice in select clinical settings under the direction of faculty. Synthesizes key research related to clinical topics as part of systematic review of evidence. Requires field-based activities.  
Prerequisite: NURS 6300, 6200, 6221, 6301 and 6302.
NURS 6305  Principles of Nursing Education for Teaching and Patient Care  
3 Semester Credit Hours (3 Lecture Hours)  
An overview of theoretical principles & guidelines used in the design & evaluation of educational programs. Focus is on adult education philosophies and learning theories and their impact on nursing education in multiple settings. Curriculum development at the institutional, course, and individual class levels including both academic and clinical settings will be examined.

NURS 6306  Informatics and Technology for Advanced Practice  
3 Semester Credit Hours (3 Lecture Hours)  
The examination of the use and mobilization of information and technology across organizations for insuring continuity of quality care. May require field-based activities.

NURS 6307  Application of Evidence in Practice II  
3 Semester Credit Hours (3 Lecture Hours)  
Integration of practice, theory, and research to expand clinical expertise in the management of clinical or system problems. Includes the examination of care delivery structures and processes that contribute to specific clinical problems. Clinical practice experiences available with this course.
Prerequisite: (NURS 6304).

NURS 6308  DNP Project Proposal  
3 Semester Credit Hours (3 Lecture Hours)  
Development of DNP project proposal. Requires presentation to DNP faculty for approval at the end of the course.

NURS 6310  DNP Practicum (3)  
3 Semester Credit Hours (3 Lecture Hours)  
Expanded development of expertise in the management of health problems in selected populations through clinical practice experiences.
Prerequisite: (NURS 6321).

NURS 6311  DNP Project Report  
3 Semester Credit Hours (3 Lecture Hours)  
Demonstration of advanced role competencies through the design and the implementation of a project with potential to have a positive impact on patient or system outcomes.
Prerequisite: (NURS 6307).

NURS 6321  Application of Advanced Principles for Clinical Nursing Practice  
3 Semester Credit Hours (3 Lecture Hours)  
Emphasis will be on synthesis of past clinical practice, with advanced understanding of theory, evidence based practice, policy issues, and principles of quality assurance and safety to continue the development of the doctoral student as an expert reflective practitioner. Individualized clinical focus will be on designated populations.
Prerequisite: NURS 6320.

NURS 6331  Advanced Principles for Executive Practice  
3 Semester Credit Hours (3 Lecture Hours)  
Application of financial and human resource management principles in designing solutions to complex healthcare delivery problems emerging from current healthcare reimbursement and performance requirements. Clinical experiences are required for this course.

NURS 6393  Inferential Statistics for Nursing Practice  
3 Semester Credit Hours (3 Lecture Hours)  
In depth study of various leadership and clinical nursing practice areas. Students will study techniques in evidence based research and apply aspects of research methods including quality improvement methodologies and statistical techniques.

NURS 6395  DNP Project Seminar  
1-3 Semester Credit Hours  
Deliverables related to the DNP project. Open only to DNP students in the CONHS with consent of the DNP Chair. Does not count as credit toward regular graded coursework for DNP degree. Grade assigned will be "credit" (CR) or "no credit" (NC).

Occupational Training and Dev (OCTD)  

Operations Management (OPSY)  

OPSY 5315  Operations Management  
3 Semester Credit Hours (3 Lecture Hours)  
Study of operations of manufacturing and service organizations. Introduction to operational design and control issues such as forecasting, capacity planning, facility location and layout, quality, JIT/lean philosophies and materials requirement planning. Emphasis on developing an operational strategy linking functional areas. Includes international, environmental, legal, and ethical aspects of operations.
Prerequisite: ORMS 5310.

OPSY 5370  Seminar  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
in an identified topic in Operations Management. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

OPSY 5396  Directed individual Research Or Readings  
1-3 Semester Credit Hours  
Contact Director of Master’s Programs.

Operations Research/Mgmt Scien (ORMS)  

ORMS 5301  Business Decision Analysis Tools  
3 Semester Credit Hours (3 Lecture Hours)  
An introduction to analytic tools for business and economic decision making. Topics include analytic methods appropriate for cost-volume-profit analysis, financial analysis and valuation, portfolio selection, capacity planning, job scheduling, process and facility design, market analysis, and decision tools needed in other courses.

ORMS 5310  Statistical and Decision Analysis  
3 Semester Credit Hours (3 Lecture Hours)  
A study of analytical methods useful for business and economic decision making. Topics include descriptive statistics, probability, inferential statistical methods, and decision analysis.

ORMS 5370  Seminar  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
in selected business applications of quantitative methods. May be repeated for significantly different topics with written permission from the Director of Master’s Programs.

ORMS 5396  Directed individual Research or Readings  
1-3 Semester Credit Hours (1-3 Lecture Hours)  
Contact Director of Master’s Programs.
Physics (PHYS)

**PHYS 5490 Advanced Topics**
3-4 Semester Credit Hours (3-4 Lecture Hours, 1-2 Lab Hours)
Subject material variable. Advanced topics including literature research. May be repeated for credit when topics are sufficiently different.

Psychology (PSYC)

**PSYC 5311 Research Methods and Statistics I**
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to provide beginners knowledge on topics related to Psychological methodology and statistics. Specifically, the course will cover a range of topics related to standard normal curve, t-scores, z-scores, transformation of scales, reliability, validity, confidence intervals, effect size, item analysis and factor analysis. The course will cover these topics within the context of t-tests, correlation and regression analyses. It will also cover the research methods in which these tests are most commonly used: non-experimental methods such as survey and longitudinal studies.
Prerequisite: (MATH 1342 and PSYC 3411).

**PSYC 5312 Research Methods and Statistics II**
3 Semester Credit Hours (3 Lecture Hours)
The purpose of this course is to provide advanced knowledge on topics related to psychological methodology and statistics. Specifically, the course will cover the following statistical tests: ANOVA, non-parametric statistics, between, within/repeated and mixed studies design. Furthermore, it will also cover the research designs in which these tests are commonly used. Specifically, the course will focus primarily on quantitative and qualitative experiments.
Prerequisite: PSYC 5311.

**PSYC 5321 Biological Bases of Behavior**
3 Semester Credit Hours (3 Lecture Hours)
The study of the anatomy and physiology of the human nervous system including neural transmission, motor systems, speech and higher cortical functions with special emphasis on the physiological changes associated with pathological conditions and their impact on human behavior. Core course.

**PSYC 5322 Advanced Personality Theories**
3 Semester Credit Hours (3 Lecture Hours)
A survey of the major approaches to the study of personality. Psychoanalytic, trait, behavioral and humanistic paradigms will be studied with respect to theory, research, and therapeutic application.

**PSYC 5323 Advanced Social Psychology**
3 Semester Credit Hours (3 Lecture Hours)
A survey of social psychological theory and research. Topics include attitudes, cognition, interpersonal relationships, social influence, prejudice, and group behavior.

**PSYC 5324 Advanced Developmental Psychology**
3 Semester Credit Hours (3 Lecture Hours)
A review of research and theories on normal physical, cognitive, emotional, and social development across the lifespan.

**PSYC 5341 Graduate Psychopathology**
3 Semester Credit Hours (3 Lecture Hours)
Theories, processes and issues related to the development, evaluation, and classification of deviant behaviors.

**PSYC 5342 Professional Issues and Ethics in Psychology**
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to introduce graduate students to the ethical standards and contemporary issues affecting professional conduct in the field of psychology. The topics covered revolve around ethical conduct in practice and research, as well as the decision-making foundations for resolving ethical issues. In addition to ethical standards, legal issues affecting professional practice will be covered in detail.

Political Science (POLS)

**POLS 5300 U.S. Government institutions**
3 Semester Credit Hours (3 Lecture Hours)
a survey of the major institutions of the U.S. national government, with special attention to the presidency, Congress, and the U.S. Supreme Court. Some comparative discussion of federalism, parliamentary systems of government, and proportional representation. Brief review of the U.S. Constitution, the federal court structure, and the role of Federal Reserve System. (Credit may not be given for both this course and PADM 5300.)

**POLS 5302 Policy Making and Public Administration**
3 Semester Credit Hours (3 Lecture Hours)
Relationship of politics and administration with reference to the influence of administration and bureaucracy, legislative bodies, parties, political leadership, interest groups and other forces in the formation and execution of public policy in various levels of, primarily, American government. (Credit may not be given for both this and PADM 5302.)

**POLS 5308 Administrative Law**
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the nature of law, especially the law of administrative procedure. The course examines the separations and delegation of powers, the meaning and functioning of the Administrative Procedures Act, the scope of judicial review, and other remedies against administrative actions. (Credit may not be given for both this and PADM 5308.)

**POLS 5330 Public Policy Analysis**
3 Semester Credit Hours (3 Lecture Hours)
A survey of the approaches and analytical tools available in policy analysis. Special attention is given to the role of policy analysis in informing the process of change and reform in American society. The course gives students opportunities to research policy issues and teaches them how to think about any area policy. Students should gain an understanding of the various approaches of inquiry into policy problems. (Credit may not be given for both this and PADM 5325.)

**POLS 5340 Environmental Policy**
3 Semester Credit Hours (3 Lecture Hours)
A study of the political factors that influence the environmental policy of the United States. Emphasis is on the policy process rather than the details of environmental regulations. South Texas issues are studied in order to understand the complexities facing public administrators at the local level. Offered on sufficient demand. (Credit may not be given for both this and PADM 5340.)

**POLS 5396 Individual Study**
3 Semester Credit Hours
Individual study, reading or research with faculty direction and evaluation. Offered on application to and approval of the program coordinator.
PSYC 5343 Intellectual Assessment
3 Semester Credit Hours (3 Lecture Hours)
Instruction in the theoretical, ethical and practical application of intellectual assessment in a clinical setting using standardized instruments, such as the WAIS-IV and WISC-IV. Also reviews the current development and use of other instruments that assess cognitive function.

PSYC 5344 Personality Assessment
3 Semester Credit Hours (3 Lecture Hours)
Personality assessment and interpretation using standard instruments such as MMPI, CPI, TAT, and Rorschach.

PSYC 5345 Family Theory, Practice and Therapy
3 Semester Credit Hours (3 Lecture Hours)
Provides an introductory survey of the major theories and theorists in the area of the psychological formulation of family therapy. This course will cover various theories of family therapy as well as assessment of family dynamics, and the implications for the application of family theory in practice. A review of the research done in the area and the applicability of the research findings in practice.

PSYC 5348 Projective Techniques
3 Semester Credit Hours (3 Lecture Hours)
An in-depth study of projective techniques for personality assessment. The main instrument studied is the Rorschach Inkblot Test using the Beck system. Also covered are the Thematic Apperception Test (TAT), House-Tree-Person Projective Technique, and Draw-a-Person Techniques.

PSYC 5349 Diversity Issues and Multiculturalism in Psychology
3 Semester Credit Hours (3 Lecture Hours)
This purpose of this course is to build foundation on multicultural competencies and skills to provide culturally relevant, sensitive, and effective psychotherapy services and assessments to diverse populations. Students will obtain a thorough review on multicultural awareness, skills and knowledge which will improve competencies related to the practice of psychology. Evaluation of culture from the standpoint of both the therapist and the client in the delivery of therapeutic services is the key feature of this course. Thus, the course will provide a sociopolitical perspective as well as identify where specific forms of oppression operate and impact clinical practice and psychology research.

PSYC 5350 Introduction to Psychotherapy
3 Semester Credit Hours (3 Lecture Hours)
The course includes a review of numerous theoretical approaches to psychotherapy, with a reliance on information from research-supported psychotherapeutic approaches. Students will learn the similarities and differences between these approaches at both the theoretical and technical level. Various stages of treatment and a range of important issues in conducting psychotherapy are considered. Students will develop a general understanding of the process of therapy, an ability to conceptualize client problems in a way that suggests potential interventions, and knowledge of techniques that can facilitate improvement.

PSYC 5351 Child Psychopathology
3 Semester Credit Hours (3 Lecture Hours)
The course will take a developmental approach in explaining child psychopathology. The course will include a consideration of diagnostic, epidemiological, developmental, and psychophysiological determinants of behavior.
Prerequisite: PSYC 5324 and 5341.

PSYC 5352 Therapy with Multiple Clients: Interpersonal and Group Dynamics
3 Semester Credit Hours (3 Lecture Hours)
This course will engage graduate-level students in the study of the principal theories of group therapy and family therapy. The class will focus on the theoretical, ethical, and practical and culturally-informed application of both group process and family therapy.

PSYC 5355 Group Psychotherapy
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to introduce the graduate student to the theoretical and applied issues related to the practice of group psychotherapy. Examines a variety of therapeutic groups as well as the issues related to the practice of group psychotherapy with special populations.
Prerequisite: PSYC 5350.

PSYC 5356 Applied Behavioral/Cognitive Psychology
3 Semester Credit Hours (3 Lecture Hours)
The focus of this course will be on key cognitive and affective bases of behavior and the manner in which these interact with environmental influences. The course will cover how essential concepts within these areas are linked to theoretical conceptualizations of behavior and psychopathology. Theoretical principles will be linked to applications within clinical psychology and to evidence-based interventions for psychological disorders.

PSYC 5357 Psychopharmacology
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to introduce the graduate student to the basic classes of psychotropic drugs and their effects on human behavior. The course will begin with a basic review of how drugs are processed and used by the body including pharmacokinetics, pharmacodynamics and neural transmission. A discussion of the chemical properties of both therapeutic drugs and drugs of abuse by drug class will follow, including a discussion of the most common drugs used to treat psychological disorders. A previous course in graduate Physiological Psychology (PSYC 5321) is a prerequisite for this course.
Prerequisite: PSYC 5321.

PSYC 5360 Seminar in Psychology
3 Semester Credit Hours (3 Lecture Hours)
In-depth study of various topics within psychology such as those related to history, clinical, social, experimental and business and industrial. May be repeated when topics vary.

PSYC 5395 Thesis
3 Semester Credit Hours
Independent research under the direction of a faculty member. May be repeated to a total of six semester hours.

PSYC 5396 Individual Study
3 Semester Credit Hours
Individual study, reading or research with faculty direction and evaluation. Offered on application to and approval of the program coordinator. No more than 6 hours will be counted towards the degree.

PSYC 5398 Clinical Practicum
3 Semester Credit Hours
Supervised experience in a placement such as a community mental health/mental retardation agency. May be repeated. (Limited to degree students in the Psychology program or graduates of the psychology program working on the LSSP [Licensed Specialist in School Psychology]). Liability insurance required. Enrollment is dependent on the number of suitable practicum sites available.
Public Administration (PADM)

PADM 5300 U.S. Government Institutions
3 Semester Credit Hours (3 Lecture Hours)
A survey of the major institutions of the U.S. national government, with special attention to the presidency, Congress, and the U.S. Supreme Court. Some comparative discussion of federalism, parliamentary systems of government, and proportional representation. Brief review of the U.S. Constitution, the federal court structure, and the role of Federal Reserve System. (Credit may not be given for both this course and POLS 5300.)

PADM 5301 Theory and Practice of Public Administration
3 Semester Credit Hours (3 Lecture Hours)
An introduction to the concepts, theories, literature, legal aspects, and practices of public administration and management. Topics include administrative behavior; program planning, management and evaluation; decision-making; structure and processes of organizations; and ethics.

PADM 5302 Policy Making and Public Administration
3 Semester Credit Hours
Relationship of politics and administration with reference to the influence of administration and bureaucracy, legislative bodies, parties, political leadership, interest groups and other forces in the formation and execution of public policy in various levels of, primarily, American government. (Credit may not be given for both this course and POLS 5302.)

PADM 5303 Administrative Ethics
3 Semester Credit Hours (3 Lecture Hours)
A survey of ethical issues faced by public administrators. The course will provide a general grounding in the philosophical and theoretical foundations of ethical inquiry. Special attention will be given to ethical problems arising within hierarchical organizations and to the ethical implications of particular public policies.

PADM 5304 Human Resource Management
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the major personnel management problems and issues in the public sector. The functions of recruitment, selection, development, compensation, and employee relations will be studied. Special attention will be given to the legal environment of personnel.
Prerequisite: PADM 5301.

PADM 5305 Public Budgeting and Finance
3 Semester Credit Hours (3 Lecture Hours)
An analysis of the formation, management, and administration of fiscal policies at all levels of government in the United States. Basic financial management planning, preparation, presentation, and resource allocation analysis.

PADM 5306 Public Sector Fiscal Management and Analysis
3 Semester Credit Hours (3 Lecture Hours)
This course takes an in-depth look at finance and focuses on budget and reform techniques, revenue sources, structure and control, the administration of debt and cash management; including strategies for reducing borrowing costs and increasing the interest earnings of government.
Prerequisite: PADM 5305.

PADM 5307 Economic Analysis
3 Semester Credit Hours (3 Lecture Hours)
An introduction to economic analysis for managers. This course includes an overview of microeconomic and macroeconomic theory, the use of economic models and tools, and applications to the public sector.

PADM 5308 Administrative Law
3 Semester Credit Hours (3 Lecture Hours)
Analysis of the nature of law, especially the law of administrative procedure. The course examines the separation and delegation of powers, the meaning and functioning of the Administrative Procedures Act, the scope of judicial review, and other remedies against administrative actions. (Credit may not be given for both this course and POLS 5308.)

PADM 5310 Public Organizations
3 Semester Credit Hours (3 Lecture Hours)
A course designed to develop an understanding about public sector organizations, their environments, and the political subsystems in which they exist. The course explores organization theory and administrative behavior to understand and diagnose organizational problems and dynamics in the public sector. Emphasis is placed on organization-environment relationships.

PADM 5311 Research Methods in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
Examination of analytical methods, research techniques, and models of inquiry in the social and administrative sciences. Topics may include problem definition; needs assessment; data gathering, processing and interpretation; survey research; secondary analysis; and demographics. [Cross-listed with IDSY 5311.]
Prerequisite: SOCI 1342, PSYC 1342 and MATH 1342.

PADM 5312 Statistics for Public Administrators
3 Semester Credit Hours (3 Lecture Hours)
Examination of the statistical techniques used by public administrators to include descriptive and inferential statistics. Use of SPSS for analysis of empirical and secondary data sources. Interpretation, analysis and presentation is emphasized. Integration of research design and statistical techniques.
Prerequisite: PADM 5311.

PADM 5313 Survey Research for Public and Non-Profit Managers
3 Semester Credit Hours (3 Lecture Hours)
The ability to conduct and interpret survey research is becoming an integral part of public management. This course provides students with the knowledge and skills needed to direct, understand, and make effective use of administrative and policy information from survey research data.

PADM 5320 Diversity in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
This course examines the importance of diversity, including race/ethnicity, gender and other demographics in public administration at the local, state and federal level and in various types of public agencies.

PADM 5331 Public and Non-Profit Management
3 Semester Credit Hours (3 Lecture Hours)
An examination of theories, processes, and skills in managing the public and non-profit sectors. Topics of study include how to successfully implement policies, administer services and provide public goods, and collaborate with agencies in various sections.

PADM 5332 Resource Development for Non-profit Organizations
3 Semester Credit Hours (3 Lecture Hours)
Examination of the theoretical and practical applications of fundraising. A study of government or non-profit agency grant and contract administration. Applications for responding to funding assistance and solicitations and grants. Contract preparation, evaluation, and presentation.
PADM 5335 Program Evaluation
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to help the pre- and in-service professional public manager conceptualize the program evaluation effort as a meaningful and understandable set of tasks. The course will examine various means of evaluating programs and enable students to develop program evaluation skills, so that they become better contributors and consumers of evaluation and research reports.

PADM 5360 Strategic Planning
3 Semester Credit Hours
A seminar course that gives pre- or in-service managers the tools necessary to consider the long-term mission and direction of the agency and craft strategy and operations from both internal and external stakeholders to achieve those goals. Consideration of strategic planning as a process for implementing strategic management.

PADM 5365 Seminar in Public Administration - Capstone
3 Semester Credit Hours
The capstone course for the MPA program is an integrative approach applying the skills, knowledge and values considered, discussed and acquired throughout the core courses to selected public and administrative problems through analytical exercises and case studies. All other core courses must be completed prior to enrollment in the capstone. This is the exit requirement for the MPA program. This course must be taken during the last semester prior to graduation.

PADM 5370 Topics in Public Administration
3 Semester Credit Hours (3 Lecture Hours)
Seminar in identified topics in Public Administration. May be repeated when topics vary. Offered on sufficient demand.

PADM 5377 Grant Writing
3 Semester Credit Hours (3 Lecture Hours)
An advanced workshop on the grant proposal writing process, including identifying sources of funding, conducting research to support funding applications, data analysis, tailoring each proposal to a specific funding agency, and the requirements of electronic submission. Students will receive experience writing actual proposals on behalf of local organizations and agencies.

PADM 5380 Homeland Security and Public Administration
3 Semester Credit Hours (3 Lecture Hours)
This course will provide an overview of the essential ideas that constitute the emerging discipline of homeland security. The course is designed for students interested in a broad overview of homeland security policies including topics related to emergency management, intelligence gathering and analysis, infrastructure security, protection of civil liberties, and counter terrorism strategies.

PADM 5381 Modern Terrorism and Counter Terrorism
3 Semester Credit Hours (3 Lecture Hours)
This course will provide an introduction to the operational and organizational dynamics of modern terrorism from the Cold War to the present. This course will study terrorist organizations to understand the ideologies, cultures, structures and causative factors behind major movements. This course will also focus on U.S. Efforts to counter terrorism from the Cold War to the Global War on Terrorism.

PADM 5382 Emergency Management and Disaster Planning Practicum
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the public policies, procedures and programs for the management of hazards, emergencies and disasters through the use of case studies. It focuses on providing students hands-on experience in emergency management planning and response through the use of tabletop and field exercises. Students will be required to take this course last in the graduate certificate program.

PADM 5396 Individual Study
3 Semester Credit Hours (3 Lecture Hours)
A carefully planned special study on an academic topic. Directed Individual Study (DIS) is a tutorial, directed and evaluated by a member of the graduate public administration faculty. Enrollment is restricted to graduate students who have demonstrated both academic ability and the capacity for independent work. Complete applications must be filed and approved by the MPA coordinator and the Dean of Liberal Arts in advance of registration.

PADM 5397 Internship
3 Semester Credit Hours (3 Lecture Hours)
INTERNSHIP Practical experience with a government or not-for-profit agency arranged in advance by the supervising professor. Periodic visits, consultations, and a final paper. Offered on sufficient demand and by application to the program coordinator.

PADM 5399 Internship
3 Semester Credit Hours
Practical experience with a government or not-for-profit agency arranged in advance by the supervising professor. Periodic visits, consultations, and a final paper.

Reading (READ)

READ 5310 Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy (K-3). Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of the language systems (reading, writing, speaking, listening). Of particular concern will be children's oral language, letter knowledge, reading and writing vocabularies, concepts about print, and auditory discrimination.

READ 5314 College/Adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adult education.

READ 5321 Fundamentals of Elementary Reading instruction I
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of methods, materials, and strategies for teaching reading. It is designed to provide graduate students with professional knowledge concerning current research, philosophical perspectives, essential program components, and pedagogical strategies essential to the teaching of reading. Enrollment limited to graduate students seeking initial teacher certification.
READ 5322 Fundamentals of Elementary Reading Instruction II
3 Semester Credit Hours (3 Lecture Hours)
This course includes a study of theoretical, research, and pedagogical aspects of the reading-writing connection for grades 4-8 students. There will also be an emphasis on content area reading and study skills as well as the writing process. Enrollment limited to graduate students seeking initial certification.

READ 5323 Fundamentals of Secondary Reading Instruction
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide graduate students with professional knowledge concerning current research, theory, essential program components, and pedagogical strategies in secondary literacy. Application of strategies to the reading, writing, and learning needs to adolescents will be emphasized. Areas of consideration will include classroom assessment of literacy study reading, and integrating trade books into the content classroom. Enrollment limited to graduate students seeking initial certification.

READ 5345 Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate.

READ 5346 Trends and Issues in Literacy
3 Semester Credit Hours (3 Lecture Hours)
In this course students will examine the recent and past trends in literacy and the political, cultural, and research-based forces that influenced those trends. Attention will be given to how those trends have impacted and are impacting literacy instruction.

READ 5350 Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. This course is required for the Master Reading Teacher Certificate.

READ 5352 Theoretical Models of Reading and Writing
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide teachers opportunities to expand their knowledge of the theoretical ways in which reading and writing processes are related and the practical ways in which these parallel processes can be incorporated into the literacy curriculum.

READ 5355 Teaching Literacy through Technology
3 Semester Credit Hours (3 Lecture Hours)
In this course students explore research on the use of computers and related technology to (a) develop a more responsive literacy curriculum, and (b) determine literacy management and evaluation procedures in the technology environment.

READ 5357 Critical Literacy
3 Semester Credit Hours (3 Lecture Hours)
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts.

READ 5369 Content Area Reading
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students' abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation.

READ 5371 Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course students learn techniques for diagnosis and correction of reading problems as they work with children experiencing difficulty in learning to read.

READ 5372 Classroom Assessment and Instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. This course is required for the Master Reading Teacher Certificate.

READ 5381 Exploring the Literature of Children and Adolescents
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the historical, social, and pedagogical developments of the field of literature for children and adolescents.

READ 5390 Professional Seminar: Special Topics in Literacy
3 Semester Credit Hours
The course addresses issues relevant to literacy. It may be repeated when topics vary.

READ 5392 Psycho-sociolinguistics and Reading
3 Semester Credit Hours (3 Lecture Hours)
This course explores the psychology of language as well as the social semiotics of language learning. Theories of cognition and sociolinguistics will be examined as they relate to literacy development in regular and specialized learning contexts.

READ 5393 Literacy Curriculum and Supervision
3 Semester Credit Hours (3 Lecture Hours)
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 5395 Leadership and Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes how to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues.

READ 5396 Literacy Research Seminar
3 Semester Credit Hours
This seminar is the culminating course in the graduate reading concentration. Current trends in literacy research, the critical examination of selected research studies, and the self-evaluation of professional needs and interests are included. This course calls for students to integrate information from previous classes with new information presented in this class in order to develop, conduct, and evaluate action-based research.

READ 5696 Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.
READ 5697  Reading Practicum
6 Semester Credit Hours (6 Lecture Hours)
Students will have an opportunity to apply their knowledge of reading instruction by teaching children and youth with reading difficulties. They will gain knowledge of: the organization and management of the reading program, as well as early intervention strategies and programs. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies on the children and youth being tutored. Some emphasis will also be placed on the many roles of the reading professional.

READ 6310  Emergent Literacy
3 Semester Credit Hours (3 Lecture Hours)
Language acquisition and functions of language are explored for beginning literacy P-4. Emphasis will be on classroom strategies for promoting language development and literacy growth for children through the integration of language systems (reading, writing, speaking, listening). Of particular concern will be children's oral language, letter knowledge, reading and writing vocabulary, concepts about print, and auditory discrimination. Doctoral students enrolled in this course will be expected to complete all assignments designated for master's students and also complete additional specified assignments. Students who took this course as READ 5310 may not take the course as READ 6310.

READ 6314  College/adult Literacy
3 Semester Credit Hours (3 Lecture Hours)
Theories and research on reading, writing, and study processes of college and adult students will be explored. Students will learn about program design, teaching/learning strategies, and assessment procedures appropriate for developmental college students and adults. In addition, doctoral students will study topics related to educating adults in professional situations. Students who took this course as READ 5314 may not take the course as READ 6314.

READ 6345  Stages and Standards for Reading Development
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes effective reading practices that reflect state content and performance standards. Particular emphasis is placed on the interrelated components of reading and how these components apply in reading instruction. Equal emphasis is placed on primary, middle school, and high school students. This course is required for the Master Reading Teacher Certificate. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5345 may not take the course as READ 6345.

READ 6350  Multicultural Literacy
3 Semester Credit Hours (3 Lecture Hours)
This is a graduate level course that focuses on issues pertaining to multicultural literacy and biliteracy. This course examines the educational issues confronting culturally and linguistically diverse students in our schools today. Doctoral students will have assignments that go beyond those for master's students. Students who took this course as READ 5350 may not take the course as READ 6350.

READ 6352  Theoretical Bases for Literacy
3 Semester Credit Hours (3 Lecture Hours)
Course focus is on major theories of reading and literacy in terms of both processes and practices. It also attends to ways in which theory relates to the literacy curriculum.

READ 6356  Writing for Publications in Higher Education
3 Semester Credit Hours (3 Lecture Hours)
This course addresses topics in writing for publication in higher education including the writing process, composition, organization, collaboration, and the identification of forums for dissemination of research and scholarship.

READ 6357  Critical Literacy
3 Semester Credit Hours (3 Lecture Hours)
Attention is on the theoretical and philosophical foundations of critical literacy. Students expand the lens through which literacy in schools may be viewed and develop a language of critique for analyzing literacy in social, political, and economic contexts. Doctoral students have assignments that go beyond those for master's students. Students who took this course as READ 5357 may not take the course as READ 6357.

READ 6369  Content Area Reading
3 Semester Credit Hours (3 Lecture Hours)
In this course graduate students examine the theoretical and functional aspects of literacy across the curriculum. Emphasis is placed on (a) ways to promote and develop students' abilities to learn through text-based instruction, (b) ways to promote the acquisition of study skills, and (c) ways to assist struggling readers in a classroom situation. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5369 may not take the course as READ 6369.

READ 6371  Diagnosis and Correction of Reading Problems
3 Semester Credit Hours (3 Lecture Hours)
In this course, students will become aware of the factors that influence reading achievement through the study and implementation of various assessments. Some attention will also be paid to instructional strategies. The primary focus will be on children who are having difficulty reading. Students who took this course as READ 5371 may not take the course as READ 6371.

READ 6372  Classroom Assessment and instruction
3 Semester Credit Hours (3 Lecture Hours)
Course attention is on the selection and administration of appropriate reading assessments for all students. Particular focus is given to the role and use of reading assessment for planning, designing, and adjusting instruction to promote literacy learning for all learners. Students who took this course as READ 5372 may not take the course as READ 6372.

READ 6380  Advanced Studies in Literature for Children and Adolescents
3 Semester Credit Hours (3 Lecture Hours)
This course will examine the historical, sociological, and pedagogical developments of the field of literature for children and adolescents and will emphasize teacher research and inquiry. The major emphasis of the course will focus on awareness of both traditional and contemporary literature and authors for children and adolescents.

READ 6390  Special Topics in Reading
3 Semester Credit Hours (3 Lecture Hours)
The course addresses contemporary issues in education. It may be repeated when topics vary.

READ 6391  Evaluation of Literacy Methods, Materials, and Assessment
3 Semester Credit Hours (3 Lecture Hours)
Reading professionals taking the course acquire the knowledge and strategies to evaluate literacy-related materials, methodologies, and assessment. In addition, they will develop a process to evaluate teacher-produced and commercial materials.
READ 6392  Psycho-sociolinguistics and Reading
3 Semester Credit Hours (3 Lecture Hours)
This course explores the psychology and the social semiotics of language and their relationship to literacy teaching and learning. Theories of cognition and sociolinguistics will be examined as frameworks for better understanding literacy development. Semiotics is the study of the signs and symbols of language and deals with their functions in the syntactic, semantic, and pragmatic use of language. Doctoral students will complete a major research paper on a topic to be approved by the professor. Students who took this course as READ 5392 may not take the course as READ 6392.

READ 6393  Literacy Curriculum and Supervision
3 Semester Credit Hours (3 Lecture Hours)
Components of comprehensive reading programs in schools and districts will be examined, and strategies for literacy curriculum design and staff development will be explored. Emphasis will be on the literacy professional as a change agent and promoter of educational innovation.

READ 6395  Leadership and Literacy
3 Semester Credit Hours (3 Lecture Hours)
This course emphasizes "how" to disseminate reading research to critical stakeholders involved in education. Techniques include, but are not limited to, coaching, collaborating, mentoring, and consulting with colleagues. Students who took this course as READ 5395 may not take the course as READ 6395.

READ 6396  Literacy Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
In this doctoral-level course in reading/literacy research, attention goes to historical and current trends in literacy research, the critical examination of selected reading research studies, and self analysis of personal and professional interests and needs. This course calls for students to integrate information from previous graduate classes with information presented in this class to analyze and implement reading/literacy research. Doctoral students enrolled in this course will be expected to complete all assignments designated for the master's level students and also complete additional specified assignments. Students who took this course as READ 5396 may not take the course as READ 6396.

READ 6398  Advanced Reading Supervision Practicum
3 Semester Credit Hours (3 Lecture Hours)
In this course, reading specialists will be provided with an opportunity to apply their supervisory skills in a practical situation. Students will observe and evaluate inservice teachers, as well as make suggestions for improvement. Course requirements include completion of teacher evaluation summaries; development of observation forms; description of a district-wide reading program; and planning and implementation of an inservice workshop.

READ 6399  Advanced Literacy Research Seminar
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to familiarize doctoral students with (a) historical avenues of literacy research, (b) current trends in literacy research, and (c) procedures for conducting personal research leading to a doctoral dissertation in some aspect of literacy education.
Prerequisite: EDLD 6333.

READ 6696  Directed Individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

READ 6697  Reading Clinic Practicum
6 Semester Credit Hours
In this course students will have an opportunity to apply their knowledge of reading instruction by teaching children with reading difficulties. In addition, students will gain knowledge of strategies for comprehension, word recognition and study skills. Literacy leaders and their contributions to the knowledge base for reading and writing instruction will be reviewed. Course requirements include the development of case studies. Doctoral students have additional assignments that go beyond those required of master's students. Students who took this course as READ 5697 may not take the course as READ 6697.
Prerequisite: READ 5371 or 6371.

Reciprocal Exchange Program (REEP)

REEP 5096  Reciprocal Exchange Program
12 Semester Credit Hours

Science/Math and Tech Educat (SMTE)

SMTE 5004  Teaching Assistant Seminar
0 Semester Credit Hours
Examination of contemporary theories of teaching and learning. Basic lesson design, teaching skills, assessment, multicultural education, time management, classroom management, lab safety, and other required training skills required for laboratory. Course content will be linked to participants' experiences as teaching assistants. Course is taken as credit/no credit and may not be applied toward an M.S. degree in the College of Science & Engineering.

SMTE 5104  Seminar for Teaching Assistant
1 Semester Credit Hour (3 Lecture Hours)
SEMINAR FOR TEACHING ASSISTANT Examination of contemporary theories of science teaching and learning. Basic lesson design, teaching skills, assessment, multicultural education, teaching "special needs" students. Course content will be linked to participants' experiences as teaching assistants, and will include discussions of their day-to-day experiences. Course is taken as credit/no credit.

Sociology (SOCI)

SOCI 5396  Individual Study
3 Semester Credit Hours (3 Lecture Hours)
Individual study, reading or research with faculty direction and evaluation.

SOCI 6312  Community Development
3 Semester Credit Hours (3 Lecture Hours)
Ethical perspectives on community development; processes by which groups within a community work together to fulfill community needs through inter-institutional cooperation; establishing cross-institutional linkages; public and private resources for community development; structures and processes of inter-institutional cooperation.

SOCI 6313  Regional Analysis
3 Semester Credit Hours (3 Lecture Hours)
Sources of data for defining social, economic, demographic, educational, and cultural characteristics of a region; modes of data analysis for ascertaining regional resources and problems; review and analysis of data relative to South Texas Region.
Special Education (SPED)

SPED 5310 Psychoeducational Testing
3 Semester Credit Hours (3 Lecture Hours)
Focuses on current research and best practice in assessment of exceptional learners, interpretation of formal and in formal assessment data gathered through a variety of methods, assessment of students from diverse backgrounds and the application of data gathered via a multi-tiered system of support (MTSS). Instructor's permission required. 
Prerequisite: CNEP 5371 and 5374.

SPED 5311 Advanced Assessment
3 Semester Credit Hours (3 Lecture Hours)
Presents a variety of research-based assessment techniques and tools designed to assess exceptional learners. Academic and cognitive assessments are combined for interpretation and development of Full and Individual Evaluations.

SPED 5315 Individuals with Exceptionalities in Schools
3 Semester Credit Hours (3 Lecture Hours)
This course provides basic information and skills for working with students with exceptionalities in a variety of settings. It also includes current trends, issues, and research pertaining to persons with exceptionalities.

SPED 5319 Introduction to Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the field of low-incidence disabilities. Students will explore foundational concepts including: definition and etiology, family and professional partnerships, special education law, and standards based IEPs.

SPED 5320 Application of Learning Principles
3 Semester Credit Hours (3 Lecture Hours)
This course prepares teachers, administrators, counselors and diagnosticians to use a variety of applied learning principles to increase student learning and minimize disruptive behavior.

SPED 5321 Supporting Access for Students with Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on areas of universal design, assistive technology, and resources that support the learning and independence of diverse learners both in school and community settings. Class sessions will be held both on campus and in community settings.

SPED 5324 Survey of Assistive Technology
3 Semester Credit Hours (3 Lecture Hours)
This course is an introduction to assistive technology for individuals with disabilities.

SPED 5325 Technology for inclusion
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on the use of assistive technology to support and facilitate inclusion of students with disabilities in the classroom.
Prerequisite: ETEC 5301.

SPED 5326 Assistive Technology Assessment
3 Semester Credit Hours (3 Lecture Hours)
This course will provide systematic procedures for the assessment of individual student’s assistive technology needs. Legal issues of assistive technology and its impact on public education will be addressed.
Prerequisite: ETEC 5301.

SPED 5327 Motor Activity Programs for individuals with Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course examines the significant role of motor activity in the lives of people with disabilities. Major programmatic approaches to adapted physical activity are presented.

SPED 5340 Individuals with Multiple Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course is an advanced study of the adaptations, approaches, and supports necessary to meet the educational needs of students who have communication, intellectual, motor, sensory, and/or medical impairments.

SPED 5380 Behavioral Supports and Interventions for Students with Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on characteristics and classifications of children and adolescents with behavior disorders. Intervention orientations and associated education/treatment approaches for children and adolescents will be explored.

SPED 5385 English Learners and Special Education
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to prepare special educators to address the sociocultural and ethnolinguistic needs of English learners. Particular emphasis is placed on: understanding the influence of language and culture in the design of instruction to prevent academic difficulty; the identification of students who need additional instructional supports; appropriate referral, screening, and assessment of students suspected of having disabilities; and the design of individualized education plans for students who qualify for special education services.

SPED 5386 Strategic Reading and Language Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on reading and language strategies for teaching students with disabilities, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

SPED 5387 Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

SPED 5388 Current Issues in Special Education
3 Semester Credit Hours (3 Lecture Hours)
CURRENT ISSUES IN SPECIAL EDUCATION Addresses issues currently facing the special education area. The course will focus on the following topics: (1) law and litigation, (2) inclusion, (3) assessment and individualized educational plan (IEP) procedures, (4) classification and labeling, (5) collaboration and consultation, (6) transition, (7) vocational education, (8) parent involvement, and (9) other relevant cultural pluralistic issues.

SPED 5390 Professional Seminar
3 Semester Credit Hours (3 Lecture Hours)
Topics in Special Education vary with professional identification of participants.
SPED 5397 Special Education Field Experience
3 Semester Credit Hours (3 Lecture Hours)
A field-based experience in which the student will demonstrate competencies to design and/or implement IEP’s for students with disabilities, including those who are English learners. Grade assigned will be "credit" (CR) or "no credit" (NO).
Prerequisite: SPED 5315 and (SPED 5380, 5320 and 5387).

SPED 5399 Individualized Programs for Students with Exceptionalities: Practicum
3 Semester Credit Hours (3 Lecture Hours)
Field-based practicum based on Texas Educational Diagnostician standards. This course focuses on opportunity to gain extensive field experience in the administration and interpretation of assessment instruments and the development of individualized education programs. Instructor’s permission required.
Prerequisite: (CNEP 5371, 5374, SPED 5310, 5315 and 5387).

SPED 5696 Directed individual Study
1-6 Semester Credit Hours
May be repeated when topics vary.

SPED 6315 Individuals with Exceptionalities in the Schools
3 Semester Credit Hours (3 Lecture Hours)
Basic information and skills for working with individuals with exceptionalities in a variety of settings. Includes current trends, issues and research pertaining to individuals with disabilities. Students who have taken SPED 5315 may not enroll in SPED 6315.

SPED 6319 Introduction to Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the field of low-incidence disabilities. Students will explore foundational concepts including: definitions and etiology, family and professional partnerships, special education law, and standards based Individualized Education Program (IEPs).

SPED 6320 Applications of Learning Principles
3 Semester Credit Hours (3 Lecture Hours)
This course prepares student(s) to use a variety of evidence-based approaches to increase student learning and minimize disruptive behavior.

SPED 6321 Supporting Access for Students with Low-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on areas of universal design, assistive technology, and resources that support the learning and independence of diverse learners both in school and community settings. Class sessions will be held both on campus and in community settings.

SPED 6380 Behavior Intervention and Support for Students with Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course will focus on characteristics and classifications of children and adolescents with behavior disorders. Intervention orientations and associated education/treatment approaches for children and adolescents will be explained.

SPED 6385 English Learners and Special Education
3 Semester Credit Hours (3 Lecture Hours)
The philosophical and legal foundations of bilingual special education and bilingual education in the United States will be examined. Bilingual special education and bilingual education will be defined and the rationale for these programs will also be explained. Moreover, language minority education program models will be described and aspects associated with bilingualism will be discussed. Special emphasis will be placed on a perusal of school-community dynamics relevant to language minority special education.

SPED 6386 Strategic Reading and Language Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on reading and language strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic reading and writing instruction.

SPED 6387 Strategic Math and Content Area Instruction for Students with High-Incidence Disabilities
3 Semester Credit Hours (3 Lecture Hours)
This course focuses on content-area strategies for teaching exceptional children, including those who are English learners. It is designed to give students an overview of strategic mathematics and content area instruction.

Sports Medicine (SMED)

SMED 5100 CPR and Basic Life Support
1 Semester Credit Hour (1 Lecture Hour)
SMED 5100 provides the skills needed by health care professionals who are trained to respond to breathing, cardiac, and other first aid emergencies. This includes the use of automated external defibrillation (AED), oxygen, suctioning, and airway management devices to care for a victim of breathing or cardiac emergencies. This course will be taken twice; once in the summer of first year in the program for initial certification and then again in the summer of the second year in the program for recertification.

SMED 5101 Athletic Training Clinical Experience I
1 Semester Credit Hour
SMED 5101 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.

SMED 5102 Athletic Training Clinical Experience II
1 Semester Credit Hour
SMED 5102 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training. Prerequisite: SMED 5101 and 5323 or SMED 5323.

SMED 5103 Athletic Training Clinical Experience III
1 Semester Credit Hour
SMED 5103 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training. Prerequisite: SMED 5102 and 5334 or SMED 5334.
SMED 5104  Athletic Training Clinical Experience IV
1 Semester Credit Hour
SMED 5104 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.
Prerequisite: SMED 5103 and 5343 or SMED 5343.

SMED 5105  Athletic Training Clinical Experience V
1 Semester Credit Hour
SMED 5105 offers a field-based professional experience to provide students the opportunity to apply knowledge and theory related to the philosophy, principles, and competencies in the field of athletic training.
Prerequisite: SMED 5104 and 5335 or SMED 5335.

SMED 5200  Taping, Bracing, and Preventative Care in Athletic Training
2 Semester Credit Hours (2 Lecture Hours)
SMED 5200 provides students with lab-based instructions and experiences to introduce the various products and equipment used in the development and construction of pads and braces for injury prevention during sport and physical activity. Students will learn how to apply taping, bracing, bandaging and padding techniques that are common practice in Athletic Training.
Prerequisite: SMED 5321 or 5321.

SMED 5310  Evidence Based Practice
3 Semester Credit Hours (3 Lecture Hours)
SMED 5310 prepares students with the knowledge, skills and abilities necessary to make independent judgments about the validity, results, and application of clinical research and to implement evidence-based clinical practice in their careers.
Prerequisite: SMED 5311 or 5311.

SMED 5311  Research Methods I
3 Semester Credit Hours (3 Lecture Hours)
SMED 5311 provides students with an intellectual opportunity to explore the methods and designs associated with research. This course explores the process and methods of scientific inquiry and interpretation of research findings in athletic training. Students will gain familiarity with the major elements of research including literature review, quantitative and qualitative methodology, design, evaluation of research, statistical analysis, presentation of data, and ethical considerations.
Prerequisite: SMED 5101 or 5101.

SMED 5312  Research Methods II
3 Semester Credit Hours (3 Lecture Hours)
SMED 5312 provides students with an intellectual opportunity to integrate their knowledge of research basics and clinical skills, with a possibility for publication.
Prerequisite: SMED 5311, 5313 and 5105 or SMED 5105.

SMED 5313  Biological Statistics for Athletic Training
3 Semester Credit Hours (3 Lecture Hours)
SMED 5313 presents a study of the basic biological statistical concepts and their application to research problems in Athletic Training. Knowledge of biological statistics is imperative as students are required to participate in a case study, critically appraised topic, and/or research project. Students are encouraged to publish thus adding to the body of knowledge within Athletic Training. Topics will include issues related to descriptive and inferential statistics.
Prerequisite: SMED 5311 and 5102 or SMED 5102.

SMED 5321  Lower Extremity Assessment, Evaluation and Management
3 Semester Credit Hours (3 Lecture Hours)
SMED 5321 provides students with general knowledge of evaluation techniques of athletic injuries to the lower extremities including history taking, observation, palpation, neurologic and orthopedic testing as well as its acute management and documentation. Students will learn to utilize critical thinking skills to evaluate differential diagnosis and analyze the patient’s signs and symptoms to defend a clinical diagnosis.
Prerequisite: SMED 5341, 5310 and 5200 or SMED 5200.

SMED 5322  Upper Extremity Assessment, Evaluation and Management
3 Semester Credit Hours (3 Lecture Hours)
SMED 5322 provides students with general knowledge of evaluation techniques of athletic injuries to the upper extremities including history taking, observation, palpation, neurologic and orthopedic testing as well as its acute management and documentation. Students will learn to utilize critical thinking skills to evaluate differential diagnosis and analyze the patient’s signs and symptoms to defend a clinical diagnosis.
Prerequisite: SMED 5321 and 5311 or SMED 5311.

SMED 5323  Head, Neck & Spine Extremity Assessment, Evaluation and Management
3 Semester Credit Hours (3 Lecture Hours)
SMED 5323 provides students with general knowledge of evaluation techniques of athletic injuries to the head, neck and spine including history taking, observation, palpation, neurologic and orthopedic testing as well as its acute management and documentation. Students will learn to utilize critical thinking skills to evaluate differential diagnosis and analyze the patient’s signs and symptoms to defend a clinical diagnosis.
Prerequisite: SMED 5322 and 5332 or SMED 5332.

SMED 5324  General Medical Conditions in the Athlete
3 Semester Credit Hours (3 Lecture Hours)
SMED 5324 will provide students with lectures, discussions, and laboratory activities concerning general medical conditions, evaluation techniques, and athletic injuries to internal organs. In addition, interprofessional working relationships with other health and medical professionals and the role of an athletic trainer within the healthcare system will be discussed and explored.
Prerequisite: SMED 5323 and 5103 or SMED 5103 and 5333 or SMED 5333.

SMED 5331  Therapeutic Intervention I
3 Semester Credit Hours (3 Lecture Hours)
SMED 5331 provides the student with knowledge of current theory and application of therapeutic modalities used in the treatment of musculoskeletal injuries.
Prerequisite: SMED 5200 and 5341 and (SMED 5101 or 5101 and SMED 5322 or 5322).

SMED 5332  Therapeutic Intervention II
3 Semester Credit Hours (3 Lecture Hours)
SMED 5332 provides the student with knowledge of current theory and application of therapeutic exercises and manual therapy used in the treatment of musculoskeletal injuries.
Prerequisite: SMED 5323, 5331 and 5102 or SMED 5102.
SMED 5333  Pharmacology for the Athlete  
3 Semester Credit Hours (3 Lecture Hours)  
SMED 5333 will include lectures and discussion of selected sports medicine topics focusing on pharmacology in athletics and activity. Students will examine different classes of medication and their impact on sports and exercise. In addition, inter-professional working relationships with other health and medical professionals and the role of an athletic trainer within the healthcare system will be discussed and explored. Written assignments are designed to provide the student with an opportunity to demonstrate their library research and written communication skills.  
Prerequisite: SMED 5322 or 5324 or SMED 5324.

SMED 5334  Emerging Practices in Athletic Training  
3 Semester Credit Hours (3 Lecture Hours)  
SMED 5334 provides students with creative, flexible and innovative learning experiences on key emerging concepts and techniques that are newly arising within the field of Athletic Training. Content and instruction will examine new technology in the field, emerging theories, legal/ethical challenges and changes, as well as other evolving issues within the profession of athletic training.  
Prerequisite: SMED 5333 and (SMED 5104 or 5104 and SMED 5342 or 5342).

SMED 5335  Athletic Training Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
SMED 5335 provides students with an organized study session to prepare students to be eligible to sit for the Board of Certification (BOC) national examination. This course is in line with the 6th Role Delineation Study from the BOC.  
Prerequisite: SMED 5343 and 5105 or SMED 5105.

SMED 5341  Law & Ethics in Athletic Training  
3 Semester Credit Hours (3 Lecture Hours)  
SMED 5341 provides students with knowledge concerning the legal and ethical issues associated with the practice of athletic training and other health care fields. This course examines the legal principles including negligence, tort, and liability as well as other issues concerning those practicing athletic training. In addition, this course will examine moral and ethical issues in the field which may or may not align with the legal issues in the field. This course is designed to engage students in critical thinking and to challenge them to begin to think about their lives from a legal and ethical perspective.  
Prerequisite: SMED 5310 or 5310.

SMED 5342  Sports Psychology in Athletic Training  
3 Semester Credit Hours (3 Lecture Hours)  
SMED 5342 includes aspects of psychology for understanding and explaining behaviors in the context of exercise and sport. Discussions of identifying high-risk individuals, counseling and referring individuals for help are emphasized. This course will also examine the relationships between psychological factors and human physical activity while obtaining peak performance. Evaluating published research, particularly theory and research methodology practices will be required. Motivational interviewing and behavioral change theory will be briefly discussed.  
Prerequisite: SMED 5334 or 5334.

SMED 5343  Administration, Leadership, & Professional Development in Athletic Training  
3 Semester Credit Hours (3 Lecture Hours)  
SMED 5343 provides the general knowledge and application of athletic training administration including facility design, insurance claims, liability issues, and injury and treatment records. This course is designed to engage students in critical thinking and to challenge them to begin to think about their lives from a professional leadership perspective. This course is in line with the 5th Role Delineation Study from the BOC.  
Prerequisite: SMED 5333 and 5104 or SMED 5104.

Study Abroad Program (SAPR)  

SAPR 5096  Study Abroad Program  
12 Semester Credit Hours (12 Lecture Hours)  

Teacher Education/Student Teaching (EDUC)  

EDUC 5327  Strategies of Success I for the Beginning Teacher  
3 Semester Credit Hours (3 Lecture Hours)  
This course is provided for beginning teachers during their second year on a “Probationary Certificate.” Students are provided with the application of learning principles, classroom management techniques, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA “Probationary Certificate,” but currently in teaching positions. This course is taken during the first semester of the second year on a “Probationary Certificate.”  
Prerequisite: EDUC 5393 and 5394.

EDUC 5351  Foundations of Education in America  
3 Semester Credit Hours  
A course emphasizing multicultural aspects of education; requirements for teaching as they relate to special education students, including the gifted and talented; the legal and ethical aspects of teaching; and the forms of organization and management utilized in Texas and in the U.S. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5352  Planning, Teaching, Learning Processes  
3 Semester Credit Hours  
A course emphasizing the various aspects of planning for teaching: the teaching/learning process; curriculum organization; use of instructional media and technology; instructional planning; and instructional and student evaluation, including standardized testing programs, teacher evaluation, and various forms of instructional and student evaluation planned and conducted by the teacher. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5353  Classroom Management and the Student  
3 Semester Credit Hours  
A course emphasizing methods of organizing and managing a classroom, and student growth and development concepts and how they will affect classroom management. Enrollment limited to graduate students seeking initial teacher certification.
EDUC 5354 Methods of Teaching Mathematics
3 Semester Credit Hours
A course emphasizing the teaching of mathematics in Grades 1-8 using manipulatives in a problem-solving format. Instruction will build upon the following topics which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5355 Methods of Teaching Social Studies
3 Semester Credit Hours
A course emphasizing practical applications for the teaching of social studies in Grades 1-8. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5356 Methods of Teaching Science
3 Semester Credit Hours
This course is designed to provide pre-service teachers with an understanding of the teaching of science in the elementary school setting. Students’ prior knowledge from previous courses will be essential to their performance in this course, namely: technology in the classroom, lesson planning, curriculum organization, and student assessment. Participation in field experiences is a requirement of this course. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5357 Strategies for Teaching in the Secondary School
3 Semester Credit Hours
A course emphasizing practical and varied strategies for instructional planning and presentations. Instruction will build upon the following topics, which will have been introduced in previous courses: the teaching-learning process, curriculum organization, use of instructional technology, instructional planning, and instructional and student evaluation. Each student will participate in field experiences. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5358 Applied Research and Professional Writing
3 Semester Credit Hours (3 Lecture Hours)
A course emphasizing the finding, interpreting, and use of research to achieve a stated educational goal for each individual student. Concepts of tests and measurements will be emphasized for interpreting research results and gathering data for applied research. Students will develop and execute an applied inquiry project. Enrollment limited to graduate students seeking initial teacher certification.

EDUC 5390 Professional Seminar
1-3 Semester Credit Hours (1-3 Lecture Hours)
This course addresses contemporary issues in education. May be repeated for credit when the topic varies.

EDUC 5393 Internship I and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of various aspects of planning for teaching. Enrollment is limited to graduate students seeking initial teacher certification. Interns must be enrolled in EDUC 5352 - Planning, Teaching, Learning Processes* (or have completed EDUC 5352 - Planning, Teaching, Learning Processes*) and completed 30 contact hours of field observation.

EDUC 5394 Internship II and Seminar for the intern Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is a supervised classroom teaching field experience and seminar designed to assist the non-certified teacher with the application of classroom management techniques, and enhance existing teaching skills. Enrollment is limited to graduate students seeking initial teacher certification.

Prerequisite: EDUC 5393 and 5352.

EDUC 5395 Strategies of Success II for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This course is provided for beginning teachers during their second year on a "Probationary Certificate." Students are provided with the application of learning principles, communication skills, and teaching strategies that will reinforce their existing teaching skills. Enrollment is limited to teachers on a TEA "Probationary Certificate," but are currently in teaching positions. This course is taken during the second semester of the second year on a "Probationary Certificate."

Prerequisite: EDUC 5393, 5394 and 5327.

EDUC 5397 Practicum I for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
This is a supervised classroom teaching field experience designed to enhance the individual teacher’s existing teaching skills for the beginning teachers during their third year on a "Probationary Certificate." Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken concurrently with EDUC 5327 first semester of the third year on a "Probationary Certificate."

This course may not be taken for graduate credit if the student has taken EDUC 5393, 5394 or 5395.

Prerequisite: EDUC 5327, 5393, 5394 and 5395.

EDUC 5398 Practicum II and Seminar for the Beginning Teacher
3 Semester Credit Hours (3 Lecture Hours)
Beginning teachers who are currently in their third year of a "Probationary Certificate" are provided with additional skills to enrich their classroom teaching proficiency through seminars and supervised supervision for effective classroom teaching. Enrollment is limited to certified teachers on a TEA "Probationary Certificate," but currently in teaching positions. This course is taken during the second (and final) semester of the third year on a "Probationary Certificate."

Prerequisite: EDUC 5327, 5393, 5394, 5395 and 5397.

EDUC 5696 Directed Individual Study
1-6 Semester Credit Hours (1-6 Lecture Hours)
Contemporary issues in educational technology; topics vary with professional interests and needs of participants. This "hybrid" course focuses upon enabling students to design effective instructional activities and materials for on-line instruction within a learning management system (LMS) environment. Students will acquire research-based knowledge about the design and development of effective on-line instruction which is consistent with established best practices. Emphasis will be placed upon development of on-line instruction in curricular areas specified by the instructor or selected by the student, subject to instructor approval.

Theatre (THEA)

THEA 5370 Seminar in Theatre
3 Semester Credit Hours (3 Lecture Hours)
Selected topics that investigate the history, theory, and production of drama including Dramatic Criticism, Technical Theatre, Directing Problems, and Theatre History. May be repeated when topics vary.
THEA 5371 Styles of Acting
3 Semester Credit Hours (3 Lecture Hours)
Intensive exploration of various performance styles for the actor from the Classical to Contemporary Periods.
Prerequisite: THEA 3375.

THEA 5372 Stage Direction
3 Semester Credit Hours (3 Lecture Hours)
Intensive study and practice in the principles of stage direction including stage movement, script analysis, theatre aesthetics, and audience analysis.
Prerequisite: THEA 4360.

THEA 5384 Theatre Production
3 Semester Credit Hours (3 Lecture Hours)
An applied production experience in which students perform in a play, work back stage or on a stage crew, direct or learn to design a play or musical from conception to final production.

THEA 5396 Individual Study
3 Semester Credit Hours (3 Lecture Hours)
Individual study, reading or research with faculty direction and evaluation. Credit for this course is limited to 6 hours in any degree plan.

Writing (WRIT)

WRIT 5302 Foundations of Content Design & Management
3 Semester Credit Hours (3 Lecture Hours)
Survey of principles and practices of content design and management in digital contexts. Students will be introduced to rhetorical content practices and professions, explore the relationship between theory and practice, and be introduced to issues and topics in literature from writing studies and technical and professional communication.

WRIT 5304 Methods of User-Centered Design
3 Semester Credit Hours (3 Lecture Hours)
Study of theory and methods of user-centered design. Practice in fundamental techniques of usability and participatory research. Students will learn how to plan, conduct, and report on usability tests and will be able to describe the value case for user-centered design and development.

WRIT 5334 Information and Data Literacy
3 Semester Credit Hours (3 Lecture Hours)
Provides students the opportunity to study and apply how to locate, evaluate, participate in, and circulate information through expanding digital content and platforms. Students learn to evaluate and communicate across multiple audiences and disciplines through multiple digital platforms. Students will interpret data in the context of data visualization, data storytelling, and data mapping.

WRIT 5350 Content Management
3 Semester Credit Hours (3 Lecture Hours)
Provides students with general knowledge of the lifecycle and governance of digital content management, covering areas from creation to permanent storage or deletion. Students will learn various platforms for Content Management Systems (CMS) used for Enterprise Content Management (ECM) and Web Content Management (WCM). Introductions to ECM and WCM provide students with the knowledge to work as Content Managers in both business (ECM) and with websites (WCM).

WRIT 5351 Repurposing Business Documents for Digital Environments
3 Semester Credit Hours (3 Lecture Hours)
Provides students with the opportunity to create enterprise digital projects geared towards working in a professional or business environment. Course focuses on the conversion to and creation of digital documents and forms such as invoices, research reports, and contracts that are sensitive to ethical, professional and cultural issues using user-centered design.

WRIT 5352 Working with Subject Matter Experts in Digital Environments
3 Semester Credit Hours (3 Lecture Hours)
Provides students with opportunities to learn about and learn how to communicate and collaborate with Subject Matter Experts in networked environments, cross-functional teams, and distributed work environments. Focus will be on planning and managing digital projects designed to communicate technical information to diverse audiences. Course focuses on the conversion of technical information and/or specification to digital documents that are sensitive to ethical, professional and cultural issues using user-centered design.

WRIT 5353 Genres: Reports and Proposals
3 Semester Credit Hours (3 Lecture Hours)
Study of reports and proposals across multiple genres and digital platforms for discipline-specific purposes. Provides application of multiple genre conventions and document designs for specific audiences and purposes.

WRIT 5354 Genre: Manuals & Instructional Design
3 Semester Credit Hours (3 Lecture Hours)
Study of instructional content across multiple genres and digital platforms, focusing on design, usability, collaborative writing, Course Management Systems (CMS), and single sourcing.

WRIT 5355 Content Design and Social Media
3 Semester Credit Hours (3 Lecture Hours)
Develops a practical understanding of the social web and writing for digital-first platforms. Students compose across different social media platforms and explore theoretical concepts to examine ways these tools are evolving. This course may include introductions to new media, new media culture, or new media literacies.

WRIT 5356 Topics in Digital Content and Management
3 Semester Credit Hours (3 Lecture Hours)
Study of theory and practical issues related to developing content that is adaptable and intelligent, focusing on topics such as Accessibility and Disability, Document Design, Visual Rhetoric, Online Publishing, Editing and Style. Focuses on content as conditional, computable, networked and commodified. May be repeated twice for credit when topic and instructor vary.

WRIT 5357 Intercultural/Transcultural Rhetorics
3 Semester Credit Hours (3 Lecture Hours)
Develop a global perspective on rhetoric and prepare students to create digital content for culturally and linguistically diverse audiences for various purposes. Students produce digital writing that is reflexive about culture and cultural identity.

WRIT 5358 Topics in Discourse, Society, and Technology
3 Semester Credit Hours (3 Lecture Hours)
Study of the theoretical and practical effects of digital networks and digitally mediated knowledge management on discourse, society, and technology. Students will work on a relevant scholarly / practical problem, such as Working in Medical Cultures or Writing about Science. May be repeated when topic and instructor vary.
WRIT 5359  Digital Literacies  
3 Semester Credit Hours (3 Lecture Hours)  
Survey of how reading and writing practices change in digital environments, the broad range of issues related to digital rhetorics and culture, and provides analysis and theory of digital composition. This course offers students opportunities to work flexibly across various digital platforms.

WRIT 5374 Transmedia Storytelling  
3 Semester Credit Hours (3 Lecture Hours)  
Provides practice in using 21st century storytelling methods in professional contexts with an emphasis on creating content for distribution across multiple platforms and formats.

WRIT 5394 Digital Project in an Authentic Setting  
3 Semester Credit Hours (3 Lecture Hours)  
This course serves as the Exit Requirement for the program. Applied experience in which students will develop a digital project in an authentic setting building on previous coursework. To be offered every Summer Session.

Faculty, Regents, and Administration

Graduate Faculty
(As of June 2020)

Araiza, Isabel  
Associate Professor of Sociology; B.A., Texas A&M University-Corpus Christi; M.A., Ph.D., Boston College.

Aubrey, Meg  
Assistant Professor of Art and Foundations Coordinator; B.F.A., Rhode Island School of Design; M.F.A., Savannah College of Art and Design.

Avsar, Veysel  
Associate Professor of Economics; B.A., Istanbul University; M.A., Ph.D., Florida International University.

Babbili, Anantha S.  
Professor of Communication; B.S., B.J., Osmania University (India); M.A., University of Oklahoma; Ph.D., University of Iowa.

Bajuyo, Leticia  
Assistant Professor of Art Sculpture; B.F.A., University of Notre Dame; M.F.A., University of Tennessee, Knoxville.

Baldwin, Sara  
Associate Professor of Nursing and Associate Dean, College of Nursing and Health Sciences; B.S.N., University of Utah; M.S., University of Portland; Ph.D., University of Nebraska.

Banda, Rose M.  
Assistant Professor of Educational Leadership; B.A., M.E., University of Texas at San Antonio; Ph.D., Texas A&M University-College Station.

Belkhouche, Mohammed  
Professional Assistant Professor of Computer Science; B.S., Tlemcen University; M.S., Tulane University; Ph.D., University of North Texas.

Benibo, Bilaye R.  
Professor of Sociology; OND, College of Science and Engineering, Port-Harcourt, Nigeria; B.Sc., M.Sc., University of Lagos, Nigeria; Ph.D., Washington University, St. Louis U.S.A.

Bernhardt, Ross  
Professor of Music; B.S., University of Missouri; M.A., University of North Carolina; Ph.D., Michigan State University.

Besonen, Mark R.  
Assistant Professor of Earth System Science; B.S., Tufts University; M.S., University of Minnesota; Ph.D., University of Massachusetts.

Billiot, Eugene J.  
Professor of Environmental Chemistry; B.S., Nicholls State University; Ph.D., Louisiana State University.

Billiot, Fereshteh Haddadian  
Professor of Chemistry; B.S., Sharif University of Technology, Iran; M.S., Ball State University; Ph.D., Louisiana State University.

Bippert, Kelli  
Assistant Professor of Literacy Education; B.A., M.A., Ph.D., University of Texas at San Antonio.

Bland, Eugene  
Associate Professor of Finance; B.A., M.A., University of South Florida; Ph.D., University of Mississippi.

Blanke, David  
Professor of History; B.S., University of Kentucky; M.A., Ph.D., Loyola University, Chicago.

Bogucki, Darek  
Associate Professor of Physical Oceanography; B.S., Gdansk Technical University, Poland; M.S., Dallhousie University; Ph.D., University of Southern California.

Bonnette, Randy  
Associate Professor of Kinesiology; B.S., M.Ed., Northwestern State University; Ed.D., Texas A&M University.

Botello-Zamarro, Raquel  
Assistant Professor of Psychology; B.A., M.S., Ph.D., Iowa State University.

Bowden, Randall  
Professor of Educational Leadership-Higher Education Administration; B.A., Colorado Christian College; M.A., University of Colorado; Ph.D., University of Denver.

Bray, Christell O.  
Associate Professor of Nursing; B.S.N., M.S.N., University of Texas at Austin; Ph.D., University of Texas – Medical Branch Galveston.

Brouillard, Pamela J.  
Professor of Psychology and Chair, Department of Psychology and Sociology; B.A., University of Wisconsin-Madison; Psy.D., Baylor University.

Bruun, Cilia Faye  
Associate Professor of Curriculum and Instruction; B.A., University of Texas at Austin; M.S., Ed.D., Texas A&M University-Corpus Christi.

Buck, Gregory  
Associate Professor of Biology; B.S., Morehouse College; M.S., Ph.D., Georgia State University.

Byus, Kent  
Professor of Marketing; B.B.A., University of Texas at El Paso; M.B.A., Texas Tech University; Ph.D., New Mexico State University.
Cammarata, Kirk Vincent
Associate Professor of Biology; B.A., University of Maryland-Baltimore County; Ph.D., University of Kentucky.

Causgrove, Tim
Associate Professor of Chemistry; B.S., University of Nebraska; Ph.D., Iowa State University.

Changchit, Chuleeporn
Professor of Management Information Systems; B.S., Assumption University, Bangkok, Thailand; L.L.B., Ramkhamhaeng University, Bangkok, Thailand; M. S., Ph.D., University of Kentucky.

Chen, Baohua
Professional Assistant Professor of Mathematics; B.S., Lanzhou University; M.S., Institute of Atmospheric Physics, Chinese Academy of Science; Ph.D., Illinois Institute of Technology.

Comparini, Lisa
Associate Professor of Psychology; B.A., Austin College; M.A., Ph.D., Clark University.

Concannon, Kevin
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Reese, Elizabeth
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Rivera, Esmeralda
Adjunct Graduate Faculty; B.S.N., F.N.P, The university of Texas-Pan American; M.S.N., A.N.P, The University of Texas at Houston.

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Rossell, Debra
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Sample, Janice
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Simmons, Steven
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Smith, Victoria
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Sukauskaite, Audra
Special Appointment;

Thomas, Andrew
Special Appointment; B.S., McGill University; M.S., Ph.D., University of British Columbia.

Thornberry, Amy
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Torres, Judge Amanda Nicole
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Vega, Robert
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Vela, Norma Vilches
Clinical Assistant Professor of Nursing; BSN, University of Texas, Austin; MSN, University of Phoenix.

Winemiller, Kirk
Special Appointment; B.A., M.S., Miami University-Oxford Ohio; Ph.D., University of Texas.

Wood, Tony
Special Appointment; A.S., Del Mar College; B.S., Corpus Christi State University; MS, American Military University, American Public University System.
Emeritus Faculty and Administrative Officers
Since 1994 Texas A&M University-Corpus Christi has awarded emeritus status to distinguished former faculty members and administrators in recognition of significant contributions to the University. Many emeritus faculty members and administrators continue to serve the University during their retirement.

Emeriti Faculty (http://academicaffairs.tamucc.edu/faculty_affairs/honorsandawards.html)
Regents Professors (http://academicaffairs.tamucc.edu/faculty_affairs/honorsandawards.html)

Graduate Council
The purpose of the Graduate Council is to consider all matters relating to graduate programs at Texas A&M University-Corpus Christi and to recommend practices and policies that enhance the quality of the University's graduate programs. The Graduate Council serves as the advisory body to the Graduate Dean. The membership is available here.

The Texas A&M University System Board of Regents
Board of Regents (https://www.tamus.edu/regents/bios/)

Administration
Administration (http://www.tamucc.edu/about/administration/officers.html)

Appendices
A: Glossary
Admission
The process of being brought into the University. A student is not considered for admission until all specified forms and fees have been received.

Census Date
The day, each term, on which official calculations are determined. For semesters it is the 12th class day, and for summer terms the 4th class day. Registration and Adds may not occur after this date.

Class Days
The days, Monday through Friday, during which the University is in session; not the days on which an individual class meets.

Degree Student
One admitted to a degree program.

Drop
The process of terminating enrollment in one or more classes while remaining enrolled for at least one class for the same semester. A fee is charged for dropping a class after the term has started.

Full Time
A degree-seeking undergraduate attempting 12 or more semester hours in a semester. A degree-seeking graduate student attempting 9 semester hours in a semester.

GPA
Grade Point Average. Please check elsewhere in this catalog for method of calculation.

Graduation
The ceremonial completion of a degree program. The degree is not awarded until all academic requirements are certified as completed. The student initiates application for graduation at point of registration for last term of study. Application must be processed for each attempt.

Graduate Student
A student who holds a baccalaureate degree and is enrolled in a graduate program of study.

Hold
A note placed in a student record which restricts a particular activity. Only the office which places a hold can remove it.

Late Registration
A period beginning with the first day of classes and ending on or before the census date during which registration may occur. Special permission may be required. A late registration fee is assessed.

Matriculation
The initial registration as a degree-seeking student toward a particular degree. A student matriculates once for each degree.

Non-Degree Student
One taking classes without the expectation of receiving a degree. A nondegree student is neither part time nor full time, and is not classified as freshman, sophomore, junior, or senior.

Pre/Co Requisite
A requirement that must be completed before/at the same time a course may be attempted.

Registration
A requirement that must be completed before/at the same time a course may be attempted.

Restricted Course
One for which admission is limited to a particular classification of student. A student who has been enrolled in error can be removed administratively.

Transcript
A record of a student's academic history at the University. It is prepared by the Office of Admissions and Records. Please check with that office for preparation schedule and fees.

Withdrawal
The process of dropping all classes for a given term. A check-out process is involved, and the student is not associated with the University until the student seeks reinstatement for a subsequent term.
## B: Course Abbreviations

The University offers undergraduate courses in a variety of subjects. The following table lists

1. the undergraduate subjects offered,
2. their abbreviations or course prefixes,
3. the colleges or units in which they are taught, and
4. the page numbers.

The prefixes are used in course listings in this catalog and the semester class schedule.

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<tr>
<th>Subject</th>
<th>Prefix</th>
<th>College or Unit</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ACCT</td>
<td>Business</td>
</tr>
<tr>
<td>Anthropology</td>
<td>ANTH</td>
<td>Liberal Arts</td>
</tr>
<tr>
<td>Art</td>
<td>ARTS</td>
<td>Liberal Arts</td>
</tr>
<tr>
<td>Astronomy</td>
<td>ASTR</td>
<td>Science and Engineering</td>
</tr>
<tr>
<td>Bilingual/ESL/Multicultural</td>
<td>BIEM</td>
<td>Education and Human Development</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL</td>
<td>Science and Engineering</td>
</tr>
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<td>Biomedical Sciences</td>
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<td>Science and Engineering</td>
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<tr>
<td>Business Administration</td>
<td>BUSI</td>
<td>Business</td>
</tr>
<tr>
<td>Business Law</td>
<td>BLAW</td>
<td>Business</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM</td>
<td>Science and Engineering</td>
</tr>
<tr>
<td>Coastal and Marine System Science</td>
<td>CMSS</td>
<td>Science and Engineering</td>
</tr>
<tr>
<td>Communication</td>
<td>COMM</td>
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<tr>
<td>Computer Science</td>
<td>COSC</td>
<td>Science and Engineering</td>
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<tr>
<td>Counselor Education/Educational Psychology</td>
<td>CNEP</td>
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<tr>
<td>Criminal Justice</td>
<td>CRIJ</td>
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</tr>
<tr>
<td>Dance</td>
<td>DANC</td>
<td>Liberal Arts</td>
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<tr>
<td>Early Childhood Education</td>
<td>ECED</td>
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<tr>
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</tr>
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<td>Education/Student Teaching</td>
<td>EDUC</td>
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<tr>
<td>Educational Administration</td>
<td>ECED</td>
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<tr>
<td>Educational Curriculum &amp; Instruction</td>
<td>EDCI</td>
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<tr>
<td>Educational Foundations</td>
<td>EDFN</td>
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<tr>
<td>Educational Leadership</td>
<td>EDLD</td>
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<tr>
<td>Educational Technology</td>
<td>ETEC</td>
<td>Education and Human Development</td>
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<td>Engineering</td>
<td>ENGR</td>
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<tr>
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</tr>
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<td>English</td>
<td>ENGL</td>
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<tr>
<td>Environmental Science</td>
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<td>Science and Engineering</td>
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<tr>
<td>Finance</td>
<td>FINA</td>
<td>Business</td>
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<tr>
<td>Fisheries and Mariculture</td>
<td>FAMA</td>
<td>Science and Engineering</td>
</tr>
<tr>
<td>French</td>
<td>FREN</td>
<td>Liberal Arts</td>
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<td>Geographic Information Science</td>
<td>GISC</td>
<td>Science and Engineering</td>
</tr>
<tr>
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<td>GEOG</td>
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<tr>
<td>Geology</td>
<td>GEOL</td>
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<td>Geospatial Surveying Engineering</td>
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<td>German</td>
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<td>HLTH</td>
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<td>Health Care Administration</td>
<td>HCAD</td>
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<tr>
<td>Health Sciences</td>
<td>HLSC</td>
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<td>HONR</td>
<td>Honors Program</td>
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<td>Kinesiology</td>
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<td>Education and Human Development</td>
</tr>
<tr>
<td>Management</td>
<td>MGMT</td>
<td>Business</td>
</tr>
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<td>Management Information Systems</td>
<td>MISY</td>
<td>Business</td>
</tr>
<tr>
<td>Marketing</td>
<td>MKTG</td>
<td>Business</td>
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<tr>
<td>Mathematics</td>
<td>MATH</td>
<td>Science and Engineering</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>MEEN</td>
<td>Science and Engineering</td>
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<td>Mexican American Studies</td>
<td>MXAS</td>
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<tr>
<td>Military Science</td>
<td>MSCI</td>
<td>Education and Human Development</td>
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<tr>
<td>Music</td>
<td>MUSI</td>
<td>Liberal Arts</td>
</tr>
<tr>
<td>Music (ensemble)</td>
<td>MUEN</td>
<td>Liberal Arts</td>
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<tr>
<td>Music (applied)</td>
<td>MUAP</td>
<td>Liberal Arts</td>
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<tr>
<td>Nursing</td>
<td>NURS</td>
<td>Nursing and Health Sciences</td>
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<td>Operations Management</td>
<td>OPSY</td>
<td>Business</td>
</tr>
<tr>
<td>Operations Research/Management Science</td>
<td>ORMS</td>
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<td>Philosophy</td>
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<td>Physics</td>
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<td>Science and Engineering</td>
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<td>Political Science</td>
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<td>Liberal Arts</td>
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<tr>
<td>Psychology</td>
<td>PSYC</td>
<td>Liberal Arts</td>
</tr>
<tr>
<td>Public Administration</td>
<td>PADM</td>
<td>Liberal Arts</td>
</tr>
</tbody>
</table>
C: Drug and Alcohol Abuse Prevention Program

Texas A&M University-Corpus Christi is committed to a campus-wide plan to educate students and employees about alcohol and drug issues, discourage the irresponsible use of alcoholic beverages, and prohibit the unlawful use, possession or distribution of controlled substances. The University will act to ensure compliance with all local, state, and federal laws, System policies and University rules and procedures dealing with controlled substances, illicit drugs, and the use of alcohol. The Code of Conduct provides information on alcohol and drug rules and university sanctions. To review the Student Code of Conduct online, go to http://judicialaffairs.tamucc.edu.

In effort to ensure that each student is knowledgeable about drugs and alcohol, all incoming students under age 21 are required to complete an online alcohol education course in their first semester of enrollment. For more information, go to http://iadapt.tamucc.edu.

To implement an effective drug and alcohol abuse prevention plan, the University will use both formal and informal channels of communication to:

1. disseminate the standards of conduct that govern student and employee behavior;
2. communicate legal sanctions, as well as university disciplinary sanctions that can result from violations, and
3. distribute information about the health risk associated with use and abuse.

The campus will make available referrals to local treatment centers and counsels programs. These referrals will be made within a supportive, confidential, and non-punitive environment under the auspices of the University Health Center, Counseling Center, and/or Human Resources.

Alcohol and Drug Rules

The University prohibits the use or possession of alcoholic beverages on campus by any individual under the age of 21. Failure to comply with this rule violates state law and the rules governing student conduct and will subject the individual to disciplinary action.

Students of lawful age under Texas Statutes may possess and/or consume alcoholic beverages in the privacy of their rooms or apartments in campus residence facilities. However, residence hall occupants and their guests must comply with state and local statutes concerning possession, sale, and consumption of alcoholic beverages. Any use of alcoholic beverages should be in moderation. Therefore, bulk quantities of alcohol (kegs, cases, party balls, etc.) are not allowed on campus or in residence facilities. Loud or disruptive behavior, interference with the cleanliness of residence facilities, or drinking habits that are harmful to the health or education of an individual or those around him/her are reasons for appropriate disciplinary action by the University.

With limited exceptions, the possession of open containers and the consumption of beer, wine, and/or distilled spirits is prohibited in all public areas of the campus. For the purposes of this rule, residence hall balconies and patios are considered public areas. Although students of lawful age may possess and consume alcoholic beverages in the privacy of their rooms or apartments, all alcoholic beverages transported through public areas on the University grounds and in residence facilities must be unopened and concealed.

All members of the University community are expected to abide by state and federal laws pertaining to controlled substances and illicit drugs. Standards of conduct strictly prohibit the unlawful manufacture, distribution, possession or use of controlled substances, illicit drugs or drug paraphernalia on University property, at University-sponsored activities, and/or while on active duty. Individuals may use prescription medications that are medically necessary and prescribed by a licensed physician.

While the University has limited jurisdiction when alcoholic beverages and illegal drugs are consumed off-campus, members of the University community are encouraged to consider these regulations as a guideline for responsible and lawful behavior. Any recognized student organization that plans to include alcohol at an official function off-campus must obtain permission from Student Activities under the University risk management guidelines. Failure to comply with this requirement will be reason for appropriate disciplinary action by the University.

University Sanctions

Students suspected or found in violation of University drug or alcohol rules and regulations will be notified in writing to appear for a hearing with a judicial affairs officer. Procedures for hearings are outlined in the Student Code of Conduct.

A student found responsible for violating the rules and regulations will be subject to sanctions commensurate with the offenses and any aggravating and mitigating circumstances. Disciplinary actions in cases involving alcohol and drug-related violations result in sanctions up to and including suspension or expulsion from the University and referral for prosecution. Any disciplinary action imposed by the University may precede and be in addition to any penalty imposed by an off-campus authority. Students will be advised of available alcohol and drug counseling at the University Counseling Center and/or referred to a community organization. The University Counseling Center and the University Health Center can provide assistance and referral to appropriate community agencies.

Advisors and faculty members have the responsibility to supervise student activities on all trips. Faculty members should inform students that actions violating state laws, local regulations, and University rules regarding alcohol and drugs will not be permitted on any University trip. Students who violate these guidelines regarding alcohol and drug use on field trips will be subject to disciplinary action.
Health Risks
Alcohol abuse can cause many health-related problems. Approximately 150,000 deaths annually are directly related to alcohol abuse and/or alcoholism. Alcohol abuse lead to alcoholism, premature death through overdose, and complications involving the brain, heart, liver, and many other body organs. Alcohol abuse is a prime contributor to suicide, homicide, motor vehicle deaths, and other accidental causes of death.

Alcohol abuse also causes liver disease, gastritis, and anemia. Alcohol abuse interferes with psychological functions, causes interpersonal difficulties, and is involved in many cases of child abuse. Alcohol abuse also disrupts occupational effectiveness and causes legal and financial problems. Alcohol used in any amount by a pregnant woman can cause birth defects.

The abuse of illicit drugs can result in a wide range of health problems. In general, illicit drug use can result in drug addiction, death by overdose, death from withdrawal, seizures, heart problems, infections (i.e., HIV/AIDS, hepatitis), liver disease, and chronic brain dysfunctions. Other problems associated with illicit drug use include psychological dysfunctions such as memory loss, thought disorders (i.e., hallucinations, paranoia, psychosis), and psychological dependency. Additional effects include occupational, social, and family problems as well as a reduction in motivation. Drug use by a pregnant woman may cause addiction or health complications in her unborn child.

Campus Resources
A&M-Corpus Christi offers a variety of programs to promote healthy lifestyles and substance-free alternatives. Students can become involved with the planning of drug and alcohol education programs by contacting Student Engagement & Success at 361-825-4284.

University Counseling Center - The University Counseling Center offers students individual counseling, educational programming and support groups focused on alcohol and other drug use, abuse and addiction. An Alcohol Education Program for Minors is also available for minors cited/charged with alcohol-related offenses (MIP, DUI, and Public Intoxication). For more information, call 361-825-2703 or visit the web site at http://counseling.tamucc.edu.

University Health Center - The University Health Center can provide information about the health risks of drug and alcohol abuse, as well as general medical care for students. For more information, call 361-825-2601.

I-TEAM - I-TEAM Peer Educators strive to educate the campus community and promote healthy behaviors related to alcohol and drugs. The group facilitates a host of activities year round. Call 361-825-4284 for more information.

University Police Department - The University Police Department educates the University community about drug and alcohol issues as well as enforces local, state and federal law. For more information, call 361-825-4444.

Annual Security Report - This report includes statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by A&M-Corpus Christi; and on public property within, or immediately adjacent to and accessible from, the campus. The report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. Obtain a copy of this report by contacting the University Police Department 361-825-4444 or by accessing the following web site: https://police.tamucc.edu/cleryact/campusSecurityAct.html.

The Biennial Review of the Drug and Alcohol Abuse Prevention Program is conducted to determine program effectiveness and consistency of policy enforcement. Obtain a copy of this report at http://iadapt.tamucc.edu.

D: Hazing
Hazing is strictly prohibited and the University will investigate any claim of hazing and take appropriate action. Hazing is defined as:

Any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with other, 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 an organization. The term includes, but is not limited to:

- Any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity.
- Any type of physical activity, such as sleep deprivation, exposure to the elements, and confinement in a small space, calisthenics, or other activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.
- Any activity involving consumption of a food, liquid, alcoholic beverage, liquor, drug, or other substance that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.
- Any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame, or humiliation, that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institutions rather than submit to acts described in this subdivision.
- Any activity that induces, causes, or requires the student to perform a duty or task that involves a violation of the Texas Education Code Sec. 37.152 and 37.153.

The intent of the act or the consent or cooperation of the hazing recipient will not constitute a defense. The University may charge an individual and/or the officers of a recognized organization with responsibility for the hazing act(s) both on or off-campus. Hazing is also a violation of Texas state law. See the Texas Education Code, sections 37.151 and 51.936 at www.stophazing.org/texas. In summary, a person may be found guilty of criminal conduct for hazing, encouraging hazing, permitting hazing, or having knowledge of the planning of hazing incidents and failing to report in writing his/her knowledge to the Dean of Students or other appropriate institutional official.

Texas law provides any person reporting a specific hazing incident to the Dean of Students or other appropriate institutional official is immune from civil and criminal liability unless the report is in bad faith or malicious.

For additional information on hazing, students may refer to the Student Code of Conduct, which can be found online at judicialaffairs.tamucc.edu, or contact the Student Conduct & Community Standards directly.
E. Student Travel Rule

1. Overview
Texas A&M University–Corpus Christi is supportive of student travel and recognizes that the safety of its students is of the utmost importance. The requirements outlined below apply to student travel that is more than 25 miles from campus to an activity that is organized, sponsored and/or funded by the University or by an organization properly registered at the University. Students traveling on behalf of the University must obtain prior approval from the appropriate department. This rule applies to travel by car, truck, van, bus and airplane. It must be read in conjunction with University Procedure 13.04.99.C1.01, Student Travel Procedures.

2. Travel Safety Guidelines
During travel situations specified above, students must abide by the following safety guidelines. Drivers and passengers must abide by all federal and state laws. In accordance with State law, drivers and passengers must use seat belts or other available safety restraints.

1. Drivers and passengers must abide by all federal and state laws. In accordance with State law, drivers and passengers must use seat belts or other available safety restraints.
2. Drivers must possess a valid driver’s license that is appropriate for the classification of vehicle being driven.
3. Drivers, occupants, and their luggage should not exceed the vehicle manufacturer’s recommended capacity.
4. Operator fatigue should be considered when selecting drivers. On lengthy trips, alternate drivers should be used to avoid fatigue.

3. Vehicle Options
Listed below are the basic means of travel available to students:

1. Rental Vehicles: Students traveling using a rental vehicle must comply and abide with all University and rental provider rules, regulations, and stipulations.
2. Vans: Fifteen (15) passenger vans may be used; however, only (9) occupants, including the driver, may ride in the van. Nothing may be loaded on top of the van, and all cargo should be loaded evenly. Cargo limit must meet safety requirements. It is preferred that a University employee drive the van.
3. Personal Vehicles: The driver must have adequate motor vehicle insurance and the vehicle must meet all state safety and registration requirements.
4. Commercial Carrier (airplane, bus, train, etc.) Students traveling by commercial transportation must comply with all rules specific to the carrier. This includes laws and regulations regarding carry-on luggage and weight restrictions.

4. Additional Standards
This rule is considered to be a minimum standard. Departments, units, and/or student organizations may mandate additional standards as deemed necessary to address the unique requirements associated with a particular type of student travel.
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