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Welcome to the 2018-2019 Prairie View A&M University Online Catalog

The Catalog contains all programs offered by Prairie View A&M University, providing enrolled students with the information needed regarding their chosen academic path and helping prospective students make important enrollment decisions.

DISCLAIMER

Since University curricula, programs, and policies cannot be static in a changing environment, the information in this catalog is subject to change by the University at any time. Accordingly, neither this catalog nor any parts of it may be relied upon as a contract. The University may reproduce or modify this catalog, or parts of it, for distribution in other formats (for example, in other formats for computer access, or in college, school, or academic department publications). As a result, students, applicants, and other users of this catalog should consult with appropriate University Offices to verify the current text or status of policies, programs, descriptions of curricula, or other information in this catalog.

Prairie View A&M University does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. Ms. Alexia Taylor, Title IX Coordinator, has been designated to handle inquiries regarding the non-discrimination policies. Ms. Taylor can be reached at P.O. Box 519; MS 1100 A.I Thomas Bldg. Suite 102 Prairie View, Texas 77446 or by calling 936-261-2123. For further information on notice of non-discrimination, visit http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm for the address and phone number of the office that serves your area, or call 1-800-421-3481.

University Online Catalogs

2018-2019 Online Catalog (http://catalog.pvamu.edu)
Greetings from Prairie View A&M University!!

Prairie View A&M University (PVAMU) was founded in 1876, as only the second public institution of higher education in the State of Texas. Affectionately referred to as, “the Hill” or as “Pantherland,” PVAMU aims to remain true to its motto: “Prairie View produces productive people.”

Today, PVAMU is one of the state’s most ethnically and geographically diverse institutions. It enrolls students from twenty-three states and the U.S. Virgin Islands and from thirty-nine countries. Its core values of access and quality, accountability, diversity, leadership, relevance and social responsibility undergird the University’s mission as a land grant institution and as an institution designated by the Texas constitution as an “institution of the first class.”

At Prairie View A&M University, students are able to build intellectual capital and cultivate greater personal maturity in a largely residential community. The value of in-class experiences is amply enhanced by a variety of co-curricular experiences, including international study and travel, paid and non-paid internships, civic engagement and leadership, and service learning. Highly qualified faculty and staff invest substantially in creating a learning environment that is responsive, invigorating, and intellectually challenging.

Ranked as a “best buy” institution and as one of the top colleges in Texas when both quality and cost are considered, PVAMU is an excellent choice. Though noted for programs that produce highly competitive graduates across the board, the university is especially well known for its preparation of engineers, scientists, nurses, architects, juvenile justice specialists, and business professionals.

This catalog is designed to present academic program offerings along with the rules, regulations, procedures, and essential support services students will use in navigating their educational journey. It is the University’s desire to make this guide increasingly more complete and user friendly.

As the University’s mission mandates, student success at PVAMU has been and continues to be directly linked to the presence of a highly qualified faculty and staff, many of whom include students in their research and scholarship. This connection between faculty and staff work and student learning provides a rich legacy and an immensely promising future.

Ruth J. Simmons, Ph.D.
President

General University Information

Prairie View A&M University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (1866 Southern Lane, Decatur, GA 30033-4097) as a comprehensive, public institution of higher education authorized to award Bachelor's, Master's and Doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Prairie View A&M University.

The University offers a broad range of academic programs through the following administrative units:

- The College of Agriculture and Human Sciences
- The School of Architecture
- The Marvin D. and June Samuel Brailsford College of Arts and Sciences
- The College of Business
- The Whitlowe R. Green College of Education
- The Roy G. Perry College of Engineering
- The College of Juvenile Justice and Psychology
- The College of Nursing
- The Graduate School

Though the University’s service area has generally extended throughout Texas and the world, the University's target service area includes the Texas Gulf Coast Region, i.e., Waller, Harris, Montgomery, Washington, Grimes, Fort Bend, Galveston, Jefferson, Chambers, Liberty, Colorado, Wharton, Brazoria, and Austin Counties; the rapidly growing residential and commercial area known as the Northwest Houston Corridor as noted in the original Texas Plan; and urban Texas centers likely to benefit from Prairie View A&M University's specialized programs and services in juvenile justice, business, architecture, teacher education, social work, and the food, agricultural and natural resource sciences. Prairie View A&M University is authorized to offer a number of undergraduate and graduate degree programs at distant sites.

In addition to Prairie View A&M University, The Texas A&M University System consists of Texas A&M University; Texas A&M University - Corpus Christi; Texas A&M International University; Texas A&M University - Kingsville; West Texas A&M University; Tarleton State University; Texas A&M University - Commerce; Texas A&M University - Texarkana; Texas A&M University Health Science Center; Texas A&M University-Central Texas; Texas A&M
Prairie View A&M University, the second oldest public institution of higher education in Texas, originated in the Texas Constitution of 1876. On August 14, 1876, the Texas Legislature established the “Agricultural and Mechanical College of Texas for Colored Youths” and placed responsibility for its management with the Board of Directors of the Agricultural and Mechanical College at Bryan. The A&M College of Texas for Colored Youths opened in Prairie View, Texas on March 11, 1878.

The University’s original curriculum was designated by the Texas Legislature in 1879 to be that of a “Normal School” for the preparation and training of teachers. This curriculum was expanded to include the arts and sciences, home economics, agriculture, mechanical arts and nursing after the University was established as a branch of the Agricultural Experiment Station (Hatch Act, 1887) and as a Land Grant College (Morrill Act, 1890). Thus began the tradition of agricultural research and community service, which continues today.

The four-year senior college program began in 1919 and in 1937, a division of graduate studies was added, offering master's degrees in agricultural economics, rural education, agricultural education, school administration and supervision, and rural sociology.

In 1945, the name of the institution was changed from Prairie View Normal and Industrial College to Prairie View University, and the school was authorized to offer, “as need arises”, all courses offered at the University of Texas. In 1947, the Texas Legislature changed the name to Prairie View A&M College of Texas and provided that “courses be offered in agriculture, the mechanics arts, engineering, and the natural sciences connected therewith, together with any other courses authorized at Prairie View at the time of passage of this act, all of which shall be equivalent to those offered at the Agricultural and Mechanical College of Texas at Bryan.” On August 27, 1973, the name of the institution was changed to Prairie View A&M University, and its status as an independent unit of The Texas A&M University System was confirmed.

In 1981, the Texas Legislature acknowledged the University’s rich tradition of service and identified various statewide needs which the University should address including the assistance of students of diverse ethnic and socioeconomic backgrounds to realize their full potential, and assistance of small and medium-sized communities and businesses in their growth and development.

In 1983, the Texas Legislature proposed a constitutional amendment to restructure the Permanent University Fund to include Prairie View A&M University as a beneficiary of its proceeds. The Permanent University Fund is a perpetual endowment fund originally established in the Constitution of 1876 for the sole benefit of Texas A&M University and the University of Texas. The 1983 amendment also dedicated the University to enhancement as an “institution of the first class” under the governing board of The Texas A&M University System. The constitutional amendment was approved by the voters on November 6, 1984.

In January 1985, the Board of Regents of The Texas A&M University System responded to the 1984 Constitutional Amendment by stating its intention that Prairie View A&M University become “an institution nationally recognized in its areas of education and research.” The Board also resolved that the University receive its share of the Available University Fund, as previously agreed to by Texas A&M University and the University of Texas.

In October 2000, the Governor of Texas signed the Priority Plan, an agreement with the U.S. Department of Education Office of Civil Rights to make Prairie View A&M University an educational asset accessible by all Texans. The Priority Plan mandates creation of many new educational programs and facilities. It also requires removing language from the Institutional Mission Statement which might give the impression of excluding any Texan from attending Prairie View A&M University.
Access And Quality

Prairie View A&M University will provide equal educational opportunity to increasing numbers of persons from unserved and underserved populations residing primarily among the economically and socially bypassed in the society; further, the University will provide educational programs designed to prepare all graduates to compete successfully in the graduate and professional schools as well as in the labor force.

Diversity

Prairie View A&M University will sustain its commitment to recruit, enroll, educate, and graduate students and to employ and advance faculty and staff without regard to age, ethnicity, gender, national origin, socioeconomic background, or educationally unrelated handicap; further, the University will offer challenges to both the academically talented and the under-prepared who arrive in college with ability, but without college-ready achievement.

Leadership

Prairie View A&M University will stimulate, initiate, and implement programs and services to both inspire and guide students, faculty, and staff in developing their self-confidence, self-discipline, and other requisites to becoming successful leaders in their professions and in their communities; further, the University will offer campus-based and distance education programs to enhance the life chances for persons in its service areas.

Relevance

Prairie View A&M University will respond to the need for highly literate, technologically competent graduates educated to excel in the 21st century work force; further, the University will extend the products of its research and service to address concerns and solve problems such as violence, abuse and misuse; drug and alcohol abuse; mental, physical, and psychological neglect; environmental injustice; and other forms of social dissonance that compromise the quality of life for the citizenry.

Social Responsibility

Prairie View A&M University will promote active participation in constructive social change through volunteerism, leadership, and civic action on the part of its faculty, staff, and students; further, the University will utilize channels available for influencing public policy on the local, state, national, and international levels.

Commitment To Excellence

Upon admission to and enrollment at Prairie View A&M University, a student - undergraduate and graduate - becomes a Panther Man or a Panther Woman and agrees to uphold a commitment:

To Excellence in Attitude
Exhibiting a positive desire to accept the challenges of college life, refusing to allow obstacles to impede progress toward future goals and aspirations.

To Excellence in Personal Management
Exhibiting highest respect for self and for the property and rights of others.

To Excellence in Work Ethic and Scholarship
Exhibiting determination that leads to meeting expectations of class attendance, course requirements, work-study position, student organizations, and other commitments; exhibiting dedication and persistence required to realize one's full academic potential.

To Excellence in Responsibilities for Peers
Exhibiting leadership among peers that openly repudiates violence, illicit drug use, possession of weapons, vulgarity, apathy, or any form of destructive, nonproductive behavior.

To Excellence in Professional Career Preparation
Exhibiting deliberate pursuit of professional and career readiness as evidenced by participation in student organizations, academic learning communities, athletics competition, career planning events, leadership training, graduate/professional school orientations, and other career preparation activities.

To Excellence in Community Membership
Exhibiting responsible citizenship; taking social and political positions that advance the common good; contributing skills and talents in a manner that promotes the general welfare of local, state, regional, national, and international communities.

To Excellence in Honesty, Integrity and Character
Exhibiting commitment to being truthful in the conduct of personal and academic matters, resisting any form of deceit, malfeasance, misrepresentation or fraudulence; exhibiting a high standard of moral conduct as evidenced by one's being fair, dependable, and ever mindful of how one's behavior affects the greater good.
Rules And Procedures On Discrimination, Harassment, And Privacy

Prairie View A&M University is a member of the Texas A&M University System. The A&M System is committed to equal employment, educational programs and activities, and a discrimination free workplace and learning environment. As such, the University complies with all applicable state and federal laws and regulations on discrimination, harassment and privacy. These laws and regulations include Title V of the Rehabilitation Act of 1973; Title VI of the Civil Rights Act of 1964; Title VII of the Civil Rights Act of 1964; Title IX of the Education Amendment Act of 1972; and the Family Educational Rights and Privacy Act of 1974. For more details, please consult the Office of Equal Opportunity or the Office of Human Resources, Prairie View A&M University.

Equal Opportunity Policy Statement

Title VI & VII of the Civil Rights Act of 1964

Prairie View A&M University is fully committed to and promotes equal opportunity for all. This commitment by the University includes equal employment and educational opportunity, affirmative action, and program accessibility. The Office of Equal Opportunity is responsible for the Equal Opportunity Programs of the University.

Program Accessibility

Title VI of the Civil Rights Act of 1964

No otherwise qualified individual shall, on the basis of race, color, sex, religion, national origin, age, disability or veteran status, be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any program or activity provided by the University in accordance with applicable laws and regulations. The University Office of Equal Opportunity is responsible for the Title VI Program of the University.

Title IX of The Education Amendment Act of 1972

Prairie View A&M University does not discriminate against persons on the basis of sex. Individuals will not be excluded from participation in, be denied the benefits of, or be subjected to discrimination on the basis of sex under any educational program, service or activity offered by the University. The University Office of Equal Opportunity is responsible for the Title IX Program of the University.

Title V of the Rehabilitation Act of 1973

In compliance with Title V of the Rehabilitation Act of 1973 and Sections 501, 502, 503, and 504, Prairie View A&M University prohibits the imposition of rules or restrictions that have the effect of limiting participation of students with disabilities in educational programs or activities. Appropriate academic accommodations and reasonable modifications to policies and practices are made to assure that students with disabilities have the same opportunities as other students to be successful on the basis of their intellectual abilities and academic achievements. The Office of Student Affairs is responsible for the Disability Services programs for all students.

Right to Privacy


Official records are not opened to the public and will not be divulged without the consent of the student. Minors (those under 18 years of age) attending the university have the same right to privacy of their records as adult students.

The Buckley Amendment provides that certain directory-type information may be made public on all students unless an individual student states in writing (within the first twelve class days) to the Office of the Registrar that they do not wish that information to be released. Such directory-type information may include (but is not limited to) name, address, telephone number, date and place of birth, major, participation in activities, dates of attendance, and degrees, and awards received.

Academic information is confidential. However, in order for the University to serve students, academic information is shared with University administrative offices and academic advisers for the purpose of providing services to the student.

Information Bulletin

2018-2019

Prairie View A&M University

Published October 2018

The online version of the Prairie View A&M University Information Bulletin is the official version. This bulletin was last updated on September 13, 2018.

Disclaimer
The provisions of this document do not constitute a contract, expressed or implied, between any applicant, student, or faculty member and Prairie View A&M University or The Texas A&M University System. Prairie View A&M University and The Texas A&M University System reserve the right to withdraw courses at any time and to change fees, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirements affecting students, staff and faculty. The policies, regulations and procedures stated in this bulletin are subject to change without prior notice, and changes become effective whenever the appropriate authorities so determine and may apply both to prospective students and those currently enrolled. University rules and procedures are required to be consistent with policies adopted by The Texas A&M University System Board of Regents and are in compliance with state and federal laws. This document is a general information publication only, and it does not contain all regulations that relate to students.

While every effort is made to assure that information is accurate, Prairie View A&M University does not assume responsibility for any misrepresentation which might arise through error in the preparation of this or any other of its catalogs. To be assured of accuracy of information, students must regularly consult current publications and academic advisors.

The Texas A&M University System

Board Of Regents

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<td>Elaine Mendoza</td>
<td>Vice Chairman</td>
<td>San Antonio</td>
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<tr>
<td>Phil Adams</td>
<td>Member, Board of Regents</td>
<td>Bryan/College Station</td>
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<td>Robert L. Albritton</td>
<td>Member, Board of Regents</td>
<td>Fort Worth</td>
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<td>Anthony G. Buzbee</td>
<td>Member, Board of Regents</td>
<td>Houston</td>
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<td>Morris E. Foster</td>
<td>Member, Board of Regents</td>
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<td>Tim Leach</td>
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<td>Bill Mahomes</td>
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<td>Cliff Thomas</td>
<td>Member, Board of Regents</td>
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<td>Ervin Bryant</td>
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System Administration

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<tr>
<td>John Sharp</td>
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<tr>
<td>Billy Hamilton</td>
<td>Deputy Chancellor and Chief Financial Officer</td>
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<tr>
<td>Jon Mogford</td>
<td>Vice Chancellor for Research</td>
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<tr>
<td>Ray Bonilla</td>
<td>General Counsel</td>
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<tr>
<td>James R. Hallmark</td>
<td>Vice Chancellor for Academic Affairs</td>
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<td>Maria L. Robinson</td>
<td>Chief Investment Officer and Treasurer</td>
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<tr>
<td>Philip Ray</td>
<td>Vice Chancellor for Business Affairs</td>
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<tr>
<td>Charlie Hrnncir</td>
<td>Chief Auditor</td>
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<tr>
<td>Mark Stone</td>
<td>Chief Information Officer</td>
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<td>Laylan Copelin</td>
<td>Vice Chancellor for Marketing and Communications</td>
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<td>Carrie L. Byington</td>
<td>Vice Chancellor for Health Services</td>
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<td>M. Katherine Banks</td>
<td>Vice Chancellor of Engineering and National Laboratories</td>
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<td>Patrick Stover</td>
<td>Vice Chancellor &amp; Dean of Agriculture and Life Sciences</td>
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<td>Stanton Calvert</td>
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<td>Frank Ashley</td>
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Prairie View A&M University

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<td>Ruth J. Simmons</td>
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<td>James M. Palmer (Interim)</td>
<td>Provost and Senior Vice President for Academic Affairs</td>
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<tr>
<td>Corey S. Bradford, Sr.</td>
<td>Senior Vice President for Business Affairs</td>
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<tr>
<td>Ali Fares (Interim)</td>
<td>Vice President for Research</td>
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</tbody>
</table>
The Academy for Collegiate Excellence and Student Success (ACCESS) is a “bridge to college” program that provides intensive preparation and support for students who want to be successful in college. ACCESS has three key strategies: intensive academic enhancement, effective advisement coupled with centralized support services and a structured, academically-focused residential environment. The curriculum for the “academic boot camp” concentrates on learning strategies which address the skill areas of Problem Solving and Critical Thinking. The students attend daily classes in Composition, Critical Thinking, Math, Reading, Problem Solving and nightly study halls and specialized workshops. ACCESS students participate in leadership training, social/personal development activities and cultural enrichment experiences. These activities broaden students’ horizons and require them to utilize the critical thinking and problem solving skills they are developing in the classroom. Since 2006 ACCESS has included service learning in its pedagogy. The students participate in common reading-writing assignments that center around social problems in America today and perform services related to these areas. Student reflection is a critical piece. ACCESS promotes the concept that “A good college affirms that service to others is a central part of education.” (The Carnegie Foundation) ACCESS students continue to surpass the average retention and graduation rates of their peers at PVAMU.

Participants must be residents of the state of Texas and recent high school graduates or GEDs. Participation is competitive. Students must complete an entrance survey and participate in an interview process.

**Application Deadline:** April 30, but students are accepted beginning in December.

**Cost:** $300.00; a small number of fee waivers are available.

**Contact:**
ACCESS  
P.O. Box 519: M.S. 3000  
University College  
Prairie View, Texas 77446  
Office: (936) 261-5900  
Fax: (936) 857-1079

**College Level Success Programs**

**Architectural Concepts Institute (ACI)**

The ACI program is designed for academically well-prepared entering and transfer students. It is structured to accelerate their entry into the study of architecture by completing some of the freshman courses during the summer prior to their regular admission in the fall. Each student may complete up to twelve semester hours of architecture courses in the design sequence during a very intensive ten-week summer session. These sessions will allow each student to test his or her capabilities and interests in architecture while earning credit toward the Bachelor of Science in Architecture degree.
Upon successful completion of these courses, coupled with careful selection and scheduling of other courses, the student may complete the five year professional architecture program early.

Admission to the program requires application to the university and receipt of either an honors admission or regular admission. Space is limited. Prospective participants should contact the School of Architecture during fall or spring semester of their senior year in high school to request additional information and materials.

**Contact:**
Dr. Ikhlas Sabouni, Dean
School of Architecture
P.O. Box 519, MS 2100
Prairie View, TX 77446
Office: (936) 261-9800
Fax: (936) 261-9826

**The Roy G. Perry College of Engineering Enhancement Institute (CE2I)**

The Roy G. Perry College of Engineering Enhancement Institute (CE2I) is an innovative and intensive summer bridge-to-college program designed to prepare students for the rigors of an Engineering, Computer Science, or Technology Curriculum and to aid with the transition between high school and college. The Institute is a five-week residential program, where participants will complete coursework in Math, Science, Technology, and Professional Development Activities. The Institute is math intensive. A math assessment test will be administered initially to determine the appropriate math placement. The program goal is to achieve a mastery of one math level higher than the student placed when he/she entered the program. The program will also introduce students to basic concepts in chemistry, physics, and computing. Students will experience professional development activities including field trips to area engineering and technology industries; personal and professional development seminars and workshops (i.e. time management, study skills, learning style inventories, effective use of study groups and seven (7) habits of successful people).

Exceptional opportunities for summer internships and scholarships result from the CE2I experience.

**Cost:** $250.00; non-refundable.

**Contact:**
Dr. Kendall T. Harris, Dean
Roy G. Perry College of Engineering
P.O. Box 519, MS 2500
Prairie View, TX 77446
Office: (936) 261-9890
Fax: (936) 261-9868
Email: ktharris@pvamu.edu

**Education Abroad**

In recognition of the importance of preparing students to succeed in a global society, Prairie View A&M University offers students the opportunity to participate in education abroad. The requirements are as follows:

- Attain a minimum cumulative GPA of 2.50 (undergraduate students)
- Attain a minimum cumulative GPA of 3.0 (graduate students)
- Completion of 30 semester credit hours of college level work and completion of any developmental courses
- Be in good academic and conduct standing and remain in good standing
- Enroll in the University during the semester of application and the semester or summer term(s) that the student anticipates participating in education abroad.

Students are required to apply and must be approved to participate in education abroad. Additionally, students must obtain approval from their advisor, department or division head, and dean for external education abroad programs.

Specific program eligibility requirements vary. Some programs have additional requirements that may include a higher GPA, proficiency in a certain language, or other prerequisites.

Prairie View A&M University reserves the right to approve, disapprove, or retract approval of a student’s participation in education abroad.

Please contact the office of International Affairs at (936) 261-2147 or international@pvamu.edu for additional information.
**Panther Pride Summer Bridge Program**

Panther Pride is a five (5) week summer program designed especially for incoming Prairie View freshmen only who are interested in taking the necessary steps to jump-start their academic career. Program participants will have the opportunity to:

- complete six (6) hours of college level coursework.
- experience residence life by staying in University College.
- take part in academic and social enhancement workshops.
- network with faculty, staff, and administrators.

Qualified Panther Pride applicants are those who meet the following criteria:

- ACT score 16 or higher
- SAT score of 750 or higher
- High school GPA 2.5 or higher
- Favorable Teachers’ Evaluations

Because PVAMU is dedicated to the academic success of our students, the University will cover the cost of tuition, fees, housing, and meals associated with participating in the Panther Pride Program. Additionally, each participant will receive a $100 dollar book voucher to offset the cost of required textbooks. Program participants are responsible for paying the required University College housing deposit of $150 (required for the Fall semester) and the remaining cost for textbooks that is approximately $200.

**General Academic Information**

The academic information in this section pertains to all students. However, because there is important information specific to Graduate level students, please select the Graduate indicator if appropriate.

**Undergraduate**

The tabs included on this page include topics relating to most students. For items specific to Graduate level students, please select the appropriate tab on the right.

**University Policy On Academic Dishonesty**

Course credit, degrees, and certificates are to be earned by students and may not be obtained through acts of dishonesty. Students are prohibited from participation in acts of academic dishonesty including tampering with records or falsifying admissions or other information. Disciplinary action will be taken against any student who alone or with others engages in any act of academic fraud or deceit. The university’s policy on academic dishonesty is stated below:

It is the responsibility of students and faculty members to maintain academic integrity at the university by refusing to participate in or tolerate academic dishonesty. Each instance of academic dishonesty should be reported to the department in which the student has declared a major so that it can become a part of the student’s file; to the department head of the instructor of the course in which the alleged infraction occurred; to the Office of Student Conduct and to the Office of the Provost as deemed necessary.

**Offenses and Academic Disciplinary Actions**

**Offenses:**

- Acquiring Information
- Providing Information
- Plagiarism and Dual Submissions
- Conspiracy
- Fabrication of Information
- Misrepresentations, alterations of documents, forgery, etc.a

**Academic Disciplinary Actions:**

- Grade Penalty
- Letter of Reprimand
- Probation
- Suspension
Below are definitions of sanctions that can be enforced for breaches of the University Academic Dishonesty Policy:

1. **Probation** - In addition to the penalty for the first offense, a student on academic conduct probation is subject to the following restrictions:
   a. Ineligibility to hold an office in any student organization recognized by the university or to hold any elected or appointed office of the university.
   b. Ineligibility to represent the university outside the university community in any way, including representing the university at any official functions, intercollegiate athletics, or any other form of intercollegiate competition or representation.
   c. Ineligibility to receive university-administered financial aid, such as scholarships.

2. **Suspension** - Separation of the student from the university for no less than one regular semester. The student is not guaranteed readmission at the end of such period of time, but is guaranteed a review of the case and the student’s entire record by the student’s dean.

3. **Dismissal** - Separation of the student from the university for an indefinite period of time. Readmission to the university may be possible at some time, but no specific time for a decision is established. The student is not automatically eligible for readmission.

4. **Expulsion** - Separation of the student from the university whereby the student is not eligible for readmission.

Following the review, the Dean’s decision regarding eligibility for readmission will be communicated in writing to the student who has the right to appeal that decision to the University Academic Dishonesty Disciplinary Committee.

The standard of review to be used in all proceedings under this section shall be fundamental fairness. Strict rules of evidence and procedures are not required so long as the proceedings are conducted in such a manner as to allow both sides to fairly and fully explain the circumstances. Decisions regarding admissibility of evidence and the weight to be given to same shall be made by the party who is conducting the hearing at the respective level of appeal.

**Offenses and Appropriate Academic Disciplinary Actions**

Commission of any of the following acts shall constitute academic dishonesty. This listing is not exclusive of any other acts that may reasonably be determined to constitute academic dishonesty. The penalty for an offense, whether first or later, will generally range from a letter of reprimand to expulsion, depending upon the severity of the offense. If an offense leads to course credit or the acquisition of a degree or certificate and it is revealed after following appropriate procedures that the offense was indeed committed, the university has the right to rescind course credit, degrees, and/or certificates awarded.

**Offense: Acquiring Information**
1. Acquiring answers for an assigned work or examination from unauthorized source.
2. Working with another person or persons on an assignment or examination when not specifically permitted by the instructor.
3. Copying the work of other students during an examination.

**Offense: Providing Information**
1. Providing answers for an assigned work or examination when not specifically authorized to do so.
2. Informing a person of the contents of an examination prior to the time the examination is given.

**Offense: Plagiarism and Dual Submissions**
1. Failing to credit sources used in a work or product in an attempt to pass off the work as one’s own.
2. Attempting to receive credit for work performed by another, including papers obtained in whole or in part from individuals or other sources.
3. Attempting to receive credit in one or more classes for the same paper or project without written approval of instructors involved.

**Offense: Conspiracy**
Agreeing with one or more persons to commit an act of scholastic dishonesty.

**Offense: Acquisition of Examinations, Answers to Examinations or Assignments**

**Offense: Fabrication of Information**
1. The falsification of the results obtained from a research or laboratory experiment.
2. The written or oral presentation of results of research or laboratory experiments without the research or laboratory experiments having been performed.

**Offense: Misrepresentations, Alterations of Documents and Forgery**
1. Taking an examination for another person or allowing someone to take an examination for you.
2. Signing an attendance sheet for another student or committing similar acts of impersonation.
3. The changing of admissions data, test results, transcripts, grade reports, or other documents.
Procedures In Academic Dishonesty Cases

NOTE: Where there is no department, responsibility assigned to Department Head will go to the Dean of the college.

1. The instructor of record shall be the instructor of the course in which the claim of academic dishonesty is being made or the appropriate committee chair for a graduate student taking examinations required by the department or college.

2. At the point of discovery, the instructor shall:
   a. Inform the student of the alleged academic dishonesty and explain the sanction(s);
   b. Hear the student's explanation of circumstances and judge the student to be responsible or not responsible for academic dishonesty;
   c. If he/she judges him/her to be responsible for academic dishonesty, he/she will make a written report to the head of the department offering the course, with a copy to the student, the department head for the program in which the student has declared a major, the Office of Student Conduct and the Office of the Provost, outlining the incident and including a recommendation of disciplinary action(s) to be imposed; and
   d. Inform the student, in writing, of his/her right to appeal to the head of the department offering the course regarding either the question of responsibility or the sanction(s) and explain the procedures the department head will follow if his/her decision is appealed to that level.

3. The instructor's recommendation may be dismissed, reduced, upheld or changed by the department head. Prior to reaching a final decision regarding any sanction to be imposed, the Department Head shall check the student's record in the Office of Student Conduct and/or the department in which the student has a declared major to determine the appropriate disciplinary action for a person with his/her previous offenses.

4. If the student chooses not to appeal and the Department Head concurs with the instructor's recommendation, the Department Head will implement the sanction. A copy of the report is forwarded to the Dean of the college in which the alleged offense occurred and the Dean of the college in which the student has a declared major.

5. If the Department Head proposes to change the instructor's recommendation, the Department Head shall conduct a hearing. The student and the instructor shall be allowed to present witnesses and provide evidence related to the charges. The decisions resulting from this hearing shall be forwarded in writing to the dean of the college offering the course to the student. The student may appeal to the Dean.

6. If the student chooses not to appeal the decision of the Department Head, the Dean of the college offering the course will implement the sanction.

7. Should the student appeal to the dean, an appeal at this level may be based on written summaries only. However, should the dean choose to hear witnesses or hold an informal hearing, it should be done within five business days of receipt of the recommendation from the department head. Within five business days of the hearing, if one is to be held, or five business days of receipt of the decision, if there is to be no hearing, the Dean shall review the charges and render a written notification.

8. A student who wishes to appeal the decision of the Dean, in whole or in part, shall appeal to the University Academic Dishonesty Disciplinary Committee which will be appointed by the Provost and Senior Vice President for Academic Affairs. The Committee is to be comprised of one-third faculty, one-third Student Affairs staff and one-third students.

9. Once a charge of academic dishonesty has been finally resolved, notice of the same shall be provided in writing to the student, the instructor, the head of the department offering the course, the Dean of the college offering the course, the head of the department in which the student has declared a major, the dean of the college in which the student has declared a major, the Office for Student Conduct, and the Office of the Provost.

10. Following a first offense, the student must be given a copy of the University Academic Dishonesty Policy by the Department Head of the college in which the offense occurred and the said policy should be discussed with the student.

Student Rights and Responsibilities in Academic Dishonesty Cases

Students have the right to accept the decision of the instructor for a particular offense. This does not preclude review of records for past offenses and imposition of penalty for accumulated violations.

Students shall be afforded the following rights in the hearing conducted by the department head. The dean's appeal shall not be considered a hearing covered by these regulations:

1. Right to a written notice of the charges at least three working days before the hearing may proceed.
2. Right to waive the three-day notice of charges.
3. Right to reasonable access to the case file.
4. Right to review all evidence and question any witness against the student.
5. Right to present evidence and/or witnesses in his/her own behalf.
6. Right to have an observer present during the hearing. The observer cannot be a witness in the hearing or represent the student in the hearing.
7. Right to appeal the disciplinary recommendation to the Dean of the college offering the course and, finally, to the University Academic Dishonesty Disciplinary Committee.

If the student wishes to have an attorney present at a hearing before the Department Head or Dean, the Department Head or Dean will be afforded the same opportunity to have equal representation present.

If the student wishes to appeal a recommendation made by the instructor, Department Head or Dean, he/she must provide written notice to the proper level within five working days of receiving notice of the recommendation. Only in unusual circumstances may this deadline be extended by the entity conducting the hearing.
Further Notes Related to Disciplinary Action in Academic Dishonesty Cases

Offenses punishable by probation, suspension, dismissal, expulsion or other penalties must be reported in writing to the University Academic Dishonesty Disciplinary Committee within three working days of the decision even if the student waives his/her right to an appeal. Please note that students who are found to be responsible of Academic Dishonesty are also subject to disciplinary actions from the Office of Student Conduct, in addition to the action taken by Academic Affairs.

Class Attendance Policy

Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet.

Excessive absenteeism, whether excused or unexcused, may result in a student’s course grade being reduced or in assignment of a grade of “F”.

Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University’s attendance policy in each course syllabus.

Excused Absences

Absences due to illness, attendance at university approved activities, and family or other emergencies constitute excused absences and must be supported by documentation presented to the instructor prior to or immediately upon the student’s return to class. Students are always responsible for all oral and written examinations as well as all assignments (e.g., projects, papers, reports).

Excessive Absences

Accumulation of one week of unexcused absences (for the number of clock hours equivalent to the credit for the course) constitutes excessive absenteeism. The instructor is not required to accept assignments as part of the course requirement when the student’s absence is unexcused.

Religious Holy Day Absences

In accordance with Texas Education Code, Section 51.911, a student may be absent from classes or other required activities, including examinations for the observance of a religious holy day, including travel for that purpose and will be permitted to take missed examinations and complete missed assignments provided the student has notified the instructor of the planned absence in writing and receipt of the notice has been acknowledged by the instructor in writing. “A religious holy day means a holy day observed by a religion whose place of worship is exempt from property taxation under the Texas Tax Code, Section 11.20.”

Title IX: Pregnancy & Related Conditions:

In the case of a student who does not otherwise qualify for leave under the university’s incomplete policy, the university shall treat pregnancy, childbirth, false pregnancy, termination of pregnancy and recovery therefrom as a justification for a leave of absence for so long a period of time as is deemed medically necessary by the student’s physician, at the conclusion of which the student shall be reinstated to the status which she held when the leave began.

Grading/Class Related Appeals

Generally, student complaints about grades or other class related performance assessments can be addressed by the instructor of record and the student. When that cannot be achieved, the student may have his/her complaint addressed by the procedure outlined below. Faculty, other classroom professionals, and students’ rights are to be protected and their human dignity respected. Grading and other class related complaints are to be filed initially within thirty days following the alleged precipitating action on which the complaint is based. Except where extenuating circumstances render it unreasonable, the outcome of a complaint that reaches the level of department head or designee, will be reviewed within thirty days and a written notification of outcome will be provided to the student. Where a complaint must be reviewed at each level, the entire process should be completed within ninety days of receipt of the complaint.

In those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor’s assessment of their academic performance, the student has a right to appeal by following the procedure listed and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint:

1. The student should meet with the instructor of record, preferably during his/her office hours, to present the grievance and any supporting documentation that the grade or outcome of a class related concern should have been different.
2. If the instructor is no longer at the university or if the subject of the grievance arises when faculty are not expected to be on duty for a week or more, the student should report to his or her advisor or the absent faculty member’s immediate supervisor (department head, or program director in School of Architecture or College of Nursing).
3. If the issue is not resolved at the faculty level and the student wishes to pursue the issue beyond the instructor, he/she should meet with his/her academic advisor even if the grade or other issue is not in the department, division, school, or college in which the student’s class is being offered. The advisor will intervene appropriately, but if unable to negotiate an agreement between the student and his/her instructor, will direct the student to follow each level of the appeals procedures items 4 through 10 below.
4. If no agreement can be reached following discussion among the advisor, the student, and the instructor, the student should write a letter to the instructor’s immediate supervisor. In the School of Architecture; or School of Nursing, the Dean should be contacted; in all other colleges the immediate supervisor of faculty, teaching assistants, laboratory assistants and other classroom professionals is the department or division head. The letter or form should present the grievance, the rationale for it, and the remedy sought. The letter or form should be sent at least one week prior to the student’s scheduled appointment to meet with the instructor’s immediate supervisor.

5. If the instructor’s immediate supervisor cannot resolve the issue to the student’s satisfaction and the student wishes to pursue the matter, the instructor’s immediate supervisor will refer the matter to a three to five person faculty appeals panel, one of whom must be a part-time faculty person if part-time faculty members are employed in the department, school or college. The panel will review the grievance and make a recommendation to the instructor’s immediate supervisor.

6. If no agreement is reached and the student decides to appeal the matter further, he/she should send a letter or any published form used for this purpose to the person above the instructor’s immediate supervisor.

7. If the student believes that the decision of the highest official in the College or School, the dean, deserves further review due to flaws in the previous reviews or due to his/her having information of such nature as to potentially impact the outcome, the student should provide a written request for review to the Provost and Senior Vice President for Academic Affairs (or their designee), who will employ a review process appropriate to the situation and notify the dean of the outcome. The Dean will then notify the student of the outcome. A decision that has reached by the Admissions and Academic Standards Committee is final.

8. Grading and other class related academic issues are referred in writing to the Office of the President only in instances where a preponderance of the evidence reveals that a student’s Constitutional rights or human dignity may have been violated. The Provost and Senior Vice President for Academic Affairs (or their designee) will transmit to the President the entire record of reviews conducted at each level if requested by the President following his/her receipt of the student’s written appeal. The President will employ a review process appropriate to the matter presented and notify the Provost and Senior Vice President for Academic Affairs (or their designee) and dean of the outcome. The Dean will then notify the student of the outcome.

9. If the class related complaint is related to issues including but not limited to sexual harassment, violence, drug use, possession of firearms, or other behaviors prohibited by federal law, state law, Texas A&M University System policy or University regulations, the student may select one of the following options:

   Option A: Report the incident, in writing, to the instructor’s or other classroom professional’s immediate supervisor (department head, division head, or dean).

   Option B: Report the incident, in writing, to the Director of Human Resources in W.R. Banks Building, Room 122 or to the Provost and Senior Vice President for Academic Affairs in A.I. Thomas Building, Room 212.

10. If the class related complaint involves another student(s) and is related to issues including, but not limited to sexual harassment, violence, drug use, possession of firearms, or other behaviors prohibited by federal law, state law, Texas A&M University System policy, or University regulations, the student should report the incident to the Office of the Vice President for Student Affairs.

### Classification of Students

- **Freshman**: A student who has enrolled in regular college work but has earned fewer than 30 semester credit hours. Developmental/Remedial/Study Skills courses do count towards full-time status and course loads, but not classification.

- **Sophomore**: A student who has earned 30 to 59 semester credit hours.

- **Junior**: A student who has earned 60 to 89 semester credit hours.

- **Senior**: A student who has earned at least 90 semester credit hours.

### Courses and Credits

#### The Course Numbering System

Beginning with the 1984-85 academic year, Prairie View A&M University moved from a three-digit to a four-digit course numbering system. Under the new system, the first digit represents the course level (i.e., below college level/developmental 0, freshman 1, sophomore 2, junior 3, senior 4, and masters 5 and 6, doctoral 7 and 8). The fourth digit indicates the credit hour value of the course.

Beginning spring 2018, Prairie View A&M University will move to the Texas Common Course Numbering system. Under the new system, the first digit represents the course level, the second digit represents the credit hour for the course and the third and fourth numbers are for sequencing purposes.

#### Unit of Credit

The unit of credit used at Prairie View A&M University is the semester hour. A semester hour is the equivalent of one lecture contact hour per week for one semester. Time requirements for the semester credit hour in activities other than lecture vary according to the nature and objectives of the activities.

The federal definition of the credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency.
Course Loads
The normal full-time course load ranges from 12-semester hours to 18-semester hours per semester during the regular academic year and six semester hours during a five-week summer term. Undergraduate students required to enroll in one or more developmental courses as a result of placement examinations are restricted to a maximum of 15 credit hour course load in a regular semester and 6 semester hours in a five-week summer term. The total credit hours earned for the two summer sessions may not exceed twelve. Undergraduate students conditionally admitted are restricted to 12 semester credit hours in fall and/or spring semester.

Course Overloads
Undergraduate students with a 3.0 GPA or higher may be allowed to take a maximum of 21 semester credit hours during the fall and/or spring semester. Taking of courses simultaneously at another institution or by distance education which would cause the student’s total workload to exceed the maximum overload will not be permitted. If a student persists in registering at another institution without approval of the Dean of the respective college or school, the work taken may not be acceptable for transfer to Prairie View A&M University. Any course load above the maximum allowed for any semester must have the approval of the Provost & Senior Vice President of Academic Affairs or the designee.

Registration and Advising
Registration is the selection of classes following appropriate advisement. A student has not completed registration and is not entitled to University privileges until required fees have been paid. Persons planning to register for classes at Prairie View A&M University for the first time or who are returning to the University after being disenrolled for one or more previous regular semesters (fall or spring) should be sure that they have met the University’s admission requirements. It is recommended that students provide immunization documentation to include TB screening. Applicants for any category of admission will not be permitted to register in courses offered at the main campus in Prairie View, Texas or at any distant site where courses are offered, if admissions requirements have not been met. Students must be advised and obtain an alternate PIN number from their advisor and register for courses online through PantherTracks.

First time, full time freshmen, including those admitted to the University Scholars Program, and transfer students who have earned less than 24 credit hours, are initially advised, tested and registered in their departments to ensure appropriate advisement and to facilitate the registration process. Transfer students who have earned 24 or more credits and have satisfied their Texas Success Initiative requirements will be advised and registered in their respective major departments. Transfer students who have earned 24 or more credits but have not satisfied their Texas Success Initiative (TSI) requirements will be required to report to Room 137 in the Delco Building for TSI advisement and registration in appropriate developmental classes prior to advisement and registration in their major departments. For questions about the state mandated test, the Developmental Studies Program, or the Center for Academic Support, contact the University College.

If the student selects a second major or selects a minor, the student should meet with an advisor in the department, school, or college offering the second major or minor and submit the signed approval form to the Office of the Registrar.

Independent Study Courses
Independent study courses are permitted on a highly selective need basis. Any student enrolling in an independent study course must have the prior approval of the supervising faculty member, the Department Head in which the course is to be taken, Dean of the college or school and the Provost and Senior Vice President for Academic Affairs. Independent study is for courses in the existing course inventory and granted for extenuating situations. No more than 6 such credit hours may be counted toward a degree.

Scheduling of Courses
In case a section is dropped because of insufficient enrollment, a student may add other courses approved by his/her advisor by the published deadline, as noted in the academic calendar.

Course Auditing
When space is available and the Department and Dean consent, any person may audit a course. An individual sixty-five years of age or older is exempt from paying the fee. Credit is not awarded for any audited course. Individuals who audit courses do not submit papers, take examinations, participate in discussions, or receive evaluations in courses audited. Those wishing to audit may register only after late registration but prior to the 12th class day of a regular semester or the 4th class day of a summer session. A student who audits a course may not change registration during the semester to take the course for credit.

Degree Majors and Minors
All students must complete the requirements of an academic major. Many academic departments also require students to complete the requirements of a minor prior to graduation. Minors require 18 to 28 semester credit hours. Students should declare a major, using appropriate forms that are available in academic departments and the Office of the Registrar upon completion of 45 earned hours. Academic majors and minors that are available at the University are listed below:
### Academic Majors

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<td>Human Nutrition and Food</td>
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<td>School of Architecture</td>
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<td>Digital Media Arts</td>
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<td>Kinesiology</td>
</tr>
<tr>
<td>Roy G. Perry College of Engineering</td>
<td>Chemical Engineering</td>
</tr>
<tr>
<td></td>
<td>Civil Engineering</td>
</tr>
<tr>
<td></td>
<td>Computer Engineering</td>
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<tr>
<td></td>
<td>Computer Engineering Technology</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
</tr>
<tr>
<td></td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td></td>
<td>Electrical Engineering Technology</td>
</tr>
<tr>
<td></td>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>College of Juvenile Justice and Psychology</td>
<td>Criminal Justice</td>
</tr>
<tr>
<td></td>
<td>Criminal Justice with Specialization in Juvenile Justice</td>
</tr>
<tr>
<td></td>
<td>Psychology</td>
</tr>
<tr>
<td>College of Nursing</td>
<td>Nursing</td>
</tr>
</tbody>
</table>

### Academic Minors

<table>
<thead>
<tr>
<th>Department</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture and Human Sciences</td>
<td>Agriculture</td>
</tr>
<tr>
<td></td>
<td>Family and Community Service</td>
</tr>
<tr>
<td></td>
<td>Human Nutrition and Food</td>
</tr>
<tr>
<td>School of Architecture</td>
<td>Art</td>
</tr>
<tr>
<td></td>
<td>Construction Science</td>
</tr>
<tr>
<td></td>
<td>Digital Media Arts</td>
</tr>
<tr>
<td>Brailsford College of Arts and Sciences</td>
<td>African-American Studies</td>
</tr>
<tr>
<td></td>
<td>Behavioral and Political Science</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
</tr>
</tbody>
</table>
Communications
Drama
English
Geography
Humanities
Latin American and Caribbean Studies
History
Military Science - ARMY
Mathematics
Military Science - NAVY
Music
Brailsford College of Arts and Sciences (cont’d)

Physics
Political Science
Social Work
Sociology
Spanish

College of Business

Accounting
Business Administration (Management)
Economics
Entrepreneurship
Finance
International Business
Management Information Systems
Marketing
Personal Financial Planning
Real Estate
Supply Chain Management

Whitlowe R. Green College of Education

Dance
Health
Kinesiology

Roy G. Perry College of Engineering

Civil Engineering
Computer Engineering Technology
Electrical Engineering Technology
Chemical Engineering
Mechanical Engineering

College of Juvenile Justice and Psychology

Criminal Justice
Psychology

Correction or Change of Grade

Any change or correction of a grade recorded for a student must be made within the semester or term immediately following the term for which the grade was recorded.

Grading and Grade Related Issues

Grading System

The standard university grading scale is indicated below. The score range applies to all programs except the College of Nursing.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Meaning</th>
<th>Score Range</th>
<th>Grade Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>90-100</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>80-89</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>70-79</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>60-69</td>
<td>1</td>
</tr>
</tbody>
</table>
Incomplete “I” Grade

An “I,” incomplete, may be granted only when an authorized absence or other cause beyond the student’s control has prevented the student from completing a major course requirement, usually a final examination or major paper due near the end of a course. The student must have a passing average in all work completed at the time the incomplete is given. Incomplete work must be completed and a grade recorded within one calendar year from the close of the term in which the grade was earned. If the incomplete is not removed within the time allotted, the “I” will be changed to “F” by the registrar. This regulation does not apply to thesis problems, research credit courses, internships, or student teaching which may go beyond the end of the semester but does apply to terminal project credit courses.

Grade Replacement for Repeated Courses

Effective fall 2011, Undergraduate students have the option to replace up to 12 semester credit hours of courses where a C, D, or F is earned in a course, effective with courses taken fall 2011. Students will have to request to replace the course with the Office of the Registrar with college approval. Grades repeated, but not replaced, will be averaged into the cumulative grade point average. NOTE: Courses taken more than twice may be charged at a higher rate. See the section on Tuition and Fees.

Limit on Repetition of Upper Level Course

Students who accumulate two failures in upper level (3000 or above) courses are required to obtain approval from their academic dean to take the course for a third time.

Grade Point Average

The grade point average (GPA) is determined by adding Grade Values (Grade Points) multiplied by Credit Hours for all courses completed during a period and dividing that total by the total GPA Hours during the period. Withdrawal (W), Voluntary Withdrawal (WV), Military Withdrawal (MW), Administrative Withdrawal (AW), and Incomplete (I) will not be included among grades used to compute grade point averages.

Calculating GPA

1. Convert your letter grades to point values based on a 4.0 grading scale.

   \[
   \begin{align*}
   A &= 4.0 \\
   B &= 3.0 \\
   C &= 2.0 \\
   D &= 1.0 \\
   F &= 0
   \end{align*}
   \]

2. Multiply the Semester Credit Hour by Grade Points, which gives you the Quality Points.

3. Once converted, determine the total Quality Points and the total GPA Hours.

4. Divide the sum of the quality points by the total number GPA Hours.

For example:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number</th>
<th>Credit Hours</th>
<th>Grade</th>
<th>Grade Points</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM</td>
<td>1003</td>
<td>3</td>
<td>A</td>
<td>4.0</td>
<td>12</td>
</tr>
<tr>
<td>ENGL</td>
<td>1013</td>
<td>3</td>
<td>C</td>
<td>2.0</td>
<td>6</td>
</tr>
<tr>
<td>MATH</td>
<td>1015</td>
<td>5</td>
<td>B</td>
<td>3.0</td>
<td>15</td>
</tr>
<tr>
<td>CUIN</td>
<td>1013</td>
<td>3</td>
<td>F</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>HUNF</td>
<td>2013</td>
<td>3</td>
<td>D</td>
<td>1.0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17</td>
<td></td>
<td>10</td>
<td>36</td>
</tr>
</tbody>
</table>

Semester Grade Point = 36.0/17.0 = 2.1
Grade Reports
Students may acquire their mid-term and final grades via the WEB through http://panthertracks.pvamu.edu . Mid-term grades are progress reports and are not recorded on the student’s permanent record. Final grades are recorded on the student’s permanent record at the close of each semester and summer term. If an error in the recording of grades is suspected, the student should report this immediately to the instructor, department head, or dean for verification and correction, if appropriate.

Application for Graduation
A student who plans to receive a degree from Prairie View A&M University must apply for graduation online a semester before anticipated graduation date. Students are to apply by the published deadline available on the website via the Academic Calendar for each graduation semester (fall, spring, or summer).

To start the process, complete the graduation checklist found online via PantherTracks at the “Apply to Graduate” link, then process the online application. A fee is required as part of the application process and will be billed to the student at the time the application is electronically submitted. Students who apply for graduation that are not enrolled for the term in which they plan to graduate will be charged an absentia fee. Finally, students receiving financial aid must participate in the financial aid exit loan process and should visit the Office of Student Financial Aid for assistance.

Degrees for students who are indebted to the University or have not completed “Exit Loan Counseling” will be posted, if earned, but the transcript and diploma will be withheld until the debt is paid, the exit loan counseling completed, and the hold removed by Student Financial Aid.

Canceling a Graduation Application After Submittal to the Registrar’s Office
A student has 10 business work days after the application deadline to cancel an application. No cancellations will be accepted after this period. The Graduation Cancellation Form (Forms Library-WEB) must be completed and submitted to the Office of the Registrar by the graduation applicant. Graduation fees are non-refundable and non-transferable.

Graduation Requirements
Each degree program has established courses, examinations, and other performance requirements students must satisfy in order to be awarded a degree. General graduation requirements include:

1. Satisfactory completion of work in an academic major;
2. Satisfactory completion of the Core Curriculum requirements;
3. A minimum cumulative grade point average of 2.00;
4. A minimum grade point average of 2.00 in the major;
5. A minimum grade point average of 2.00 in the minor;
6. Completion of the residency requirement: A minimum of 36 semester hours of credit toward a degree must be earned in residence at Prairie View A&M University.
7. Completion of 30 of the final 36 semester hours of credit in residence at Prairie View A&M University.

The University requires that a student be in good standing in order to be awarded a degree. There must be no academic, financial, or disciplinary deficiencies at the time of final clearance. Any discovery of failure to satisfy the good standing requirement including involvement in inappropriate conduct up to and through final examinations, a cooperative education, internship assignment, and/or commencement will result in a review and in a sanction which must be satisfied prior to award of a degree or may result in a candidate’s being denied the award of a degree from Prairie View A&M University.

Transfer Credit During Last Enrollment Period
A student who has the permission of the Dean of his/her college to complete a requirement for graduation at another institution during his/her final semester at the university, must have on file in the Office of the Registrar, an official transcript of any grade received at the other institution within 45 days after commencement. Students who do not meet this requirement will not be permitted to graduate. A student who does not graduate because of failure to satisfy this requirement must reapply for graduation during the next graduation period. An official transcript is the only acceptable documentation of the completion of a graduation requirement.

Transfer of Grades from Other Institutions while Matriculating at Prairie View A&M University
Undergraduate students matriculating at Prairie View A&M University may wish to take courses from other institutions of higher education. Prior to enrolling in a face-to-face or electronically delivered course at another institution, the student who wishes to take courses to be transferred back to Prairie View A&M University and to be counted toward degree requirements must obtain approval from the respective department head and dean. Written specifications identifying the course or courses to be taken must be signed by the student, the department head, and the dean. The pre-approved transfer credit form will be forwarded to the Office of the Registrar for inclusion in the student’s record. If there is no agreement on file in the Office of the Registrar, grades for courses taken at other institutions by students attending Prairie View A&M University may not be accepted.
Teacher Certification Requirement
Students seeking degrees in education, or degree majors in other fields with eligibility for teacher certification, must be admitted to teacher education by the College of Education before enrolling in teacher education professional education courses. Entrance and exit examinations are required. Students interested in being certified as teachers after graduation should contact the Office of the Dean, for the Whitlowe R. Green College of Education, for information and advisement following admission to the University.

Registration Requirement
Students completing work required for a degree must be enrolled during the term in which the work is completed and the application for graduation is filed. A fee is required for registration in absentia.

Removal of “I” grades
A student who has a grade of Incomplete, “I”, must arrange to complete the work and receive a grade that meets the minimum acceptable to pass the course and to receive credit in the major or minor. No student will be awarded a degree until the “I” grade has been converted to a passing grade. All grades of “I” must be removed and replaced with passing grades for courses included in degree requirements. A student should not re-enroll in a course for which a grade of “I” has been recorded.

RN-BSN Program: Second Baccalaureate Degree
This plan of program study applies to the student who holds a license to practice as a Registered Nurse (RN) and has an Associate Degree in Nursing (ADN) or a Diploma of Nursing and who is pursuing the Prairie View A&M University's Bachelor of Science in Nursing Degree. The program of study requires that the student completes 124 semester hours, which include: 60 prerequisite hours; 36 hours earned through advanced standing credit if graduated from an accredited ADN program by the Accreditation Commission for Education in Nursing Inc. (ACEN); and 28 semester hours earned through enrollment in the College of Nursing.

Prerequisites: 60 semester hours of core non-nursing course requirements may be transferred from any accredited college or university.

Advanced Standing Credits in Nursing from ADN Program: 36 semester hours. At the completion of the first semester of required nursing curriculum in the RN-BSN program and evidence of an experiential base, students are granted 36 semester hours toward graduation for previous nursing credits earned in an ACEN accredited ADN program.

Dual Degree
Dual degrees are two different bachelor's degrees at one commencement; for instance, a Bachelor of Business Administration in Management and a Bachelor of Science in Computer Science. To do this you must complete at least 150 credit hours with at least 30 credit hours unique to each program. To obtain a dual degree you must complete a form that can be obtained for the Office of the Registrar.

Double Majors
You may decide to pursue two majors while at Prairie View A&M University. Your advisor should be able to direct you to a source that can tell you the courses needed to complete the second major. The Change of Major form must be completed to establish your double major. A double major requires completion of all requirements for both programs PRIOR to graduation.

Time Limit of Graduation
Students graduate under the catalog requirement for the academic year in which they first enroll in the university, provided those requirements are completed within a continuous six year period. The academic year begins with the fall semester. Students enrolling for the first time during summer session are subject to the catalog for the following academic year. If degree requirements are not completed within the six year period, students must meet all requirements effective for the catalog under which they expect to graduate. If attendance is interrupted for as much as one academic year, or if a student transfers from one degree program to another, the catalog requirement in effect at the time of re-admission or transfer applies.

Commencement and the Conferring of Degrees
Commencement exercises are scheduled in May, August and December of each year. Participation in the commencement exercises does not constitute the formal conferral of the degree. Formal conferring of degrees and awarding of diplomas take place after the final graduation audit review conducted by the academic dean and Office of the Registrar.

The University has the right to withhold a degree if academic, financial or disciplinary deficiencies arise before the degree is posted. The University may rescind a previously granted degree if it becomes aware of information leading to the determination that the degree(s) should never have been granted.

Honor Roll
To qualify for the semester honor roll, a student must have carried a minimum 12 semester hour course load, maintained a 3.50 grade point average or greater, and earned no grade lower than a “C”. The minimum GPA for the semester honor roll is 3.50. Developmental courses will not be included in the computation of the GPA for honor roll.
Dean’s Honors
To qualify, a student will have earned a minimum of 12 semester hours, excluding any developmental or other courses below college level. A student may qualify for Dean’s Honors with a semester GPA between 3.00 and 3.49.

Graduating with Honors
Honors recognition at graduation is based on consistent high scholarship and cumulative grade point average based upon the completion of a minimum of 60 semester credit hours earned at Prairie View A&M University. Developmental courses will not be included in the computation of the GPA for graduating with honors. Students graduating with honors will be recognized at commencement by wearing gold honor stoles and by public announcement during the ceremony. The specific honors levels are as follows:

3.90 - 4.00 GPA = Summa Cum Laude
3.70 - 3.89 GPA = Magna Cum Laude
3.50 - 3.69 GPA = Cum Laude

General University Probation/Suspension Policy
Failure to maintain minimum standards will cause a student to be placed on probation or suspension or be administratively dismissed. Conditions governing probation and suspension are listed below:

1. Any student whose cumulative grade point average falls below 2.0 is placed on probation.
2. Any student on probation who does not receive a 2.0 semester grade point average is suspended.
3. Any student on probation for three consecutive regular semesters is suspended. (This is possible if the student who has a cumulative grade point average below 2.0, earns a semester grade point average of 2.0 or above but does not raise the cumulative grade point average above 2.0) However, a student on probation who has earned a 2.0 or better for three consecutive semesters can appeal the suspension to the Admission and Academic Standards Committee before serving the suspension. A decision to continue the student’s probation in lieu of suspension must be approved by the Provost and Senior Vice President for Academic Affairs.
4. If a student’s cumulative GPA drops below 1.00 at the end of their first regular semester at Prairie View A&M University, the student will be placed on probation and required to participate in the Academic Recovery program.
5. If a student’s cumulative GPA drops below 1.00 at the end of any fall or spring semester following their first regular semester at Prairie View A&M University, the student will be suspended.
6. The length of the first suspension is one regular semester. The second suspension is for one year. After a second suspension, a student must meet all academic requirements or be dismissed.
7. Following suspension, a student is on probation for the next semester and thus is governed by the guidelines for students on probation.

Students who are suspended are expected to strengthen their academic skills by pursing credit or non-credit courses or programs related to their academic or career objectives, or engage in other activities that can positively impact students’ preparation for success upon returning to the University following a suspension.

Transcripts
A transcript is the record of an individual’s course work at the University. Before an official transcript can be released, all admission requirements, fiscal and financial aid obligations to the University must be met. Official transcripts may be requested by current students via the web on PantherTracks at www.pvamu.edu.

Please allow 3-5 business days from the date the request was received, except during peak periods and holidays, during these times allow longer processing times.

A student must provide identification at the Office of the Registrar when picking up a copy of a transcript in person. Without the written consent of the student, the University will not release a transcript except when directed by a court ordered subpoena.

Leaving the University after Registering
A student who registers but decides not to attend the University must officially withdraw from the University. Failure to officially withdraw will result in the student being awarded grades of an “F” in all courses, and the student being required to pay all assessed fees even though the student has actually left the University.

Limitations on Course Withdrawals (Six Drop Rule)
Effective September 1, 2007, institutions of higher education may not permit a student to drop more than six courses, including any course dropped at another institution of higher education. For specific details to this rule refer to the following web address: http://www.pvamu.edu/pages/4702.asp. (Enacted by the 80th Legislative Session of the State of Texas - SB 1231)
Course Changes and Withdrawal

Course changes and withdrawals are accepted only as designated in the academic calendar. All such changes in registration require the approval of the student’s advisor and/or dean. No withdrawal in registration is complete until filed with the Office of the Registrar for recording. A student who wishes to withdraw from a course other than an undergraduate pre-college developmental course (reading, writing, mathematics, study skills), but whose advisor, Department Head, or Dean will not approve, may appeal to the Provost and Senior Vice President for Academic Affairs.

Voluntary Withdrawal from a Course

1. A student may drop from a course before the census date ends without having the course recorded on his/her permanent record.
2. After the census date, dropping a course is equated to withdrawing from a course. Withdrawal from a course will be allowed until two weeks after mid-term examinations period during the fall and spring semesters, and one week before the date of the final examination during a summer term. No Withdrawal from a course will be allowed after that point. Withdrawals must be approved by the advisor/department head/dean.
3. After the census date, the student is automatically assigned a grade of a “W” to indicate a course withdrawal. The “W” will not be calculated in the GPA.
4. Withdrawals from courses may affect housing, graduation, financial aid, membership in organizations or other opportunities.

Voluntary Withdrawal from the University

Students seeking to withdraw from the University may seek advice and counsel from several sources: Academic Advisor, Course Instructors, Department Head, or Dean. A student may be referred to the Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) who will assess the student’s rationale for withdrawal, and through referral, coordination, counseling, or other University resources, assist the student with remaining enrolled if possible.

A student who officially withdraws after the census date through the last class day will receive a grade of “WV” for all courses affected by the withdrawal and a registration hold will be placed to prompt academic advisement before subsequent registration can occur.

Withdrawal of Students Ordered to Military Active Duty

A student called to active duty after the summer semester of 1990 will have three options as follows:

1. Refund of the tuition and fees paid by the student for the semester in which the student is required to withdraw,
2. Grant the student a grade of “MW” in each of his or her academic courses and designate “withdrawn-military” on the students transcript, or
3. If an instructor determines that a student has satisfactorily completed a substantial portion of the course and demonstrated mastery of the material, then an appropriate final grade may be assigned.

In all cases, the student should provide a copy of the military order to the Academic Dean. The Dean will ensure that the Registrar has a copy of this order to keep in the permanent file. In those events where the student chooses the second option, the Dean will ensure that grades of “MW” are recorded for courses in which the student is enrolled. The instructor for each course will prepare the necessary documentation for removing the “MW” grade and forward the information to the department head for storage in the student’s record in the college, or school. In addition, a copy of the documentation will be forwarded to the Registrar for storage in the student’s permanent file. The time limit for the removal of a grade of “MW” for a student called to active military duty after the summer semester of 1990, shall be one calendar year from the official date of release from military active duty. Failure to enroll as a student during the one calendar year following release from military active duty will result in the grade of “MW” remaining permanently on the academic record.

Administrative Dismissal

To be administratively dropped from the University is to be dismissed from the University. A student may be dismissed from the university for failure to make satisfactory academic progress, or for inappropriate behavior that is detrimental to good order. Administrative drop does not relieve the student of the responsibility for all debts, including tuition, fees, room and board, and other incidental charges for the full semester.

Graduate

Since the authorization of a Division of Graduate Studies in 1937, Prairie View A&M University has sustained its dedication to excellence in teaching, research, and service through commitment to advanced educational offerings which include multiple masters, doctoral, and certification programs. Opportunities for advanced study are provided for qualified students seeking graduate education and/or degrees. Comprehensive programs are offered under the joint supervision of the Office of Graduate Studies and the various colleges and schools. A strong partnership has been developed to assist students in realizing their educational goals.

The Office of Graduate Studies is the primary source of information about study for an advanced degree. Similarly, the Graduate Catalog is the official sourcebook to graduate programs at the University. General inquiries about graduate study should be directed to the Office of Graduate Studies. Specific questions regarding a major program should be directed to the college or school offering the program. Graduate students are held fully responsible for understanding and adhering to all policies and procedures established by the Office of Graduate Studies and the colleges and schools in which programs of study will be undertaken. Programs, regulations, and course offerings listed herein are subject to modification and/or deletion at any time by action of appropriate University authorities.
Colleges and Schools with Graduate Programs

- School of Architecture
- College of Agriculture and Human Sciences
- Marvin D. and June Samuel Brailsford College of Arts and Sciences
- College of Business
- Whitlowe R. Green College of Education
- Roy G. Perry College of Engineering
- College of Nursing
- College of Juvenile Justice and Psychology

Graduate programs leading to the Master of Arts degree, the Master of Science degree, the Master of Business Administration degree, the Master of Education degree, Professional Certification, Certificate Endorsements and the Doctor of Philosophy degree (Juvenile Justice, Clinical Adolescent Psychology, Electrical Engineering and Educational Leadership) are offered.

Prairie View A&M University offers all of its graduate degree programs on the main campus at Prairie View. However, it offers selected degree programs in education, business, engineering and nursing at distance sites primarily in the Houston area. Off-campus sites are located in Houston, Texas at the Prairie View A&M University Northwest Center, and the campus of the College of Nursing in downtown Houston.

Academic Advising, Registration, and Degree Plans

Graduate students are assigned to one or more faculty advisors during the first semester in which they are enrolled at the university. New students are required to meet with an advisor before enrolling in classes for the purpose of planning and obtaining approval of plans of study. Continuing students should confer with their faculty advisor at least once per semester to discuss objectives, course selection and sequencing, and other degree/program related matters. Consultation on all academic concerns should begin with the major advisor.

Class Schedule

The class schedule is available in advance of registration each semester on the website at http://panthertracks.pvamu.edu/.

An official class schedule, prepared each semester by the University, includes the registration schedule, procedures for registration, fees, classes offered by hours and instructors, and other pertinent registration information. The schedule is available several weeks in advance of registration.

Concurrent Study for Two Different Degrees

A student pursuing a graduate degree program at Prairie View A&M University may not simultaneously enroll and complete course work for the purpose of meeting requirements for any other degree offered by this institution. Each degree must be completed in its entirety before work may be taken for the purpose of meeting requirements for a new degree. Any questions regarding this policy should be directed to the Dean of Graduate Studies.

Tentative Degree Plans and Admission to Candidacy

The student should file a degree plan within the first semester of matriculation in the university. Degree plan forms may be obtained from the major advisor. The major advisor, department head, dean of the college and graduate dean review and approve the degree plan.

Admission to Candidacy: The graduate student admitted to full degree status does not automatically become a candidate for the master’s degree. To become a candidate, the student must complete the following minimum requirements:

1. Achieve a satisfactory score on the GRE or GMAT as stipulated by the department and college.
2. Prepare and submit an official Application for Admission to Candidacy Form showing the applicant’s successful completion of 12 semester hours of required graduate courses with an average of “B” or better.
3. Submit the official Application for Admission to Candidacy Form to the department head and college/school dean. The form will be submitted to the Graduate Dean for final approval.

Advancement to candidacy for doctoral programs is governed by the procedures of the program. Information for the specific program is found in this catalog under the degree description.

Time Limit on Work for Master’s Degree and Re-validation of Courses

A student must complete requirements for the degree within six consecutive years after the first date of enrollment in Graduate Studies. Credit for individual courses completed in residence between six and seven years before all requirements for the master’s degree are completed may be re-validated by special examination given by the department concerned. Courses completed in extension or at another institution beyond the time limit cannot be re-validated. A course in which a grade of “C” was earned cannot be re-validated. A re-validated course is valid as credit toward the master’s degree only during the term in which it is re-validated.
Academic Progress Standards

General Standards
In order to show satisfactory progress toward an advanced degree, a student must maintain an average grade of “B”. A course in which a grade below “C” was earned cannot be counted toward graduation requirements. A student who, in any two consecutive semesters or summer terms, has a cumulative grade point average below 3.00 is subject to academic dismissal. The work of a graduate student performed in connection with the thesis is reported as a regular grade.

Doctoral Program Standards
Ph.D. students remain in good standing when they maintain a minimum graduate GPA of 3.0 for coursework. Only grades of “B” or better count toward required coursework (i.e., all but the elective courses) and dissertation hours. Any grade lower than “B” in a required area course will necessitate that the course be retaken and passed with a grade of “B” or higher. While one grade of “C” in an elective course may be counted toward the Ph.D., only grades of “B” or better indicate satisfactory completion of courses required for the Ph.D. If a student receives a “C” for a class grade, there will be an automatic review of that student’s progress within one semester of when the grade is received. The Doctoral Committee will meet with the student to develop an appropriate response. If a second such grade is earned, the student will be dismissed from the program, but may petition the Doctoral Committee for readmission. After reviewing the petition, the committee may allow readmission under such conditions as it deems appropriate. A third grade lower than “B” will result in permanent dismissal from the program with no recourse to petition.

In the Spring semester of each academic year, a formal evaluation will be made of the progress of each doctoral student by the Doctoral Committee. This evaluation will focus on the student’s progress toward the Ph.D. degree. Students, attending full time and taking 12 units each semester, should be able to complete formal doctoral coursework within two full years. However, this constitutes a heavy course load and student progress in the program will be measured against the more reasonable average of 9-12 credit hours per a semester. Where needed, the Committee will provide recommendations and guidance to students. The Graduate Program Coordinator will provide evaluation forms the Committee is currently using. Committee decisions related to student progress will be one of the following:

1. Progress is satisfactory, student is encouraged to continue in the program;
2. Progress is potentially unsatisfactory, remediation work is suggested, student is encouraged to continue in the program, or
3. Progress is unsatisfactory, student should be terminated from the program.

Students receiving an unsatisfactory evaluation may petition the Dean to remain in the program. A copy of the petition form may be obtained in the Doctoral Program office. One petition is allowed.

Change of Major/Program
Under certain circumstances, it is possible for a student to change the graduate major/program. ONLY students who have a cumulative GPA of 3.0 or higher in all course work taken in post-baccalaureate standing at Prairie View A&M University are eligible to begin the process to change from one degree major/program to another. A complete application packet and application fee must be submitted to the Graduate School. The change must be completed during the regular registration period for a particular semester or term. (Note: A graduate student on academic probation cannot change major/program during this period; however, after successfully completing the probation period with a cumulative GPA of 3.0 or higher, he/she may reapply to the Office of Graduate Studies through the accepting Graduate Advisor, Department Head, and Academic Dean). The application will be subject to the approval of the Graduate Dean.

The Course Numbering System
Beginning with the 1984-85 academic year, Prairie View A&M University moved from a three-digit to a four-digit course numbering system. Under the new system, the first digit represents the course level (i.e., below college level/developmental 0, freshman 1, sophomore 2, junior 3, senior 4, and masters 5, doctoral 7). The fourth digit indicates the credit-hour value of the course.

Unit of Credit
The unit of credit used at Prairie View A&M University is the semester hour. A semester hour is the equivalent of one lecture contact hour per week for one semester. Time requirements for the semester credit hour in activities other than lecture vary according to the nature and objectives of the activities. The federal definition of the credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency.

Course Load
The following limitations on course loads are in effect:

1. This University defines full-time enrollment for a graduate student as a minimum of 9 semester credit hours during the regular fall and spring semesters and 6 semester credit hours for the summer semester.
2. During a regular session, a graduate student may not enroll in more than 12 semester credit hours without permission from the advisor, Department Head, and Dean. Approval from the respective college/school dean is required for 15 semester credit hours and approval from the Provost and Senior Vice President for Academic Affairs is required for any semester credit hours over 15.

3. During a five-week summer session, a graduate student may not enroll in more than six semester hours. The total credit hours earned for the two summer sessions may not exceed twelve.

4. A graduate student may not enroll in more than three semester credit hours during a three-week summer session.

5. A graduate student enrolled in a three-week session may not enroll in more than one three-hour course in the five-week session being conducted concurrently.

Repeated Course Grade

If a course is repeated, the official grade is the last grade earned. This is especially important for determining current GPA and could affect financial aid status, honor roll, candidacy for a student organization position, membership in an organization, graduation, or other opportunity. NOTE: Courses taken more than twice will be charged at a higher rate. See the section on Tuition and Fees.

Grade Reports

Students may acquire their mid-term and final grades via the WEB through http://panthertracks.pvamu.edu. Midterm grades are progress reports and are not recorded on the student’s permanent record. Final grades are recorded on the student’s permanent record at the close of each semester and summer term. If an error in the recording of grades is suspected, the student should report this immediately to the instructor, department head, or college dean for verification or correction.

Grading System

Course work for graduate students is reported as: “A” (95-100); “B” (85-94); “C” (75-84); “D” (65-74); “P” (Passing); “I” (Incomplete); “IP” (Incomplete Passing); “W” (Withdrawal from a class); “WV” (Voluntary Withdrawal), “AW” (Administrative Withdrawal), “MW” (Military Withdrawal).

A grade of “S”, may be given during the doctoral dissertation process; however, prior to submission of the final dissertation document the conventional grading system must be used. A grade of “S” may not be given as a final grade for doctoral candidates.

Incomplete “I” Grade

The grade of “I”, incomplete, is assigned to students who are unable to complete a course due to circumstances beyond their control. For lecture, seminar, independent study, and similar organized instruction courses, the student must complete the work necessary to remove the grade of “I” in one calendar year from the semester in which the “I” was awarded. All grades of “I” in courses that are included in the requirements for a degree must be replaced with a grade acceptable in the program. Students are not to re-enroll in a course for which a grade of “I” has been recorded.

In Progress “IP” Grade: An “IP”, in progress, is assigned to thesis, dissertation, internship, project, and practicum provided the student remains enrolled and makes satisfactory progress as certified by the committee chair, dean and director/coordinator of graduate program. The time allocated for removal of the “IP” shall be the same as the maximum time for completion of a degree or certificate.

Transfer of Credit

Graduate credit earned at another accredited institution, not exceeding six (6) semester hours, may be transferred and applied toward the master’s or the doctorate degree at Prairie View A&M University. Only courses with a grade of “B” or better may be transferred. An “A” grade from another institution or earned in extension may not be used to validate a grade of “C” earned at Prairie View A&M University. An official transcript denoting the transfer course(s), year, and grade received must be on file in the Office of the Registrar before acceptance of transfer credit is official. The official Approval of Transfer Credits Form, the official transcript (or copy of the official transcript on file in the Office of the Registrar) denoting the transfer course(s), year and grade(s) received, and a copy of the course description(s) from the transfer institution’s catalog must be received by the Graduate School before transfer credits may be reviewed for approval.

This institution will not consider credits from other institutions to meet requirements for a graduate degree unless the institution offering the courses will allow these credits to be applied toward the requirements of an advanced degree on its own campus. Under no circumstances will transfer course work be considered that will be more than six (6) years old at the time the degree is awarded.

Degree Majors - Graduate Level (Doctoral level where designated)

<table>
<thead>
<tr>
<th>Department</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture and Human Sciences</td>
<td>MS Human Sciences</td>
</tr>
<tr>
<td>School of Architecture</td>
<td>MARCH Architecture</td>
</tr>
<tr>
<td>Brailsford College of Arts and Sciences</td>
<td>MS Chemistry</td>
</tr>
<tr>
<td>College of Business</td>
<td>MS Accounting</td>
</tr>
</tbody>
</table>
General Requirements

The following requirements apply to all graduate degree programs. Specific degree requirements may be found in the appropriate college sections of this catalog. All candidates expecting to graduate must file an application for the degree. The deadline for filing an application for the degree is published each semester by the Registrar. Upon completion of all requirements for the master's degree, candidates are certified for graduation by the Dean for Graduate Studies. Degrees are publicly conferred at each University Commencement.

Registration Requirement: Students completing work required for a degree must be enrolled during the term in which the work is completed and the application for graduation is filed. A fee is required for registration in absentia.

Application for Graduation

A student who plans to receive a degree from Prairie View A&M University must apply for graduation online a semester before the anticipated graduation date. Students are to apply by the published deadline available on the website via the academic calendar for each graduation semester (fall, spring, or summer).

To start the process, complete the graduation checklist found online via PantherTracks at the “Apply to Graduate” link, then process the online application. A fee is required as part of the application process and will be billed to the student at the time the application is electronically submitted. Students who apply for graduation that are not enrolled for the term in which they plan to graduate will be charged an absentia fee. Finally, students receiving financial aid must participate in the financial aid exit loan process and should visit the Office of Student Financial Aid for assistance.

Degrees for students who are indebted to the University or have not completed “Exit Loan Counseling” will be posted, if earned, but the transcript and diploma will be withheld until the debt is paid, the exit loan counseling completed, and the hold removed by Student Financial Aid.
Cancelling a Graduation Application After Submission to the Registrar’s Office

A student has 10 business work days after the application deadline to cancel an application. No cancellations will be accepted after this period. The Graduation Cancellation Form (Forms Library-WEB) must be completed and submitted to the Office of the Registrar by the graduation applicant. Graduation fees are non-refundable and non-transferable.

Graduate Thesis and Dissertation Committees

The school/college dean identifies all faculty qualified to serve as Chair for a thesis, dissertation or project report committee. In consultation with the qualified faculty member, the graduate program coordinator, the department head, and the student select a committee chair. The Committee Chair and the student collaborate to identify the members of the committee. The Dean for Graduate Studies is responsible for approving the assignment of faculty to graduate committees. It should be noted on all documents, including the thesis, dissertation or project reports when the graduate committee chair is not the thesis/dissertation/project report research advisor.

Graduate Thesis, Dissertation or Project Report

The graduate thesis, dissertation or project report must be signed by the thesis and dissertation committee members, college graduate program coordinator, department head, and dean; it must be prepared in a style and format that is prescribed by the specific degree program. Not later than two weeks prior to the last day of classes for the term or semester the student must submit a final draft of the thesis, dissertation or project report to the Office of Graduate Studies for approval. If the manuscript meets the style and format criteria established by the faculty of a specific degree program, the student will be permitted to submit the document to the student’s graduate advisory committee for approval and signature.

Not later than two weeks prior to the last day of classes for the term or semester, the student must submit a final draft of the thesis, dissertation or project report to the Office of Graduate Studies for review and approval. All format changes, if any, will be submitted to the student and the Committee Chair for revision. Upon completion of the revision the student may submit the document for binding.

The bound copies of the signed thesis, dissertation or project report must be submitted to the Office of Graduate Studies not later than 30 days after the date of commencement. ALL school/college signatures (Committee chair and members, graduate program coordinator, department head, and dean) must be affixed to the document prior to submission to the Office of Graduate Studies. The Office of Graduate Studies requires two bound copies. Additional copies may be required by the College or School. The Graduate Studies Office will be responsible for distributing the copies to the appropriate offices.

An oral examination is required of thesis and dissertation students. The oral examination is designed to test verbal and explanatory abilities of students as they explain and defend their research. The examining body is the student’s Graduate Thesis/Dissertation Committee and may include other interested departmental faculty. The Office of Graduate Studies may assign a member of the Graduate Council to attend or monitor an oral examination. The examination can be repeated only once.

Probation and Dismissal

All graduate students are required to maintain a 3.0 cumulative grade-point average. If a student’s cumulative GPA falls below 3.0 during any semester of enrollment, the student will be placed on academic probation. In the next semester of enrollment, the student must raise his/her GPA to 3.0 or above or be dismissed from Graduate Studies.

Academic Appeal Process

A Notice of Academic dismissal will be provided by the Office of the Registrar for graduate students who have been dismissed for failure to maintain the required 3.0 cumulative grade-point average. The notice will include instructions for submitting an electronic appeal. Students should carefully review the instructions for submitting the electronic appeal and adhere to the prescribed format. An incomplete appeal will not be processed. Students should not email, contact by phone or visit any member of the Appeals Committee. The Notice of Academic Dismissal will generally be transmitted to the respective graduate students via email by the 5th working day after grades have posted for the term. The term deadlines for submitting the electronic appeal will be determined by the Office of Graduate Studies and provided in the Notice of Academic Dismissal. Information regarding deadline dates will also be available in the Office of Graduate Studies, on its website, and via Campus Announcements.

<table>
<thead>
<tr>
<th>Notice of Academic Dismissal</th>
<th>Deadline for Submitting Electronic Appeal</th>
<th>Notice of Approval or Denial of Academic Appeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th Working Day after Grades have been posted for the term of dismissal</td>
<td>Not later than 2 weeks after Notice of Academic Dismissal</td>
<td>Not later than 20th Class Day of the term immediately after the term of dismissal</td>
</tr>
</tbody>
</table>

Readmission after Academic Dismissal. A graduate student may file a written appeal to the Dean of the college or school in which he/she was previously enrolled. An appeals Committee in the college or school shall review the appeal and transmit a recommendation to the Dean of the college or school. who will make a recommendation to the Dean for Graduate Studies. If a graduate student is re-admitted after dismissal, he/she must maintain a cumulative 3.0 GPA in each semester of enrollment or be dismissed again. Individual graduate programs may also impose additional cumulative GPA restrictions for their students.
Sources of Financial Aid Graduate Teaching and Non-Teaching Assistantships

University Graduate Non-Teaching and Teaching Assistantships are managed by the schools and colleges. These appointments are available for full-time, enrolled graduate students. Assistantships may be distinguished as follows:

1. A graduate teaching assistant has at least a bachelor’s degree and eighteen graduate credits in the field in which employment is held. A graduate teaching assistant may assist the professor of record by giving lectures and carrying out other classroom teaching, and may prepare and grade examinations under the direct supervision of an experienced faculty member.

2. A graduate non-teaching assistant must have a bachelor’s degree and may be assigned to tasks that do not involve classroom teaching. Such activities may include laboratory assistance, research assistance, grading objective examinations, keeping class records, and performing similar functions.

3. A doctoral teaching assistant must have a master’s degree, be fully admitted to a PhD program and have a minimum of 18 graduate credits in the field in which employment is held. A doctoral teaching assistant is the teacher of record but performs teaching duties under the supervision of an experienced faculty member.

4. A doctoral research assistant must have a master’s degree and be fully admitted to a PhD program. Assignments may include assisting in faculty research, writing grant proposals, and performing grant related assignments.

International students “for whom English is a second language” may be appointed as graduate teaching assistants only when results of a test of spoken English or other reliable assessment of the applicant’s proficiency in oral communication and speech indicates that the appointment is appropriate.

Supervision

Each assistant must be assigned to a supervisor who will give guidance and assist the student in carrying out work assignments. The supervisor is responsible for assigning tasks, monitoring the progress of work, keeping a record of hours worked, and evaluating the performance of the student. At the end of each school year, each supervisor must submit an evaluation of the work performance of the students supervised.

Graduate Teaching Assistant Appointment Criteria

1. Must be enrolled as a full-time graduate student at Prairie View A&M University.
2. Must have a minimum of eighteen (18) graduate credits in the teaching field.
3. Must be in good academic standing.

Graduate Non-Teaching Assistant Appointment Criteria

1. Must be enrolled as a full-time graduate student at Prairie View A&M University.
2. Must be in good academic standing.

Doctoral Teaching Assistant Appointment Criteria

1. Must be enrolled as a full-time doctoral student at Prairie View A&M University.
2. Must have a master’s degree and a minimum of eighteen (18) graduate credits in the teaching field.
3. Must be in good academic standing.

Doctoral Research Assistant Appointment Criteria

1. Must be enrolled as full-time doctoral student at Prairie View A&M University.
2. Must be in good academic standing.

Application Procedures

Students who wish to apply for assistantships must do so on forms available in the Office of Graduate Studies. Approval of an application depends upon the student’s academic background, present status, and the availability of funds. Assistants in academic departments work under the supervision of appointed faculty members. In other units, the Head of the Department or the appointed supervisor provides supervision.

An application approved by a department is submitted to the Coordinator of Graduate Programs for final action. Once approved, appropriate forms are submitted to the student employment office for processing. Once the student’s name is entered on the payroll, payment is made at a designated time each month.

Where separate funding sources are involved, doctoral students who wish to apply for assistantships must do so on forms available in their program office. Approval of an application depends on the student’s academic background, current skills, and the availability of funds. Doctoral assistantships are awarded on a competitive basis. The Dean of the college or school housing the doctoral program and overseeing the funding source is the final authority. However, appropriate forms are submitted to the Office of Graduate Studies for normal processing.
Remuneration

Assistants may work no more than 20 hours per week. The rate of pay is based on the academic training and experience of the assistant and is specified as follows:

Prairie View A&M University believes that the intellectual and moral growth of students occurs both within and outside the formal classroom setting. Residential and social life experiences are regarded as learning opportunities, significant in their own right and complementary to those provided within the academic curriculum. Thus, the University is committed to providing a co-curricular environment that supports individual needs, and actively contributes to the University’s residential and community life. A complete listing of the University’s student services is provided in the Prairie View A&M University Student Conduct Code and Handbook. Those services that are particularly relevant to academic life at the University are briefly described below.

Graduate Provisional and Special Students

Graduate Provisional Students are conditionally admitted to the University’s Graduate programs and usually have to complete certain requisites to be fully admitted as a regular graduate student to their respective specific programs. Due to this status, graduate provisional students are limited to the eligibility of a fifth-year undergraduate student. Graduate Special Students are ineligible for aid.

Academic Information and Regulations

Credit from Sources Other Than Prairie View A&M University

Courses accepted for transfer credit must be from a college or university accredited by one of the regional accrediting agencies for higher education and must be similar in character and content to courses offered at Prairie View A&M University. Some credits accepted as transfer credits may not apply to a degree program. Duplicate, developmental, remedial, and study skills courses are not transferable credits. A maximum of 90 credit hours of course work transferred from an upper division institution may be applied toward a degree. A maximum of 66 credit hours of course work transferred from a lower division institution may be applied toward a degree. A maximum of 30 credit hours may include Advanced Placement, CLEP, Correspondence, Military Training, or Extension Courses.

Only courses with grades of “C” or above will be accepted for transfer, except in the case of sequential courses in which a “D” was earned in the first course and a grade of “B” or better was earned in the second course at the same institution. No credit is allowed for work experience or work completed at non accredited institutions except by AP or CLEP examination. If a transfer course has been graded on a pass/fail basis, the college/university at which the course was taken must provide written documentation to the Registrar that the course was passed at a grade level equivalent of “A”, “B”, or “C”. Additionally, only courses with a grade of “C” or better may be accepted towards credit in either the major or the minor. Courses taken at community/junior colleges will not be accepted for transfer at the upper division (junior/senior) level.

Courses being transferred from an institution outside the territorial United States must be evaluated. Students are required to have their course work evaluated by one of the following or an equivalent recognized service and are to submit the evaluation to the Office of Undergraduate or Graduate Admissions at least thirty (30) days before the beginning of the semester for which the student wishes to enroll.

The Educational Credential Evaluators, Inc.
P.O. Box 514070
Milwaukee, Wisconsin 53203-3470
414-289-3400

Span Tran Educational Services
7211 Regency Square Blvd. Ste. #205
Houston, Texas 77036
713-266-8805

For a transfer student to complete the application file and finalize the admission process, a final transcript must be sent directly from the community/junior college or university. It is the responsibility of the student to request that the transcript be sent. If the transcripts submitted as part of the application procedure are final and official, additional transcripts are not required.

Correspondence and Extension Courses

Correspondence or extension courses will be treated as transfer courses and not included in the cumulative GPA. All such courses must be approved by the dean of the respective college before they are accepted as transfer credit in a degree program.

Military School Credit

Credit for courses taken at military schools or by correspondence will be evaluated for acceptance by the Office of the Registrar in accordance with American Council on Education guidelines. Credit will be awarded upon a military student’s matriculation as a student at the University’s main campus or approved off-campus sites.
Prior Learning Assessment

Prior Learning Assessment Credit (PLA) includes: Experiential Learning Portfolio (ELP), Advanced Placement (AP), College-Level Examination Program (CLEP) DANTES Subject Standardized Tests (DSST) and International Baccalaureate Organization (IBO) exams. Official PLA transcripts should be presented for evaluation prior to the semester in which graduation is planned and/or at the time of admission. Credit for PLA is subject to the total hour limitation of 30 semester credit hours.

Students wishing to inquire about PLA credit must contact the Testing Center at 936-261-3627 or at aetesting@pvamu.edu. Letter grades will not be awarded for advanced placement achievement, and the AP, CLEP credits will not be counted in the student's cumulative GPA. Students receive only applicable credit hours for satisfactory achievement on all AP exams. Applicable AP credits received at other institutions may be applied toward degree plan requirements at PVAMU provided they were awarded as letter grades at the other institution or an official AP transcript is sent to PVAMU designating the grade or score received on the AP exam. AP scores or transfer credits cannot be taken from other university or college transcripts, and PVAMU does not accept scores submitted from students. If a course has been taken and failed at Prairie View A&M University, it may not be replaced by a subsequent Prior Learning Assessment. A student may take a CLEP or DSST exam to receive credit for a course previously failed at the University; however, the CLEP or DSST credit will not replace the failed grade on the student’s official transcript.

Experiential Learning Portfolio

An Experiential Learning Portfolio can be created to give students college credit for life or work experience. The CURR 1003 course is for students who need to create their portfolio. Credit is awarded for demonstrated learning, NOT experience alone. Students must be TSI Complete to enroll in the CURR 1003 course. The most popular portfolio topics include: Business and Management, Information Systems/Technology, Human Resources, Finance/Accounting, Criminal Justice/Legal, Hospitality/Event Management and Healthcare Administration. To see what options would be best for you, visit the Learning Counts website and try the College Credit Predictor Tool (http://www.learningcounts.org).

Scores must be received from the Council for Adult & Experiential Learning (CAEL) on an official transcript before credit is awarded.

Advanced Placement Testing (AP)

Advanced Placement Tests are developed by the College Board and administered nationally at approved test sites where the Scholastic Aptitude Test is administered. Scores on the national Advanced Placement Test between the levels of 3 and 5 will be acceptable for credit.

Scores must be received from the College Board on an official AP Student Grade Report before credit is awarded.

College Level Examination Program (CLEP)

The CLEP is a national testing program offering students the opportunity to earn college credit by examination. The University will accept credit by examination in American Literature, General Biology, General Chemistry, College Composition, English Literature, Foreign Languages, American Government, American History, and Mathematics. The acceptance of credit by the University does not assure the application of this credit to a specific degree or other program.

CLEP tests taken at Prairie View A&M University will normally be counted in the student's cumulative grade point average (GPA). If a course has been taken and failed at Prairie View A&M University and a CLEP test for that course is subsequently taken and passed, the CLEP grade will not be counted in the cumulative GPA and will not replace the failed grade on the official transcript. It will satisfy the degree requirement. CLEP tests taken through other institutions will not be included in the cumulative GPA. Scores from the general knowledge tests will not be accepted. Only scores from the subject tests will be accepted.

Scores must be received from the College Board on an official CLEP Score Report before credit is awarded.

DANTES Subject Standardized Tests

The DSST is a national testing program offering students the opportunity to earn college credit by examination. The University will accept credit by examination in Personal Finance, Cultural Geography, and Speech. The acceptance of credit by the University does not assure the application of this credit to a specific degree or other program.

DSST exams taken at Prairie View A&M University will normally be counted in the student's cumulative grade point average (GPA). If a course has been taken and failed at Prairie View A&M University and a DSST test for that course is subsequently taken and passed, the DSST grade will not be counted in the cumulative GPA and will not replace the failed grade on the official transcript. It will satisfy the degree requirement. DSST exams taken through other institutions will not be included in the cumulative GPA. Scores from the general knowledge tests will not be accepted. Only scores from the subject tests will be accepted.

Scores must be received from DSST on an official transcript before credit is awarded.

International Baccalaureate Organization (IBO)

Prairie View A&M University (PVAMU) recognizes the International Baccalaureate program for those students who earn the IB diploma, or a specific grade in the IB course. Presently, PVAMU awards credits for IB courses taken at the both the Higher Level (HL), and Standard Level (SL).
**IB Limitation**

Students who earn an IB diploma may be given credit for at least 24 Semester Credit Hours (SCH) at PVAMU provided that they score at least a 4 on each subject exam. However, it will be the student’s responsibility to request such credit. PVAMU strongly encourages students to meet with their academic advisor to determine how much credit will best serve their degree matriculation. Students who score less than a 4 will not be granted credit for that particular exam. No grade will be awarded; only SCH for specific courses. Credit will not be awarded for an exam if the student is enrolled in the course of has already taken the course.

**IB Acceptable Scores and Credit**

An official score report must be received from a first-time freshman (or any student who has not received college credit for these exams at another institution) before credit will be awarded. A transfer student, who has received credit for one or more IB exams at another institution, may be granted SCH at PVAMU upon receipt of an official transcript from the other institution as long as the credit awarded at the other institution is transferable to PVAMU.

A student must earn the International Baccalaureate diploma and receive a score of at least a 4 to receive SCH for the IB exam. Students who take the IB exam without achieving the IB diploma will be evaluated on an individual basis.

**Advanced Placement Examinations Course Equivalency Table**

<table>
<thead>
<tr>
<th>Examination</th>
<th>Score</th>
<th>Semester Credit Hours</th>
<th>University Course Name</th>
<th>University Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>6</td>
<td>ARTS</td>
<td>ARTS 2223 &amp; ARTS 2233</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>10</td>
<td>BIOL</td>
<td>BIOL 1015 &amp; BIOL 1025</td>
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<tr>
<td>Calculus AB</td>
<td>3</td>
<td>4</td>
<td>MATH</td>
<td>MATH 1124</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>4</td>
<td>8</td>
<td>MATH</td>
<td>MATH 1124 &amp; MATH 2024</td>
</tr>
<tr>
<td>Calculus BC</td>
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<td>4</td>
<td>MATH</td>
<td>MATH 1124</td>
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<tr>
<td>Chemistry</td>
<td>3</td>
<td>6</td>
<td>CHEM</td>
<td>CHEM 1033 &amp; CHEM 1043</td>
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<tr>
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<td>6</td>
<td>CHIN</td>
<td>CHIN 1013 &amp; CHIN 1023</td>
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<tr>
<td>Chinese - Language</td>
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<td>6</td>
<td>CHIN</td>
<td>CHIN 1013 &amp; CHIN 1023</td>
</tr>
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<td>Chinese - Language</td>
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<td>CHIN 1013, CHIN 1023, CHIN 2013 &amp; CHIN 2023</td>
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<tr>
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<td>3</td>
<td>6</td>
<td>COMP</td>
<td>COMP 1013 &amp; COMP 1213</td>
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<tr>
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<td>3</td>
<td>ENGL</td>
<td>ENGL 1123</td>
</tr>
<tr>
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<td>3</td>
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<td>ENGL 1123</td>
</tr>
<tr>
<td>English - Language and Composition</td>
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<td>6</td>
<td>ENGL</td>
<td>ENGL 1123 &amp; ENGL 1133</td>
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<tr>
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<td>ENGL</td>
<td>ENGL 2153</td>
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<td>FREN 1013 &amp; FREN 1023</td>
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<tr>
<td>French - Language</td>
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<td>6</td>
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<td>FREN 1013 &amp; FREN 1023</td>
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<td>ECON 2123</td>
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<td>Music Theory</td>
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<td>3</td>
<td>MUSC</td>
<td>MUSC 1233</td>
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<tr>
<td>Physics 1</td>
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<td>4</td>
<td>PHYS</td>
<td>PHYS 2513 &amp; PHYS 2511</td>
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<tr>
<td>Physics 2</td>
<td>3</td>
<td>4</td>
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<td>PHYS 2523 &amp; PHYS 2521</td>
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<td>Psychology</td>
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<td>PSYC</td>
<td>PSYC 1113</td>
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<tr>
<td>Spanish – Language</td>
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<td>6</td>
<td>SPAN</td>
<td>SPAN 1013 &amp; SPAN 1023</td>
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<tr>
<td>Spanish – Language</td>
<td>4</td>
<td>6</td>
<td>SPAN</td>
<td>SPAN 1013 &amp; SPAN 1023</td>
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</tbody>
</table>
Spanish – Language 5 12 SPAN SPAN 1013, SPAN 1023, SPAN 2013 & SPAN 2023
Spanish – Literature 3 6 SPAN SPAN 3023 & SPAN 3033
Statistics 3 3 MATH MATH 2003

Courses For Which CLEP Credit Can Be Earned

<table>
<thead>
<tr>
<th>Name of Examination</th>
<th>Required Score</th>
<th>Course Credit</th>
</tr>
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<tbody>
<tr>
<td>Composition and Literature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>ENGL 2423</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>ENGL 2153</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>ENGL 2263</td>
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<tr>
<td>College Composition</td>
<td>53</td>
<td>ENGL 1123 &amp; ENGL 1133</td>
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<tr>
<td>College Composition Modular Writing†</td>
<td>55, 3/4</td>
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<td>Humanities</td>
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<td>Foreign Languages</td>
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<tr>
<td>French Level I</td>
<td>50</td>
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</tr>
<tr>
<td>French Level II</td>
<td>59</td>
<td>FREN 2013 &amp; FREN 2023</td>
</tr>
<tr>
<td>Spanish Level I</td>
<td>50</td>
<td>SPAN 1013 &amp; SPAN 1023</td>
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<tr>
<td>Spanish Level II</td>
<td>63</td>
<td>SPAN 2013 &amp; SPAN 2023</td>
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<tr>
<td>History &amp; Social Sciences</td>
<td></td>
<td></td>
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<td>American Government I</td>
<td>52</td>
<td>POSC 1113</td>
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<td>American History I…I…1877</td>
<td>50</td>
<td>HIST 1313</td>
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<td>American History II…I…1865</td>
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<td>Human Development</td>
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<td>Science &amp; Mathematics</td>
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<td>Algebra</td>
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<tr>
<td>Precalculus</td>
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<td>Calculus</td>
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<td>MATH 1124</td>
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<td>General Biology</td>
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<td>BIOL 1113 &amp; BIOL 1111</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>52</td>
<td>CHEM 1013 &amp; CHEM 1023, CHEM 1011 &amp; CHEM 1021</td>
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<tr>
<td>Business</td>
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<td></td>
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<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>ACCT 2113</td>
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<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>BLAW 2203</td>
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<tr>
<td>Principal of Management</td>
<td>50</td>
<td>MGMT 3103</td>
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<tr>
<td>Principles of Marketing</td>
<td>50</td>
<td>MRKT 3103</td>
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<tr>
<td>Information Systems &amp; Computer Applications²</td>
<td>50</td>
<td>MISY 1013 or COMP 1003</td>
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<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>ECON 2123</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>ECON 2113</td>
</tr>
</tbody>
</table>

1. Student must score at least a 3 out of a 4 on a departmental writing component scored by the faculty.
2. Major Driven

Information can be obtained by contacting the following office:

Academic Engagement and Student Success
The Testing Center
Prairie View A&M University
P. O. Box 519; MS 3002
Prairie View, TX 77446-0519
Phone: (936) 261-3627
Email: aetesting@pvamu.edu
Website: pvamu.edu/testing
IMPORTANT NOTES about the TSI Assessment:

• The TSI Assessment is a computer-based exam. If you do not like the score you received, you may re-test. Re-testing is not free. You will have to pay for each section you retest.
• The cost for the exam is $10/section. You can find out which section you need to take by emailing tsi@pvamu.edu or calling (936) 261-3610.
• Electronic score reports are available immediately. The exception to this may be the essay portion of the exam. On occasion these tests are hand graded and your score will be available within 24 hours.
• Scores may not be entered on your transcripts if any or all outstanding fees that are applicable are not paid in full.
• Scores are generally entered into the system within 72 hours of test completion.
• Calculators are NOT permitted. If a calculator is needed, one will pop up on the computer screen for your usage.
• The test session is (5) hours long. The time may be used to work on any or all three sections of the test. You may leave when you are finished.

Test Day Regulations:

Items NOT allowed in testing room:

• Briefcases or packages
• Baseball caps and non-religious headwear
• Watches with alarms
• Highlighters
• Cameras (watch for pocket sized cameras), electronic pagers, or any other electronic or communication devices;
• Calculators, calculator watches;
• Slide rules, dictionaries, or spell checkers;
• Books, notes, notebooks, paper, or study aids;
• Food or beverages (unless prior written approval is granted)

ALL CELLPHONES ARE TO REMAIN OFF (not silent, vibrate or airplane mode) DURING TESTING. If a cell phone vibrates or causes computer disruption, you will be asked to leave. this is NON NEGOTIABLE. All belongings MUST be locked up in the lockers provided for you.

If you have any of the items listed above after the test begins, you may be requested to leave testing site IMMEDIATELY and your scores will be cancelled.

To sign up for testing visit www.pvamu.edu/testing

PVAMU Testing Center Cheating Policy

This document serves to inform students utilizing the Prairie View A&M University Testing Center of the university policy on cheating and the repercussions of such actions.

Part I:

PVAMU has set forth a policy regarding academic dishonesty.

The university and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating, plagiarism and collusion. Cheating or plagiarism in any degree will not be tolerated by Prairie View A&M University and will result in NO LESS that immediate dismissal from the examination in question. Further proceedings to have the violator suspended from class and/or from the college may be initiated through the current policy of the university on grievances.

CHEATING INCLUDES:

1. Copying from another student’s test paper, laboratory report or other report, or computer files, data listings and/or programs.
2. Using materials during a test that are not authorized by the test administrator.
3. Collaborating with another person or persons during an examination or in preparing academic work without authorization.
4. Knowingly, and without authorization, using, buying, selling, stealing, soliciting, copying or possessing, in whole or in part, the contents of an un-administered test.
5. Substituting for another student, permitting any other person, or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or the preparation of academic work to be submitted for academic credit.
6. Purchasing or otherwise acquiring and submitting as one’s work any research paper or writing assignment prepared by an individual or firm.
7. Accessing “other” data files during exams, quizzes or other computerized testing programs.

Anyone who knowingly falsifies, or is a party to the falsifying of, any official university record (including, but not limited to, electronic test scores, Texas Success Initiative score reports, admission documents, or transcript information) will be subject to any or all of the following penalties:
1. Withdrawal from all classes with no refund
2. Dismissal from the institution
3. Loss of credit earned while they were using documents to falsify their records

Part II:
The PVAMU Testing Center is monitored by two-way surveillance mirrors and proctors who periodically roam the room while testing. In addition to this security, all computer exams administered are remotely monitored from a central location where student desktops are available for viewing at all times. Your verbal and nonverbal actions, regardless of intention, will be observed and may be reported while present at the Testing Center.

You will be required to put all miscellaneous items including, but not limited to, purses, backpacks, notebooks, coats, hats, cell phones, pagers and textbooks in a pre-assigned locker. You may not access these items while taking your test. Cell phones, pagers and other electronic communication devices must be turned off prior to placing them in the locker. No baseball caps or “hoodies” may be worn in the testing center. If you need to take a jacket/sweater into the testing room, it must be inspected by testing personnel prior to entry into the testing center.

The PVAMU Testing Center will NOT tolerate cheating. Without exception, those suspected of cheating will be immediately dismissed from the Testing Center and the student will not be allowed to test until the cheating case against them has been resolved.

Part III:
If you are caught cheating, your punishment will be decided by the Associate Director of University College. You will be notified via e-mail once the decision has been made. You may appeal the decision to the Director of University College within ten (10) business days from the receipt of the letter.

Please note that your case may be forwarded to the office of your specific major and the Office of Student Conduct for further review.

Credit Transfer for Associate Degree (Effective with the Fall 2013 semester)
Any student
• who transferred to Prairie View A&M University from or previously attended a lower division institution of higher education in Texas and;
• has earned at least 30 credit hours for course work successfully completed at the lower-division institution of higher education; and
• has earned a cumulative total of at least 66 credit hours for course work successfully completed

is eligible for the Reverse Articulation program. For more information contact the Office of the Registrar.

Admissions Information and Requirements
Admission to Prairie View A&M University is open to qualified individuals, regardless of race, color, religion, gender, national origin, or educationally unrelated disability. Academic preparation and commitment to succeed are major criteria for admission to the University. All inquiries about admission, application for admission, and transcripts of credit should be addressed to the Office of Undergraduate Admissions, Prairie View A&M University, P.O. Box 519, Mail Stop 1009, Prairie View, Texas 77446. The telephone number for the Office of Undergraduate Admissions is (936) 261-1000 option 3.

Undergraduate Information

Freshman Admission
Freshman applicants for college admission are those who have graduated from high school, are nearing completion of high school or have earned a General Equivalency Diploma (GED). Applicants must satisfy the freshman admission requirements. All freshman applicants must submit test results from either the American College Testing (ACT) Examination or the Scholastic Aptitude Test (SAT-I).

Applicants for admission to the freshman class should submit their application materials as early as possible in their senior year of high school. All students are required to submit the ApplyTexas Application (http://www.applytexas.org) for admission and a nonrefundable $40.00 processing fee. Transcripts submitted should include all semesters of high school credits as soon as grades are available. Applicants are requested to furnish final transcripts immediately following graduation from high school. All students are required to have Texas Success Initiative Assessment (TSIA) scores on file prior to registration.

Application
Eligibility for admission is determined by evaluation of the completed application and supporting documents. All first time college freshmen must submit the following items to the Office of Undergraduate Admissions:
Completed Apply Texas Application for Admission.

A $40 nonrefundable processing fee which is due for each semester an applicant applies. An additional $15 late fee will be assessed for applications submitted after the deadline date. A fee waiver may be submitted in lieu of the $40 fee by first time freshmen students only. The university accepts ACT, SAT, or NACAC Application fee waivers. **Faxed, e-mailed or scanned waivers will not be accepted.**

Official high school transcript for all previous work showing completion, or GED certificate showing that the equivalent of a diploma has been earned.

An official SAT Reasoning Test or ACT score report. Scores may be sent directly from the testing agency or from your high school. **Faxed, e-mailed or scanned reports will not be accepted.**

For a freshman to complete the application file and finalize the admission process, a final transcript must be sent directly from the applicant’s high school. It is the responsibility of the student to request the transcript be sent. The high school transcript must include the graduation date and rank in class. **Faxed, emailed or scanned transcripts will not be accepted.**

Admission to the Roy G. Perry College of Engineering

Transfer students include those from other units within Prairie View A&M University as well as those from other educational institutions. Transfer students external to Prairie View A&M University must furnish an official transcript to the Office of Undergraduate Admission for evaluation of all college level work completed. Transfer students with less than 30 semester hours of transferable credits are admitted under the criteria for first time freshmen. (See Freshman Admission).

Students with 30 semester hours or more of transferable credit must meet the following requirements:

1. Students must meet the Prairie View A&M University and the Roy G. Perry College of Engineering admission requirements.
2. Must have “C” or higher in all transfer courses.
3. Must have a minimum cumulative grade point average of 2.50 on a 4.00 scale in all math, science and engineering courses.

Students who meet these criteria will be admitted directly into a major. Those students who do not meet the criteria will need to have their records reviewed and be considered on individual merits for conditional admission by the Roy G. Perry College of Engineering.

Penalties

Any applicant who provides false or misleading information for proper determination of admission and residency is subject to any or all of the following penalties:

1. Withdrawal from all classes with no refund
2. Dismissal from the institution
3. Loss of credit earned while under incorrect admission or residency status

A written appeal must be submitted to the Office of Undergraduate Admission Advisory Committee, P. O. Box 519, Mail Stop 1009, Prairie View, Texas 77446

Resolution of Transfer Disputes for Lower-Division Courses

To assist students who transfer to Prairie View A&M University from other public colleges and universities in Texas, the University carefully evaluates course credits presented for acceptance toward fulfillment of degree requirements. In the event the University denies credit for a course a student has taken at another institution, notification of that denial will be transmitted to the student.

1. The following procedures shall be followed by institutions of higher education in the resolution of credit transfer disputes involving lower-division courses:
   a. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied, and shall include in that notice the reasons for denying the credit. Attached to the written notice shall be the procedures for resolution of transfer disputes for lower-division courses as outlined in this section, accompanied by clear instructions outlining the procedure for appealing the decision to the Commissioner.
   b. A student who receives notice as specified in paragraph (1) of this subsection may dispute the denial of credit by contacting a designated official at either the sending or the receiving institution.
   c. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Board rules and guidelines.
2. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the sending institution may notify the Commissioner in writing of the request for transfer dispute resolution, and the institution that denies the course credit for transfer shall notify the Commissioner in writing of its denial and the reasons for the denial. The Commissioner or the Commissioner’s designee shall make the final determination about a dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions.
3. The Board shall collect data on the types of transfer disputes that are reported and the disposition of each case that is considered by the Commissioner or the Commissioner's designee.

4. If a receiving institution has cause to believe that a course being presented by a student for transfer from another school is not of an acceptable level of quality, it should first contact the sending institution and attempt to resolve the problem. In the event that the two institutions are unable to come to a satisfactory resolution, the receiving institution may notify the Commissioner, who may investigate the course. If its quality is found to be unacceptable, the Board may discontinue funding for the course.

**Academic Fresh Start Admission**

According to Section 51.931 of the Texas Education Code, a Texas resident may apply for admission to the University as an undergraduate student and request that course credit or grades earned ten or more years prior to the semester the applicant plans to enroll not be considered. The applicant must meet the standards for one of the other types of admission. Students admitted under the “fresh start” option may not receive credit for any course work taken ten or more years prior to enrollment. A student who elects the fresh start will forfeit TSIA exemption normally awarded to a student who had earned 3 SCH of transferable college work before 1989.

Admitted Fresh Start applicants have “Academic Fresh Start” indicated on their official Prairie View A&M University transcript. Forfeited course work cannot be considered as prerequisites, but placement examinations are allowed for courses that were not considered for admission because of the Fresh Start. Once admitted on Academic Fresh Start, the enrolled student cannot subsequently request that the Fresh Start policy restrictions be removed.

Students must submit a written request to the Office of Undergraduate Admissions to enter under the Academic Fresh Start admission option. The Fresh Start Program provisions can be used only once at Prairie View A&M University. If an applicant has used the Academic Fresh Start Policy at a previous school, the Academic Fresh Start will remain in effect at Prairie View A&M University upon transfer.

There may be implications for financial aid and veteran’s benefits for students admitted under Academic Fresh Start.

**Automatic Admissions**

Applicants from Texas accredited high schools who graduate in the top 25% of the high school graduating class and have completed the recommended, distinguished or foundation with endorsement programs of achievement.

**Freshman Admissions Criteria**

- Official high school transcript. Distinguished, Recommended or Foundation with Endorsements High School Program or GED Certificate
- Minimum GPA: 2.75 on a 4.0 Scale
- Official SAT/ACT Minimum Scores: 710 SAT (Critical Reading & Math) or 800 (New SAT - Total Score) or 15 ACT
- The following STARR scores are required: English I/Reading & Writing, English II, Biology, Algebra I, and United States History

**Admission to the Roy G. Perry College of Engineering**

Admission to the Roy G. Perry College of Engineering is based on the University’s undergraduate admissions requirements plus the following additional admissions criteria for the Roy G. Perry College of Engineering. For more detailed information and the categories, proceed to the Roy G. Perry College of Engineering General Information section.

**General Transfer Admission**

Applicants who have earned fewer than 15 transferable semester credit hours (SCH) and have a 2.0 college grade point average (GPA) will be admitted if they satisfy the regular requirements for freshman admissions. (See Freshman Admissions). This applicant must have graduated high school within the previous (12) months.

A student transferring from community/junior college or another university with 15 or more transferable semester credit hours will be admitted with a cumulative grade point average of 2.00 or higher on a 4.0 scale from the last school attended. Official transcripts of all coursework completed at each institution must be submitted. Remedial and some technical courses in which grades of “D” or “F” were earned will not be accepted. A student on academic probation or suspension from another institution is not in good academic standing and is not eligible for admission. Transfer students must satisfy all Prairie View A&M University requirements for graduation. All courses and grades transferred from other colleges and/or universities are recorded as received on the student’s academic record at Prairie View A&M University. Changes in the evaluation of transfer credit will not be permitted after one (1) year from the student’s initial evaluation at Prairie View A&M University. Grades earned at other institutions may not be used to remove a grade point deficiency acquired in residence at Prairie View A&M University.

Students wishing to transfer must submit the following items to the Office of Undergraduate Admissions:

1. Completed ApplyTexas application for admission.
2. The $40.00 non-refundable application processing fee which is due for each semester an applicant applies.
3. Official college/university transcript(s) from all institutions attended. Faxed, emailed or scanned transcripts will not be accepted.

4. If applicable, a written request to use the Academic Fresh Start Program, prior to admission.

If a student has successfully completed the 42-semester credit hour core mandated by the state of Texas, the student will have fulfilled the core curriculum requirements for Prairie View A&M University. A student who has not completed the core curriculum elsewhere will be required to complete the University core. A student must meet special program requirements in addition to general core curriculum requirements.

**International Student Information**

All International students must comply with INS rules and regulations. Undergraduate international students must complete the application and pay the non-refundable $50.00 application processing fee in U.S. currency. All International students must submit the following in addition to the above listed items:

1. Evidence of ability to Finance Education — Affidavit of financial support as well as certification of ability to finance study while attending Prairie View A&M University. No student should depend upon receiving an out-of-state fee waiver. Applications for such waivers must be made as part of the competitive scholarship process and is separate from the admissions process.

2. Evidence of ability to speak, write, and comprehend written and oral English language. All students must present a score of 500 on the Test of English as a Foreign Language (TOEFL) administered by the Educational Testing Service in Princeton, NJ as a part of the application process for admission to the university. Any student who graduated from a secondary education institution in the United States or who earned a score of 18 on the English Section of the ACT or a 400 on the Verbal component of the SAT Reasoning Test exempt from the TOEFL.

3. Confirmation of Immigration Status International students seeking I-20AB (Certification of Eligibility for Nonimmigrant [F-1] Student Status) must secure certification forms in person. If the form is not picked up in person, it will be forwarded by U.S. mail only.

4. Evaluation of foreign transcripts. Applicants must submit official transcripts for all high school and college work completed up to the time of expected enrollment. An evaluation of all foreign college transcripts must be completed by: Educational Credential Evaluators, Inc., P.O. Box 514070, Milwaukee, WI 53203-3470, (414) 289-3400, Span Tran Educational Services, P.O. Box 7211 Regency Square Blvd. Suite #205, Houston, Texas 77036, (713) 266-8805 or World Education Services (www.wes.org), Bowling Green Station, P. O. Box 5087, New York, NY 10274-5087, (212) 966-6311

All international students admitted to the University must first report to the Immigration Services Coordinator, Harrington Science Building, Room 107D and present all immigration documents for inspection and entry into the record. All immunization records are to be presented directly to the Owens-Franklin Health Center by the student.

All items on the application must be fully answered. All communications regarding admission to the University should be sent to: Office of Undergraduate Admissions, Prairie View A&M University, P.O. Box 519, Mail Stop 1009, Prairie View, Texas 77446.

**New Term**

Students who do not enroll for the semester, for which they are accepted, must complete a new application and pay the appropriate application fee for the new semester in which they intend to enroll. Official documents received for a previous term may be added to their new file provided the documents were received within the prior twelve months. This must be done prior to the listed application processing deadlines in this chart.

<table>
<thead>
<tr>
<th>Application Area</th>
<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Admissions Priority Dates</td>
<td>April 1</td>
<td>June 1</td>
<td>November 1</td>
</tr>
<tr>
<td>International Admissions</td>
<td>March 1</td>
<td>June 1</td>
<td>October 1</td>
</tr>
<tr>
<td>University Village (Housing)</td>
<td>NA</td>
<td>July 1</td>
<td>December 1</td>
</tr>
<tr>
<td>Upperclassman</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Aid</td>
<td>March 1</td>
<td>March 1</td>
<td>November 1</td>
</tr>
<tr>
<td>Freshman Scholarship</td>
<td>NA</td>
<td>March 1</td>
<td>NA</td>
</tr>
<tr>
<td>Transfer Scholarship</td>
<td>NA</td>
<td>June 1</td>
<td>NA</td>
</tr>
<tr>
<td>University College (Housing)</td>
<td>NA</td>
<td>July 1</td>
<td>December 1</td>
</tr>
</tbody>
</table>

Freshman

1 Assignments are on a first-come, first-serve basis and are not guaranteed until the signing of the lease by all parties.

All materials required to complete the undergraduate admissions application process are due in the Office of Undergraduate Admissions according to the schedule listed above.

**Admission Appeal Procedure**

A student who is denied admission may appeal their admissions decision in writing to the following: Appeals@pvamu.edu.
Special Admissions

Concurrent Enrollment for High School Students

The Concurrent Admission Program is designed to provide a university-supervised program offering college credit to outstanding high school students. Students must meet the following requirements to be admitted to the program:

1. Complete the eleventh grade by the date of expected enrollment in college classes.
2. Cumulative high school grade point average of 2.50 on a 4.0 scale by the end of the first semester of the junior year.
3. ACT composite score of 17 or an SAT Reasoning Test-I total score of 820 (Combined Critical Reading/Verbal & Math) or more.
4. Written permission from parent(s) or legal guardian(s).
5. Letter of recommendation from the high school counselor.
6. Complete all TSIA sections satisfactorily or have obtained a TSIA exemption prior to course registration.

A permanent college record is established once a student has completed a full term and is enrolled. The University will release the banked college credit(s) when an official transcript identifies successful completion of the high school graduation requirements. A maximum of two academic courses may be taken during the Fall, Spring or Summer semester. Courses a student may take include English, History, Mathematics, Political Science (Government), or other’s approved by the dean of the school or college where the student is enrolled.

Home Schooled

Students who graduate from high schools not accredited by the Texas Education Agency or who are home schooled may be considered if they have a 710 SAT(Verbal & Math) or 800 (New SAT - Total Score, or an ACT composite 15 or above and a 2.75 GPA on a 4.0 scale.

Dual Credit Programs

High-achieving seniors from local schools are offered the opportunity to enroll in selected collegiate level classes to earn credit. These banked college credits will not be issued until the student has graduated from high school and met the admission requirements. Students with banked college credit must request the official college transcripts to be sent to Office of Undergraduate Admissions upon high school graduation.

Former Students

Students who have previously attended Prairie View A&M University and do not enroll for courses during one or more semesters, but who wish to return, must submit an Former student application for admission and pay an application processing fee. If a student has attended any other institution while away from Prairie View A&M University, the student must submit all official transcripts. The student will be classified as a Former student. Transfer credits will be evaluated and applied as appropriate.

Transient Students

A transient student is one who is currently enrolled in another college or university, is in good standing, and desires admission to Prairie View A&M University for a limited period, usually one semester or summer term. Admission as a transient student is determined after the completed application has been reviewed and approved and the application processing fee has been paid.

Graduate Studies

The Prairie View A&M University Office of Graduate Studies is an administrative and educational support unit within the organizational jurisdiction of the Office of Academic Affairs. The mission of the unit is to provide administrative coordination for graduate studies through joint supervision of graduate program planning, delivery, and evaluation within a rigorous, intellectually challenging, and stimulating environment.

Prairie View A&M University was authorized to establish a Division of Graduate Studies in 1937, Prairie View A&M University has sustained its dedication to excellence in teaching, research, and service through commitment to advanced educational offerings which include multiple masters, doctoral, and certification programs. The Office of Graduate Studies provides the infrastructure for advanced study by providing opportunities for qualified students seeking graduate education and/or degrees. Comprehensive programs are offered under the joint supervision of the Office of Graduate Studies and the various colleges and schools. A strong partnership has been developed to assist students in realizing their educational goals.

The Office of Graduate Studies is the primary source of information about study for an advanced degree. Similarly, the Graduate Catalog is the official sourcebook to graduate programs at the University. General inquiries about graduate study should be directed to the Office of Graduate Studies. Specific questions regarding a major program should be directed to the college or school offering the program. Graduate students are held fully responsible for understanding and adhering to all rules policies and procedures established by the Office of Graduate Studies and the colleges and schools in which programs of study will be undertaken. Programs, regulations, and course offerings listed herein are subject to modification and/or deletion at any time by action of appropriate University authorities.
Graduate Studies

Colleges and Schools with Graduate Programs

- College of Agriculture and Human Sciences
- School of Architecture
- Marvin D. and June Samuel Brailsford College of Arts and Sciences
- College of Business
- Whitlowe R. Green College of Education
- Roy G. Perry College of Engineering
- College of Nursing
- College of Juvenile Justice and Psychology

Graduate degree programs leading to the Master of Arts, the Master of Science, the Master of Business Administration, the Master of Education degrees are offered. Courses are offered leading to Professional Certification and Certificate Endorsements. The Doctor of Philosophy degree program is offered in Juvenile Justice, Clinical Adolescent Psychology, Electrical Engineering and Educational Leadership. The Doctorate of Nursing Practice (DNP) is offered in Nursing.

Prairie View A&M University offers the majority of its graduate degree programs on the main campus at Prairie View. However, it also offers selected degree programs in education, business, engineering and nursing at distance sites primarily in the Houston area. Off-campus sites are located at the Prairie View A&M University Northwest Center and the campus of the College of Nursing in downtown Houston.

Second Master's Degree

Persons holding a previously earned master’s degree from Prairie View A&M University may pursue an additional master’s degree at Prairie View A&M University only with the specific approval of the Dean of Graduate Studies. All requests for a second master’s degree from Prairie View A&M University must be approved by the Graduate Dean before a student can be admitted to a program. Such approval will be given only when the following conditions are judged to have been met:

1. A complete admissions application packet for the second master’s degree and application evaluation charge submitted to the Office of Graduate Studies;
2. The proposed second master’s degree must be in a different major field of study than the previous degree;
3. A degree plan submitted for the Graduate Dean’s approval;
4. Courses counted toward a previously earned master’s degree may not be applied to the second master’s degree unless they constitute specific course requirements for the major concentration in the second master’s degree program. In such cases, no more than 12 semester hours of such courses may be counted toward the second degree and must be included in the degree plan for the second master’s degree. Only courses with a grade of “B” or better may be counted. (Courses must be less than six (6) years old at the time the degree is awarded. No more than six (6) semester hours may be transferred from another institution. Transferred courses must meet the established time limit).

Degrees beyond the second master’s degree are considered “stand alone” degrees. Hours from previous degrees will not be accepted toward “stand alone” degrees.

Application Procedures

A completed application for admission is required and must be received by the Office of Graduate Studies by the following deadlines:

**Domestic Students**
May 1 for the Fall Semester
October 1 for the Spring Semester
March 1 for the Summer Term

**International Students**
May 1 for the Fall Semester
September 1 for the Spring Semester
February 1 for Summer Term

It is the applicant’s responsibility to ensure that the required admission documents are received by the Office of Graduate Studies on or before the application deadline. An applicant whose admission credentials are received after a stated deadline date should contact the Office of Graduate Studies to request an evaluation for admission for the next enrollment period.

Even though the applicant may meet the general requirements for admission to Graduate Studies, he/she must also meet the admission requirements of specific programs in this catalog. Admission to a department/program is not guaranteed until the applicant receives official notification by the Office of Graduate Studies. The student may not enroll in any graduate courses until this official notification is received. Failure to adhere to this policy will nullify any graduate level coursework undertaken by the student.
Requirements for the admission process are outlined below:

1. A completed online application for admission to Graduate Studies (www.applytexas.org) and payment of a $50 non-refundable application evaluation charge.
2. A bachelor’s degree from an accredited college or university or, for most doctoral programs, a master’s degree from an accredited college or university.
3. An official transcript from the registrar of each regionally accredited college or university previously attended is required. For most doctoral programs, a master’s degree from a regionally accredited college or university is required.
4. A bachelor's degree documenting a minimum undergraduate cumulative Grade Point Average of 2.75 on a 4.00 grading scale for regular degree status.
5. A bachelor's degree documenting a minimum 2.50 Grade Point Average on a 4.00 grading scale that represents at minimum, the last 60 hours of undergraduate credit for provisional or non-degree graduate student status.
6. A minimum 2.45 Grade Point Average on a 4.00 grading scale, but not less than 2.75 for the last 60 semester hours of undergraduate credits may be used for provisional graduate student status.
7. Three letters of recommendation from persons in the field of the applicant's academic major or area of concentration.
8. Official scores on the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT) for Business Programs ONLY must be on file within the first semester of enrollment and may not be more than 10 years old at the time of enrollment. Official scores on the Graduate Management Admissions Test (GMAT) must be on file within the first 12 SCH and may not be more than 5 years old at the time of enrollment.

Information regarding the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT) may be obtained from the Graduate School or by contacting the appropriate testing service below:

**Graduate Record Examinations**

Educational Testing Service  
P. O. Box 6000  
Princeton, NJ 08541-6000  
Telephone: 866-473-4373 (Princeton, NJ)  
609-771-7670 (outside U.S. and Canada)  
Website: www.ets.org/gre

**Graduate Management Admission Test**

Graduate Management Admission Council  
1600 Tysons Blvd., Suite 1400  
McLean, VA 22102  
Telephone: 866-505-6559 (toll free within U.S. and Canada only)  
703-245-4222  
Website: www.gmac.com or www.mba.com

1. Recommendation for admission is transmitted by the department head and dean of the school or college offering the graduate program to which the student is seeking admission to Graduate Studies.
2. Formal acceptance for graduate study and notification from the Office of Graduate Studies.

**Types of Admission to Graduate Studies**

The Office for Graduate Studies receives the application packet and engages in the initial review of the packet for completeness. Notification is provided the application of packet receipt and of the completeness or lack of completeness of the packet. The application packet is forwarded to the identified major program of study.

The department head and dean of the school or college offering the graduate program to which the student is seeking admission provides a recommendation regarding graduate study from the evaluation for admission to the Office for Graduate Studies. The Graduate Studies Office provides the official notification of determination to the student.

Students can enroll in Prairie View A&M University’s graduate programs by meeting one of three regular admissions standards or through special standards described below.

**Graduate Work By a Senior**

A University senior who is within 12 semester hours of completing the requirements for an undergraduate degree may, upon being recommended by the department head and the dean of the school or college, register for up to six semester hours of graduate courses while completing undergraduate degree requirements. Applicants must meet GPA requirement for Acceptance to Graduate Studies. The combined load of the graduate and the
undergraduate courses must not exceed 18 semester hours. Graduate courses used to meet undergraduate requirements may not be used to meet graduate requirements.

**Acceptance for Graduate Study**

A student admitted to Graduate Study has a bachelor’s degree from an accredited college or university with a GPA of at least 2.75 (masters) or a graduate GPA of at least 3.00 (doctorate) on a 4.00 scale. All required elements for acceptance to graduate study as outlined by the Office of Graduate Studies and within an identified program have been met.

Several Departments maintain additional specific requirements for admission to graduate study in terms of courses taken, grades in relevant courses, documentation of discipline specific experiences, additional letters of recommendation, and/or an application essay. ALL required elements in these categories have also been met.

**Provisional Acceptance for Graduate Study**

An applicant may be admitted as a provisional student if they have a bachelor’s degree with a GPA between 2.50 and 2.74 and/or official GRE/GMAT test scores have not received, but evidence exists that applicant will meet requirements for graduate acceptance once missing documentation is received.

A student admitted to this category may enroll in a maximum of 12 semester credit hours of graduate courses. In order to continue, the student must have achieved a grade point average of 3.0 and be recommended by the department and college for graduate study acceptance.

Official scores on the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT) must be on file prior to completion of the first semester of enrollment and may not be more than 10 years old at the time of initial enrollment. Failure to submit the scores will result in an academic hold until the scores are received.

Graduate Study Provisional Acceptance status will not be removed until the required official test scores have been received. Students receiving provisional acceptance must complete 12 semester credit hours with GPA of 3.0 or better before they can be admitted as “graduate study acceptance” status.

**Special Graduate Acceptance**

Students that do not meet minimum GPA requirements for admission as Graduate Study Acceptance or Graduate Study Provisional are considered Graduate Study Special Acceptance. These students must have been highly recommended based upon evidence of scholarly potential. Students in this category may enroll in no more than 12 graduate semester credits covering a maximum of two consecutive terms. A student in this category may be admitted to Graduate Study Acceptance if a GPA of 3.0 is maintained during this period and if the student is recommended by the department head and dean of the school or college.

Students who are removed from Graduate Study Acceptance or Graduate Study Provisional Acceptance because of a low GPA may become Graduate Study Special Acceptance students. Students in this category may petition for re-admission as Graduate Study Acceptance status after earning a 3.0 GPA. A petition will be allowed only once within a period of two years (24 months).

Students whose academic records are not received before the deadline period relating to the time in which the student wishes to be admitted are automatically designated as special students. If a student’s records are received within a period of eight weeks after enrollment in courses, his/her record will be evaluated. The student will then be notified of his or her NEW admission status. If the student’s records are not received prior to the end of the grading period, no credit will be awarded for the course(s) taken.

**Post-Baccalaureate Graduate Acceptance (Non-Degree Seeking)**

Students who hold bachelor’s degrees with a minimum GPA of 2.50 and who wish to take graduate course or seek graduate-level certification without qualifying for a degree can be admitted as a Non-Degree Seeking student. Students must meet all course prerequisites in order to be admitted to advanced courses. Elevation to degree status must be recommended by the appropriate school or college dean within completion of the first 12 semester credit hours if the student attained and maintained 2.75 GPA and is approved by the Dean for Graduate Studies.

**Admission to an Accelerated Bachelor’s-to-Master’s Program**

The Bachelors-to-doctorate degree program, offered by select programs, is designed to ensure that the program results in student learning outcomes aligned with the typical doctoral program in exit outcomes. A program is structured to admit students with either the bachelor’s and/or the master’s degrees. These programs are designed to also help reduced the challenges that some MS degree holders possess because they did not have the foundational skills in research and statistics and are unable to move into dissertation research. The BS to PhD program will respond to these needs by providing the needed structure as part of the doctoral program.

Students will also be admitted at the MS level, but their curriculum must be reviewed to make sure that they have taken the courses needed to be in the doctoral program and have had the foundational support that they need to complete the program. Students will be required to complete additional courses with a focus on the lifespan rather than on children and adolescents and complete an empirical thesis.
A Master’s program in Clinical Adolescent is not offered, but the student will receive a master’s within this process when they matriculate through the entire program. Students start seeing clients during the second (2nd) year and the clinic would be the place for receiving training. As the student gains supervised experience within the academic program, opportunities will be available to receive training in other settings. The clinic provides basic clinical skills and then the student can build relationships with other facilities.

Transient Graduate Acceptance

A student who has a bachelor’s degree with a minimum GPA of 2.50 and that wants to take graduate courses without qualifying for a degree or seek graduate-level certification can be admitted as a Transient (Non-Degree Seeking) student. Transient status is extended for ONE TERM ONLY and requires a letter of good standing and official transcript from the current institution. Special permission must be given by the Graduate Studies Dean if a second term of Transient status is sought. After two terms in Transient status, the student must submit a complete admissions application packet for consideration as a degree-seeking student.

Concurrent Study for Two Different Degrees

A student pursing a graduate degree program at Prairie View A&M University may not simultaneously enroll and complete course work for the purpose of meeting requirements for any other degree offered by this institution. However, a graduate student within three - six semester hours of completing the first graduate degree requirements may seek approval to enroll in up to six semester hours of graduate courses applicable to the second degree. Courses completed in this category must be applicable to the second degree ONLY. Total enrollment for the term may not exceed (9) semester credit hours.

The first degree must be completed in its entirety before additional work may be taken for the purpose of meeting requirements for the second degree. The format and requirements for a request to pursue two different graduate degrees concurrently may be obtained from the Office of Graduate Studies.

Second Master’s Degree

Students that wish to pursue a second masters degree should MUST meet all Graduate Study Acceptance criteria as defined by the degree program and obtain permission from the Graduate Studies Dean to be able to pursue a second master’s degree in a different field of study.

Graduate Study Acceptance from Non-Accredited/Non-Equivalent Institutions

A student who is a graduate of a non-accredited institution whose degree is not considered equivalent to a baccalaureate degree or a master’s degree at Prairie View A&M University may not be admitted directly post-baccalaureate or doctoral status. Instead, he/she may be considered for admission as an undergraduate student or master’s candidate. Upon completion of the baccalaureate degree, the student may then apply and be considered for admission to the desired degree program.

Doctoral Graduate Study Acceptance

A completed application for admission is required and must be received by the Office for Graduate Studies by the identified deadline for the program for which admission is sought. Assessment of doctoral applicants involves a multi-step process. It is the applicant’s responsibility to ensure that the required admission documents are received by the Office for Graduate Studies on or before the application deadline.

Academic Programs and Degree Plans

A wide variety of programs leading to degrees and certificates are offered by the University to serve a variety of student needs. Students needing assistance in selecting an appropriate program for their career goals are advised to meet with a advisor.

College of Agriculture and Human Sciences

The College of Agriculture and Human Sciences shall serve to reinforce and strengthen the land grant mission of the University by implementing programs in the agricultural, food, human and natural resource sciences that:
1. Highlight learning, discovery and engagement;
2. Focus on matters related to the interactive roles of individuals, families and communities within social, economic, environmental, and global systems; and
3. Anchor these actions on sound public policy, the best available science, and efficient management.

Specifically, the programs in the College shall provide:

1. Instructional activities in Agriculture, Dietetics and Human Sciences which provide learning opportunities that prepare students to respond effectively to complex social issues relating to the food, agricultural, human and natural resource sciences through the use of innovative strategies in the delivery of classroom, laboratory, and experiential learning activities that prepare graduates for discovery and engagement in a diverse and global labor force and for advanced study in graduate and/or professional schools. These activities are conducted within the structure of the Department of Agriculture, Nutrition and Human Ecology.
2. Research activities to conduct basic and applied research in the agricultural, food, human and natural resource sciences that generate scientific information and technological developments that respond to the needs of stakeholders. These activities are conducted primarily within the structure of the Cooperative Agricultural Research Center.
3. Extension activities to deliver research based information and informal educational opportunities focused on identified issues and needs of Texans of diverse ethnic and socioeconomic backgrounds giving emphasis to individuals who are historically unserved and underserved. These activities are conducted primarily within the structure of the Cooperative Extension Program.
4. International activities that establish sustainable linkages and collaborative relationships of mutual interest with global partners and sponsors to develop human capital and natural and institutional resources through implementation of the land grant mission functions of teaching/learning, research/discovery, and service/engagement in the agricultural, food, human and natural resource sciences. These activities are conducted primarily within the structure of the Institute for International Agribusiness Studies.

Comprehensively, through involvement in professional and scientific activities, the College shall enhance the food, agricultural, and human sciences and strive to improve the quality of life for the residents of Texas, the nation and the world.

### Instructional Organization

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
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<tbody>
<tr>
<td>Agriculture</td>
<td>BS</td>
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<tr>
<td>Human Nutrition and Food</td>
<td>BS</td>
</tr>
<tr>
<td>Human Sciences</td>
<td>MS</td>
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</table>

### Academic Standards and Progress

Students enrolled in a degree program in the College of Agriculture and Human Sciences are required to fulfill the university requirements for successful academic progress toward graduation. In addition, students are expected to:

- Earn an overall grade point average of 2.50 in courses required for the degree beyond the University core, but which are not offered by programs within the College.
- Students who wish to transfer from other colleges and universities to the College must have a minimum grade point average of 2.50 in transfer credits accepted by the respective program for unconditional admission, in addition to satisfying the general requirements specified in this catalog.
- Students within the university who wish to transfer to the College must have a minimum grade point average of 2.25 in transfer credits accepted by the respective Program for unconditional admission.

### Honor Societies and Clubs

Student organizations in the College are linked to national professional organizations and serve as vehicles to assist each student with professional development.

### All Majors

Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) is a national society that promotes and fosters the involvement of minorities in agriculture and related sciences. Chapters established at various colleges and universities are designed to develop a partnership between minority students in agriculture and natural resources and professionals from academic institutions, government agencies and industry by promoting professional development, networking, and career placement in a nurturing environment. Membership is open to people of all racial and ethnic backgrounds who support the objective of full ethnic group participation and achievement in agricultural and related science careers.

### Agriculture

The PVAMU Livestock Show Team educates students on different aspects of livestock showing and handling. It also promotes animal husbandry skills. Students work hands on with some of Prairie View’s livestock and participate in showing them at Fort Worth, San Antonio and Houston Livestock Show
and Rodeo. There also are multiple seminars throughout the semester for both the students and the public to further the knowledge of overall livestock management. The club collaborates with the Prairie View community and on campus.

Pre-Veterinary Medicine Club is an organization that prepares, guides, and helps students gain acceptance into veterinary schools. The Club aims to give students hands on experience, as well as providing them basic knowledge of Pre-Vet curriculum.

The Rodeo Club is affiliated with the National Intercollegiate Rodeo Association (NIRA). The rodeo team participates in rodeos sponsored by the Southern Region of the NIRA. At least 20 rodeos are sponsored by the Southern Region during the academic school year.

Family and Community Services

The Kappa Beta Epsilon Chapter of Kappa Omicron Nu, National Home Economics Honor Society, was installed on the campus in 1963 as the Beta Epsilon Chapter of Kappa Omicron Phi. Kappa Omicron Nu was formed during 1989-90 through the merger of two National Home Economics Honor Societies, Omicron Nu and Kappa Omicron Phi. Students majoring or minoring in programs offered by the College are eligible for membership upon satisfying specific membership criteria as outlined by the constitution of the organization.

The programs also encourage student participation in specialized student member affiliates of professional organizations supported by the major area. Students interested in gaining membership in these specialty organizations should consult with the major advisor.

Nutrition

The Student Association of Nutrition and Dietetics (SAND) gives the student an opportunity to explore career opportunities in the field of nutrition and dietetics. Students interact with peers and faculty outside the classroom and have the opportunity to be actively involved with other local, state and national chapters, as well as, the national organization.

Purpose and Goals

The College of Agriculture and Human Sciences shall serve to reinforce and strengthen the land grant mission of the University by implementing programs in the agricultural, food, human and natural resource sciences that 1) highlight learning, discovery and engagement; 2) focus on matters related to the interactive roles of individuals, families and communities within social, economic, environmental, and global systems; and 3) anchor these actions on sound public policy, the best available science, and efficient management.

Specifically, the programs in the College shall provide:

1. Instructional activities in Agriculture, Dietetics, and in Human Sciences which provide learning opportunities that prepare students to respond effectively to complex social issues relating to the food, agricultural, human and natural resource sciences through the use of innovative strategies in the delivery of classroom, laboratory, and experiential learning activities that prepare graduates for discovery and engagement in a diverse and global labor force and for advanced study in graduate and/or professional schools. These activities are conducted within the structure of the Department of Agriculture, Nutrition and Human Ecology.

2. Research activities to conduct basic and applied research in the agricultural, food, human and natural resource sciences that generate scientific information and technological developments that respond to the needs of stakeholders. These activities are conducted primarily within the structure of the Cooperative Agricultural Research Center.

3. Extension activities to deliver research based information and informal educational opportunities focused on identified issues and needs of Texans of diverse ethnic and socioeconomic backgrounds giving emphasis to individuals that are historically unserved and underserved. These activities are conducted primarily within the structure of the Cooperative Extension Program.

4. International activities that establish sustainable linkages and collaborative relationships of mutual interest with global partners and sponsors to develop human capital and natural and institutional resources through implementation of the land grant mission functions of teaching/learning, research/discovery, and service/engagement in the agricultural, food, human and natural resource sciences. These activities are conducted primarily within the structure of study abroad opportunities.

The graduate programs emphasize the preparation of students for teaching, research and public service in colleges and universities, in social and public service agencies, and/or in managerial positions in business, industry or government. The curriculum offers opportunities for students to tailor the program to meet individual needs and prepares graduates to work with clientele in a professional capacity as agents of change. The specific goals of the program provide opportunities for enhanced professional competency development and the development of an academic and stylistic model for additional graduate study in a variety of academic specialties.

Instructional Organization

The College of Agriculture and Human Sciences offers the following graduate degree program:
Graduate courses offered by the Department may be utilized to support graduate majors in Counseling, Sociology, Psychology, Criminal Justice, Education and related disciplines. Students seeking specialization in these areas should consult the Advisor in the major field of study for appropriate application of coursework.

**Admission Requirements**

Students desiring to major in graduate programs in the College of Agriculture and Human Sciences must:

1. Present undergraduate subject matter credits consistent with or closely aligned with the academic specialties offered from an accredited college of university.
2. Meet all requirements as outlined by the graduate school for a degree status student or the minimum criteria for provisional graduate status. Provisional status must be removed within the first twelve months of initial enrollment.

**Department of Agriculture, Nutrition and Human Ecology**

**Purpose and Goal**

The Agriculture program prepares the graduate to perform as an entry level professional in a broad range of areas including food, agricultural, and natural resource marketing, production, distribution and processing. The Agriculture degree program is designed to provide a generalist emphasis that serves as the foundation for diverse careers and as a springboard for advanced study in agriculture and natural resource sciences and related fields. Concentrations are available in Agribusiness, Plant and Soil Sciences, and Animal and Food Sciences. These concentrations guide the student in defining an area for future specialization that can be attained at the graduate level and through professional practice. The emphasis in Animal and Food Sciences also may serve as pre-professional curricula for Veterinary Medicine. Additional courses that help the student qualify for professional study in veterinary medicine should be selected in consultation with an advisor.

Students enrolled in Agriculture are afforded opportunities to gain hands-on experience through laboratory, field exercises, cooperative education and summer job assignments. Students completing the program are able to demonstrate varied skills in many areas. Guidance and support are provided to foster personal development and leadership skills essential for effective professional practice in the chosen field of practice.

The Human Nutrition and Food program is designed to provide quality nutrition education to students who wish to pursue careers in the field of nutrition. There are three concentrations with defined emphasis on Health and Wellness, Food Systems Management and Registered Dietitian. The Health and Wellness concentration prepares students for careers in nursing or the adult care environment, hospitals, health inspections and fitness. Courses in this concentration are designed to help students understand and implement health promotion and disease prevention, and promote healthy lifestyles through behavioral changes. The Food Service Management concentration prepares students for careers as dietary managers who will provide leadership in the delivery of food service management. It is dedicated to studying the operational issues that lead to profitability in a food service operation. Students examine the food service industry form the perspective of management. Student learn about food preparation and leadership knowledge and skills that will help to further their careers in the hospitality industry. The Registered Dietitian concentration provides an avenue toward the eligibility of students to become registered dietitians.

The Human Nutrition and Food program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606-6695; Telephone: 800-877-1600 ext. 5400. Website http://www.eatright.org. Graduates in Human Sciences and Dietetics are positioned to provide services to individuals, families and their communities and to help effect an optimum balance between families and their environments. The graduate has the expertise to focus on family-community interactions, family problems and needs, the identification and efficient utilization of resources available to the individual and the family as consumer, and the components for optimal development of persons in our society.

**Bachelor of Science in Agriculture Degree Program**

The degree program in Agriculture is a generalist program that provides a broad based study of the food, agricultural and natural resource sciences. The Concentration options allow the student to gain depth in a specialty area and build the foundation for graduate study in the field. Each student must select one of the Concentration options in order to complete requirements for the degree, B.S. in Agriculture.

**Degree Program Requirements**

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<td>Marketing Agricultural Products</td>
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<td>AGE C 3223</td>
<td>Agricultural Financial Analysis</td>
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<tr>
<td>AGE G 1413</td>
<td>Fundamentals of Agricultural Engineering</td>
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<tr>
<td>AGHR 1313</td>
<td>Agricultural Science and Technology</td>
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<td>AGHR 4413</td>
<td>Special Topics</td>
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<td>AGRO 1703</td>
<td>Crop Science</td>
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<td>AGRO 2603</td>
<td>Environmental Soil Science</td>
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<td>AGRO 2633</td>
<td>Forage and Pasture Management</td>
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<td>ANSC 1513</td>
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<td>ANSC 2513</td>
<td>Animal Production and Marketing</td>
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<td>ANSC 2543</td>
<td>Diseases and Sanitation</td>
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<tr>
<td><strong>Total Hours</strong></td>
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**Concentration Options**

**Agribusiness**
- AGEC 2223  Food Distribution Systems  3
- AGEC 3213  Agricultural Policy  3
- AGEC 4223  Principles of Agri-business Management  3
- AGEC 4233  Land and Resource Economics  3
- AGEC 4253  Agricultural Prices  3
- ACCT 2113  Financial Accounting  3
- ECON 4213  Intermediate Microeconomic Analysis  3
- MATH 2003  Elementary Statistics  3
- MGMT 1013  Introduction to Business  3
- MRKT 3103  Principles of Marketing  3
- **Unrestricted Electives**  12
- **Total Hours**  42

**Plant and Soil Sciences**<sup>1</sup>
- AGRO 2613  Natural Resource Conservation Management  3
- AGRO 2733  Principles of Crop Production  3
- AGRO 3623  Soil Morphology and Classification  3
- AGRO 3633  Soil Fertility and Fertilizers  3
- AGRO 3643  Soil and Water Management  3
- AGRO 3713  Gen Entomology  3
- AGRO 3733  Plant Pathology  3
- AGRO 4613  Soil Microbiology  3
- AGRO 4623  Environmental Science  3
- GEOG 2113  Introduction to Geographic Information System  3
- **Unrestricted Electives**  12
- **Total Hours**  42

<sup>1</sup> Consult an advisor. Additional semester credit hours may be required for specialized job requirements. Examples include: BIOL 1034; MATH 1123.

**Animal and Food Sciences**
- ANSC 2523  Poultry Science  3
- ANSC 2533  Dairy Science  3
- ANSC 2552  Poultry Tech & Marketing  2
- ANSC 3503  Animal Nutrition  3
- ANSC 3514  Anatomy and Physiology  4
- ANSC 3523  Meat Science  3
- ANSC 4533  Breeding/Genetics  3
- FDSC 3583  Food Quality Assurance and Sanitation  3
- FDSC 3593  Food Bacteriology  3
Bachelor of Science in Dietetics with a major in Human Nutrition and Food

The BS degree in Dietetics prepares students for careers in varying fields in hospitals and wellness, food service & management, agriculture, and other related fields. Students can concentrate in one of three areas in the department, Health and Wellness, Food Service Management and Registered Dietitian (RD). The RD concentration, is designed to provide quality dietetic education that enhances student development and provides an avenue toward the eligibility of students to become registered dietitians. The Didactic Program in Dietetics at Prairie View A&M University is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606-6695; Telephone 800-877-1600 ext. 5400. Website http://www.eatright.org.

Verification Letter

Students must successfully complete the Registered Dietitian concentration of the BS in Dietetics degree with a major in Human Nutrition and Food to qualify to receive a verification statement. In addition, students must graduate with at least a 3.0 GPA in major and Support Area Requirements with a grade of “C” or better in each course. In instances where courses are substituted or completed as independent study in the department, the student is required to take and successfully complete an examination covering the relevant knowledge and competencies in those areas. If all of the above criteria are met, the program will issue a verification statement to the student. Verification Statements are issued upon certification of completion of all degree requirements by the registrar’s office. Verification statements will only be issued upon completion of the Registered Dietitian (RD) concentration.

Degree Program Requirements

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<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
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</thead>
<tbody>
<tr>
<td>Major Requirements</td>
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</tr>
<tr>
<td>HUNF 1343 Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 1351 Human Sciences Perspectives</td>
<td>1</td>
</tr>
<tr>
<td>HUNF 2533 Intermediate Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 2633 Food Service Systems</td>
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</tr>
<tr>
<td>HUNF 2653 Food Principles and Meal Management</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 2663 Food Systems Management</td>
<td>3</td>
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<tr>
<td>HUNF 3613 Nutrition Throughout the Lifecycle</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 3633 Advanced Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 3653 Nutrition and Disease</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 4303 Human Nutrition and Food Practicum</td>
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<tr>
<td>HUNF 4413 Special Topics in Nutrition</td>
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<tr>
<td>or HUNF 4473 Nutrition Counseling</td>
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<tr>
<td>HUNF 4603 Physiochemical Aspects of Food</td>
<td>3</td>
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<tr>
<td>HUNF 4613 Research in Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 4663 Medical Nutrition Therapy I</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 4693 Community Nutrition and Health</td>
<td>3</td>
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<tr>
<td>Support Area Requirements</td>
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<tr>
<td>BIOL 1073 General Microbiology</td>
<td>3</td>
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<tr>
<td>BIOL 1054 Anatomy and Physiology I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1011 Inorganic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1051 General Inorganic Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>COMM 1003 Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2003 Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1013 Introduction to Business</td>
<td>3</td>
</tr>
</tbody>
</table>
Concentration: Select one from the options below

Total Hours

Registered Dietitian Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNF 3623</td>
<td>Food Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 4673</td>
<td>Medical Nutrition Therapy II</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 3323</td>
<td>Program Planning II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1043</td>
<td>General Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2033</td>
<td>General Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2032</td>
<td>General Organic Chemistry Laboratory I</td>
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<tr>
<td>CHEM 4033</td>
<td>Biochemistry</td>
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</tbody>
</table>

Total Hours 21

Wellness Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNF 4673</td>
<td>Medical Nutrition Therapy II</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3043</td>
<td>Consumer Health</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1064</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>HLTH 3093</td>
<td>Drugs and Health</td>
<td>3</td>
</tr>
<tr>
<td>KINE 1082</td>
<td>Fundamentals of Basic Movement</td>
<td>2</td>
</tr>
<tr>
<td>KINE 3023</td>
<td>Applied Anatomy and Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KINE 4042</td>
<td>Athletic Injuries and CPR</td>
<td>2</td>
</tr>
<tr>
<td>KINE elective</td>
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</tr>
</tbody>
</table>

Total Hours 21

Food Service Management Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSC 3583</td>
<td>Food Quality Assurance and Sanitation</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 3593</td>
<td>Food Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 3623</td>
<td>Food Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2113</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3103</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3353</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 3103</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 21

Minor Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNF 1343</td>
<td>Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 2633</td>
<td>Food Service Systems</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 2653</td>
<td>Food Principles and Meal Management</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 2663</td>
<td>Food Systems Management</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 3613</td>
<td>Nutrition Throughout the Lifecycle</td>
<td>3</td>
</tr>
<tr>
<td>HUNF 4693</td>
<td>Community Nutrition and Health</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 18

Master of Science in Human Sciences Degree Program Requirements

This program seeks to train systemically focused clinicians that are prepared to meet the complex demands of the 21st Century family in its many forms. Through both theoretical knowledge and clinical practice, the degree underscores the importance of traditionally marginalized populations and their role in therapy. Through the program, students will acquire necessary skills to work systemically with individuals, couples, and families. This systemic lens will prepare students to work with a variety of mental health issues.

Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUSC 5393</td>
<td>Family Communication</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5533</td>
<td>Family Theory and Issues</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5543</td>
<td>Theories of Child Development</td>
<td>3</td>
</tr>
</tbody>
</table>
### Electives

Select 18 semester credit hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUSC 5323</td>
<td>Marriage and Family Therapy Pre-Practicum</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5333</td>
<td>Introduction to Clinical Hypnosis</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5346</td>
<td>Marriage and Family Therapy Practicum II</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5373</td>
<td>Sex Therapy</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5383</td>
<td>Child and Adolescent Therapy</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5523</td>
<td>Marriage and Family Therapy</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5563</td>
<td>Marriage and Family Therapy Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5573</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5583</td>
<td>Mental Health and Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5593</td>
<td>Clinical Supervision</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5613</td>
<td>Victimization and Crisis Management</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5623</td>
<td>Counseling Diverse Populations</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5633</td>
<td>Clinical Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5683</td>
<td>Family Ethics and Issues</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5713</td>
<td>Group Therapy</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5723</td>
<td>Family Financial Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5733</td>
<td>Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5743</td>
<td>Addiction and Family Intervention</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5753</td>
<td>Individual and Clinical Psychotherapy</td>
<td>3</td>
</tr>
</tbody>
</table>

### Research

- HUSC 5343 Research Problems 3

### Resource

- HUSC 5693 Thesis 3
- or HUSC 5563 Marriage and Family Therapy Practicum I 3

Total Hours: 36

1 This course may be taken as an elective if the student takes HUSC 5693 Thesis as their Resource requirement.

### Post-Baccalaureate Program in Dietetics Requirements

The Post-Baccalaureate Program in Dietetics is offered for individuals accepted for matriculation in the Dietetic Internship. The following courses are required as components of the program:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUSC 5326</td>
<td>Advanced Practice in Dietetics I</td>
<td>6</td>
</tr>
<tr>
<td>HUSC 5336</td>
<td>Advanced Practice in Dietetics II</td>
<td>6</td>
</tr>
<tr>
<td>HUSC 5353</td>
<td>Dietetic Seminar I</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 5363</td>
<td>Dietetic Seminar II</td>
<td>3</td>
</tr>
</tbody>
</table>

The Dietetic Internship Program at Prairie View A&M University is accredited by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association (ADA). The address and phone number of CADE are 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6695, 1-800-877-1600 Ext. 5400. Website http://www.eatright.org.

### College of Business

#### Vision and Mission Statement

**Vision Statement:**

The Prairie View A&M University College of Business strives to be among the best regional business schools in the nation by empowering students from diverse backgrounds to reach their full potential.

**Mission Statement:**
The Prairie View A&M University College of Business provides students from diverse academic and socioeconomic backgrounds with an education that helps them become business professionals and leaders who are ethical, entrepreneurial, productive, and prepared to succeed in the global economy. The College achieves excellence through quality teaching, research, service, and engagement with the business community.

### Instructional Organization

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>BBA &amp; MS</td>
</tr>
<tr>
<td>Finance</td>
<td>BBA</td>
</tr>
<tr>
<td>General Business Administration</td>
<td>MBA</td>
</tr>
<tr>
<td>Management</td>
<td>BBA</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>BBA</td>
</tr>
<tr>
<td>Marketing</td>
<td>BBA</td>
</tr>
</tbody>
</table>

### Accreditation

All baccalaureate and the graduate degree programs are accredited by the Association to Advance Collegiate Schools of Business (AACSB) International.

### Program Learning Goals (BBA)

- **Program Goal 1:** Mastery of Content. Graduates will demonstrate an ability to integrate and use knowledge from multiple business disciplines, and will demonstrate proficiency in their major area business discipline.
- **Program Goal 2:** Ethics. Graduates will have an ethical perspective.
- **Program Goal 3:** Global Perspective. Graduates will have a global perspective.
- **Program Goal 4:** Communications. Graduates will demonstrate an ability to be effective communicators.

### Academic Standards and Progress

Following admission to the College of Business, students who remain in good standing are eligible to enroll in 3000/4000 level courses as long as they maintain a cumulative grade point average of a 2.30 or better.

Students must earn a grade of a "C" or better in all business courses presented for graduation except those courses used as unrestricted electives.

### Transfer Credit

Prairie View A&M University has formal agreements with several area community colleges for course transfer to ensure a smooth transition for students with an associate’s degree to a baccalaureate degree program. The College of Business will generally accept credit for only freshman and sophomore level courses from community colleges which may be applied to the student's respective degree plan. For additional details, contact the Department Head or Dean.

### Community/Junior College Transfers

Community/Junior college students who plan to transfer to the College of Business are advised to pursue courses recommended for the freshman/sophomore years as outlined in this section. Upper division (3000/4000 level) courses taught in the College of Business should not be taken at a community/junior college. The College has formal agreements with several area community colleges for course transfer to ensure a seamless transition to a baccalaureate degree program.

### Admission to the College of Business

First-time freshman who meet the University admissions requirements enter the College of Business as Pre-Business students. Current students changing their major to business must be in good academic standing and have a cumulative grade point average (CGPA) of a 2.30 or higher to enter the College of Business as Pre-Business students.

### Transitioning from Pre-Business to Business requires:

1. Satisfactory completion of at least 45 semester hours from the courses listed in the recommended course sequence for the freshmen/sophomore years in their respective disciplines, including the ten admissions requirement courses listed below.
2. Earned cumulative grade point average of 2.30 in all credit course work.
3. Completion of the following courses with a grade of “C” or better.
   - ENGL 1123 Freshman Composition I
   - ENGL 1133 and Freshman Composition II
Students in Good Standing

Students entering the College of Business after the fall 2010 semester must maintain a cumulative grade point average of 2.30 or higher to remain in good standing. Failure to maintain a CGPA of 2.30 or higher may result in a student being placed on probation. Pre-Business students may be dismissed from the College of Business if their cumulative grade point average (CGPA) drops below 2.00 in one semester.

Pre-Business students may be restricted from taking any 3000-level or 4000-level College of Business courses.

All students (Pre-Business and Business majors) who have entered the College of Business must maintain a cumulative grade point average (CGPA) of 2.30 or higher in order to be in good standing in the academic program. Failure to maintain a CGPA of 2.30 or higher may result in students being placed on probation or dismissed from the College of Business.

The minimum cumulative GPA requirement to receive a Bachelor of Business Administration (BBA) from the College of Business is a 2.30.

Instructional Organization

The College offers the Bachelor of Business Administration (B.B.A.) degree program with five majors or areas of specialization: Accounting, Finance, Management Information Systems, Management, and Marketing.

Honor Societies, Professional and Service Organizations

Business students are encouraged to participate in professional organizations and honor societies. These organizations provide opportunities for students to develop professional skills, e.g., team work, planning, organizing, leadership, and communication. The following organizations are open to business majors. In addition, discipline-specific professional organizations are usually open to all students at Prairie View A&M University and are discussed in the department sections of the catalog.

Beta Gamma Sigma is an International honor society in business for AACSB-accredited schools. The top 10 percent of juniors and seniors and the top 20 percent of graduate students are selected and invited to join.

The Dean’s Student Advisory Council is composed of the president and one selected representative from each College of Business professional organization. Other students may be invited by the Dean to join. The Council serves as a liaison between the Dean and business students.

Enactus (formerly Students in Free Enterprise) is a nonprofit organization that gives students the tools to learn the free enterprise system in a real working situation. Enactus challenges students on more than 800 college campuses nationwide to take what they’re learning in the classroom and use their knowledge to better their communities.

Voices of Distinction, the Prairie View A&M University chapter of Toastmasters International is offered through the College of Business. The club offers students an opportunity to improve their public speaking skills.

Probation

Student admission required GPAs (ARGPA)s and cumulative GPAs (CGPA)s will be reviewed at the conclusion of each fall and spring semester after final grades have been posted. The ARGPA is comprised of the ten admission requirement courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1123</td>
<td>Freshman Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1133</td>
<td>Freshman Composition II</td>
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</tr>
<tr>
<td>MATH 1113</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MISY 1013</td>
<td>Info &amp; Communication in the Digital Age</td>
<td>3</td>
</tr>
</tbody>
</table>
A Pre-Business student whose ARGPA is below 2.30 at the end of the fall and/or spring semester may be placed on probation and a registration hold may be placed on student’s accounts. The hold will not be removed until the student completes their probationary period obligations.

A Business student who has a CGPA below 2.30 may be placed on probation and a registration hold may be placed on the student’s account. The hold will not be removed until the student completes their probationary period obligations.

If the ARGPA (for Pre-Business students) or CGPA (for Business students) falls below a 2.30 at the conclusion of the fall or spring semester following a probationary period, the student may be dismissed from the College of Business.

Probationary Period Obligations

Pre-Business students may be subject to the following during the probationary period:

1. Students will have two consecutive semesters (not including the summer semester) to improve their ARGPA to a 2.30 or higher. In order to successfully improve their ARGPA, students may be advised to repeat some or all failed (admission requirement) courses.
2. Students may be restricted to enroll in a maximum of 15 hours (SCH).
3. If the CGPA or ARGPA of a 2.30 or higher is achieved during the two semesters following probation or at the conclusion of the probationary period, the probation will be lifted and the hold removed from the students’ accounts.

Business majors may be subject to the following during the probationary period:

1. Students will have two consecutive semesters (not including the summer semester) to improve their CGPA to a 2.30 or higher. Students may be advised to repeat some or all failed College of Business courses.
2. Students may be restricted to enroll in a maximum of 15 SCH.
3. If the CGPA of 2.30 or higher is achieved during or at the conclusion of the probationary period, the probation will be lifted and the hold removed from the students’ accounts.

Dismissal

Students are only allowed one probationary period during their matriculation within the College of Business. A student may be dismissed from the College of Business if any of the following applies:

1. Following the conclusion of the probationary period, an ARGPA of 2.30 or higher is not achieved.
2. Following the conclusion of the probationary period, a CGPA of 2.30 or higher is not achieved.
3. The CGPA is below 2.30 at the conclusion of any semester (for all students).

Upon dismissal, a registration hold will be placed on the student’s account. In order to get the hold removed, the student must change his/her major to a non-Business area. Dismissed students who have not completed College of Business requirements may not be eligible to receive a Bachelor of Business Administration (B.B.A.) degree from the College of Business.

If dismissed, a student will have the right to appeal to the Dean in writing within 30 days of receiving a notice of dismissal.

Special Programs

Double Majors

Students enrolled in baccalaureate degree programs in the College of Business who elect to complete requirements of two majors will be awarded the B.B.A. degree with a double major. (See requirements for a second baccalaureate degree under the Academic Information and Regulations section.)

Certification in Entrepreneurship

This is a special program designed to enable non-business as well as business majors to gain functional knowledge and skills in business in order to become successful entrepreneurs. Requirements for the Certificate in Entrepreneurship may be found in the Department of Management and Marketing section of the catalog.
Minor Fields of Study

Students are encouraged to complete a minor in a field other than their major to enhance the value of their baccalaureate degree. See the next section for details on the minors offered by the College of Business.

Internships and Cooperative Education

Opportunities for practical experience in the business world are available through the co-op and/or internship programs. Eligibility for these structured work experiences include, but are not limited to, sophomore or higher standing with a minimum grade point average of a 2.50 as well as satisfactory completion of a few business courses as indicated by the Department Head. Students can enroll in one of several elective courses offered to earn credit for their internship experience.

Minor Fields of Study

Students are encouraged to add minors to broaden their knowledge base and improve their chances in the workplace. The College offers minors in the following nine areas:

- Accounting
- Business Administration (Management)
- Business Analytics
- Economics
- Finance
- Innovation and Entrepreneurship
- International Business
- Personal Financial Planning
- Management Information Systems
- Marketing
- Real Estate
- Supply Chain Management

The course requirements for each minor area are listed under their respective departments.

Business students are encouraged to minor in a business field other than their major field of study. For business students interested in adding a minor in another business area, 6 SCH from their major area may be counted towards the minor (receive dual credit). Consult the Department Head for specific minor requirements.

For non-business students taking a business minor, a grade of "D" may be acceptable in one business course provided the student has a GPA of 2.0 or higher. For junior- and senior-level courses, the College accepts credit only from a regionally-accredited four-year college or higher in the minor area.

The Business Administration (Management) minor is unavailable to business majors.

Graduate Programs in Business

The College of Business offers graduate programs leading to a Master of Business Administration (MBA) and a Master of Science in Accounting (MSA) for working professionals. The College of Business also offers an Executive MBA program leading to a Master of Business Administration (MBA) degree for professionals with managerial experience. The MBA and EMBA programs require the successful completion of a minimum of 36 semester credit hours (SCH) and the MSA degree requires the successful completion of a minimum of 30 SCH. There is no thesis option required in the MSA or the MBA programs.

The MBA program is also available online. The curriculum and program learning goals are identical to those of the courses delivered in the classroom. Some scheduling adjustments have been made to accommodate the online environment.

The EMBA degree program is designed for experienced professionals and managers who will benefit from understanding business principles they need to be successful in growing their own businesses, or advancing with their employers. Faculty and corporate mentors provide useful skills and a framework to craft a better business strategy as well as understand key tactical and strategic business challenges in a global economy.

Accreditation

The graduate degree programs are accredited by the Association to Advance Collegiate Schools of Business (AACSB) International.

Admission Requirements

A student interested in the MBA, EMBA or MSA program must meet the general admission requirements outlined in the Graduate School section of this catalog. Admission to the Graduate School does not guarantee admission to a graduate degree program in the College of Business. The
admission decision is based on a combination of factors including, Graduate Management Test (GMAT) or the Graduate Record Exam (GRE) scores, undergraduate cumulative GPA, an essay, an interview and professional work experience.

Mathematics and Computer Proficiency Requirements

Prior to enrolling in the MBA or MSA degree program, the student must have successfully accomplished at least six hours of college-level mathematics as evidenced on a student transcript or supporting documentation. In addition, the new graduate student must have successfully completed MISY 1013 or the equivalent course in computer literacy with a grade of "C" or better.

Regular (Degree-Status) Admission

An applicant may be admitted to the MBA or MSA degree program as a regular graduate student if he or she:

1. Has an undergraduate degree from an accredited university. Students without a recent bachelor's degree in business or its equivalent may be required to completed additional coursework.
2. Has a cumulative undergraduate grade point average (GPA) of 2.75 or better on a 4.0 scale or has a GPA of 2.75 or better for the last 60 earned hours of undergraduate credit.
3. Achieves minimum required total score on the GMAT or GRE prior to enrollment.
4. Submits an essay describing why he or she wants a graduate degree in business; the essay should not exceed 1,000 words.

Provisional Admission

Provisional admission to the graduate program may be granted to applicants who do not satisfy the above admission requirements. A student with provisional status may be required to complete additional coursework, submit GMAT or GRE scores no more than five (5) year old, and/or maintain a specific grade point average. General restrictions on the provisional status student are:

1. The student must enroll in courses recommended by the Director.
2. If the student’s GPA is below 2.50 on a 4.0 scale, he or she may be asked to supply additional information to support his or her application.
3. The student may enroll for a maximum of 12 semester credit hours of graduate courses. To continue in the program, the student must be admitted to degree status prior to enrolling in more than 12 semester credit hours.
4. A provisional student in the MBA degree program that does not have an undergraduate degree in business must during the first 12 semester credit hours include at least two of the following courses: MGMT 5113, ACCT 5003, or FINA 5003. A provisional student who has an undergraduate degree in business must during the first 12 semester credit hours must include ACCT 5103 and FINA 5103. The student may be exempted from selected courses if their undergraduate program contained subject matter equivalent to that required in the prerequisite course,
5. A provisional student in the MSA degree program who has an undergraduate degree in accounting must during the first 12 semester credit hours include at least two of the core courses. A provisional student who does not have an undergraduate degree with a major in accounting must during the first 12 semester credit hours take prerequisite courses. The student may be exempted from selected courses if their undergraduate program contained subject matter equivalent to that required in the prerequisite courses.
6. Submission of an essay describing why the student wants a graduate degree in business; the essay should not exceed 1,000 words.
7. The maximum length of a provisional period is four academic semesters, counted from the time of the first enrollment.

A student with provisional admission may attain regular status if he or she:

1. Maintains a cumulative GPA of 3.0 or greater during the first 12 semester credit hours.
2. Has no more than one grade of "C."
3. Has no grade lower than “C.”
4. Submits GMAT or GRE scores no more than five (5) years old prior to completion of the first semester of enrollment.
5. Is recommended for degree status by the Director and the Dean of the College of Business.

Academic Performance Standards

In order to show academic progress, a graduate business student must maintain a cumulative GPA of 3.0 or higher. A student with a cumulative GPA below 3.0 will be placed on probationary status, academic suspension or academic dismissal as described in the Academic Information and Regulation, General Academic section of this graduate catalog. A graduate business student is considered to be in good standing if he or she has:

1. A cumulative GPA of 3.0 or higher.
2. No more than two grades of “C” in core courses.
3. No grade lower than “C” in core courses counted toward their graduate business degree.
4. An approved degree plan.
Probationary Status
A student is placed on probation when his or her cumulative GPA falls below 3.0. A student can stay in probationary status for a maximum of 12 semester credit hours or two consecutive semesters.

Academic Suspension
A student who is on academic probation for more than two consecutive semesters, will be suspended from the program. A student under suspension cannot enroll in any course for one semester. A suspended student may request to return to the program by submitting a written petition to the Director of Graduate Programs in Business at least 30 days prior to the start of the semester in which they intend to return. In the petition the student must identify the problem(s) with their academic performance and steps intended to improve their academic performance. If the petition is approved, the student may return to the program in probationary status.

Academic Dismissal
After the second academic suspension, a student will be dismissed from the graduate business program. A dismissed student may request readmission to the program by submitting a written petition to the Director at least 30 days prior to the start of the semester in which they intend to return. The petition must identify the problem(s) with the student’s past academic performance and steps planned to improve future academic performance. Readmission to the program may be possible, but no specific time for a decision is established.

The Two-C Rule
A maximum of two “C” grades in core courses (or six SCH) will be accepted toward the graduate degree.

Repeating a Course (“C” or lower grade)
A student may petition to retake a course to improve a grade. Courses with a grade of “C” or lower may be repeated only once.

Transfer Credit
A new student may transfer a maximum of two courses (6 SCH) from an accredited institution by:

1. Submitting an Approval for Transfer of Credits form to the Director of the Graduate Programs in Business.
2. Submitting a (official catalog) description of the course to the Director.
3. Submitting an official transcript showing a grade of “B” or better in the course(s).
4. Obtaining written approval for the courses from the Director who will include the transferred hours in the Graduate Degree Plan.
5. Transfer coursework will not be considered or applicable to the student’s degree that will be more than six (6) years old at the time the degree is awarded.

A current student in good academic standing may transfer a maximum of six graduate credit hours from an accredited institution by:

1. Attaining degree status and having a cumulative GPA of 3.0 or better.
2. Submitting the official catalog description of the transfer courses to the Director at least four weeks prior to enrollment. A course syllabus may be required.
3. Obtaining written approval for the course by the Director prior to enrollment.
4. Earning “B” or better in the course.
5. Requesting that the university where the course was taken send an official transcript (showing the final grade) to the Director.
6. Adhering the University guidelines and policies regarding the transfer of courses.

Admission to Candidacy and Degree Plan
Admission to the graduate business program does not constitute admission to candidacy. Admission to candidacy will be granted to a degree status student who has completed at least 12 semester hours of graduate credit with a cumulative GPA of 3.0 or more. The student must submit an Application for Admission to Candidacy form.

The Application for Admission to Candidacy must be approved by the Director and the Dean. The approval of the Application for Admission to Candidacy is granted by the Dean upon approval from the Office of Graduate Programs. Failure to fulfill this requirement may prevent the student from enrolling in the next semester.

Master of Business Administration (MBA)

Degree Program
The MBA program provides students with the opportunity to acquire the knowledge and skills necessary to succeed as managers, entrepreneurs, and business leaders. The program integrates various business disciplines to provide the high-quality educational experience needed for managing a business. In addition to emphasizing tools and techniques, the program strives to impart educational qualities that are conducive to a professional life of
learning, growth, and ethical conduct. The goal of the program is to produce graduates who are capable of solving managerial problems in a dynamic national and global environment.

**Program Learning Goals**

- **Program Goal 1: Mastery of Content:** Graduates will demonstrate an ability to think critically and to solve business problems.
- **Program Goal 2: Ethics:** Graduates will effectively evaluate business ethical situations, incorporating the laws and standards relating to ethical corporate governance and the importance of personal integrity.
- **Program Goal 3: Global Perspective:** Graduates will be proficient in handling global business issues, including the ability to tailor business practices to business practices have a global perspective.
- **Program Goal 4: Communications:** Graduates will be effective communicators.

**MBA Program Requirements**

The MBA requires a total of 36 semester credit hours including 30 SCH of core courses and 6 SCH of electives assuming all prerequisites for the core courses have been satisfied. A student whose undergraduate program includes some subject content equivalent to the prerequisite courses may be exempted from selected courses. A student may also receive an exemption from specific prerequisite courses through examination or transfer. Specific course requirements will be determined during the admission process which includes a complete review of undergraduate transcripts and work experience.

**Prerequisite Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 5003</td>
<td>Concepts of Accounting</td>
<td>3</td>
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<tr>
<td>ECON 5003</td>
<td>Concepts of Economic Analysis</td>
<td>3</td>
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<td>FINA 5003</td>
<td>Concepts of Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5113</td>
<td>Business Statistics</td>
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<tr>
<td>MRKT 5003</td>
<td>Concepts of Marketing</td>
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<td><strong>Total Hours</strong></td>
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**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACCT 5103</td>
<td>Managerial Accounting</td>
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<tr>
<td>BCOM 5203</td>
<td>Managerial Communication</td>
<td>3</td>
</tr>
<tr>
<td>MISY 5103</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5103</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>FINA 5103</td>
<td>Theory of Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5103</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5123</td>
<td>Quantitative Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5323</td>
<td>Strategy and Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5433</td>
<td>Production and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 5303</td>
<td>Marketing Management</td>
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**Elective Courses**

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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECON 5313</td>
<td>International Trade and Business</td>
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<tr>
<td>FINA 5313</td>
<td>Investment Analysis and Management</td>
</tr>
<tr>
<td>FINA 5333</td>
<td>International Finance</td>
</tr>
<tr>
<td>FINA 5383</td>
<td>FIN MRKT &amp; Inst</td>
</tr>
<tr>
<td>MGMT 5343</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>MGMT 5353</td>
<td>Entrepreneurship and Innovation</td>
</tr>
<tr>
<td>MGMT 5613</td>
<td>Special Topics</td>
</tr>
<tr>
<td>MISY 5323</td>
<td>Data Com &amp; Network</td>
</tr>
<tr>
<td>MISY 5413</td>
<td>App Database Management</td>
</tr>
<tr>
<td>MISY 5423</td>
<td>Info Syst Analysis</td>
</tr>
<tr>
<td>MISY 5533</td>
<td>SP Topics in MISY</td>
</tr>
<tr>
<td>MRKT 5313</td>
<td>International Marketing</td>
</tr>
</tbody>
</table>

**Total Hours**

36
Master of Science in Accounting (MSA)

Degree Program
The Master of Science in Accounting (MSA) degree is designed to provide advanced accounting preparation for careers in public, private and governmental accounting. The MSA will also prepare students to meet the Texas State Board of Public Accountancy prerequisites to the Uniform CPA Examination.

Program Learning Goals

- **Program Goal 1: Mastery of Content**: Graduates will demonstrate an ability to think critically and to solve accounting problems.
- **Program Goal 2: Ethics**: Graduates will effectively evaluate ethical situations that a CPA might face in a business setting, incorporating the laws and standards relating to financial reporting and the importance of personal integrity.
- **Program Goal 3: Global Perspective**: Graduates will be proficient in handling global accounting issues, including the ability to tailor accounting practices to a global economy.
- **Program Goal 4: Communications**: Graduates will demonstrate communication skills appropriate for high-level managers.

MSA Degree Program Requirements

The MSA requires a total of 30 semester credit hours (SCH) including 21 SCH of core courses and 9 SCH of electives. A student with a non-accounting undergraduate degree must complete some prerequisite courses with a grade of “C” or greater before he or she can be fully admitted to the MSA program; these courses cannot be used to fulfill the requirements of the MSA degree. A student whose non-accounting undergraduate program contained subject matter equivalent to that required by the prerequisite courses may be exempted from selected courses. A student may also be exempted through examination or transfer of approved credit. Specific program requirements will be determined during the admission process which includes a complete review of undergraduate transcripts and work experience.

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ACCT 2113</td>
<td>Financial Accounting</td>
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</tr>
<tr>
<td>ACCT 2123</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3213</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3223</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3333</td>
<td>Federal Income Tax I</td>
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</tr>
<tr>
<td>ACCT 4223</td>
<td>Auditing</td>
<td>3</td>
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</table>

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
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<tr>
<td>ACCT 5113</td>
<td>Advanced Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5123</td>
<td>Accounting Information Systems &amp; Controls</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5133</td>
<td>Accounting for Managerial Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5143</td>
<td>Accounting Theory</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5153</td>
<td>Seminar on Tax Consulting, Planning and Research</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 5163</td>
<td>Law &amp; Ethics for Accountants</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 5203</td>
<td>Managerial Communication</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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Elective Courses

Select three of the following: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ACCT 5243</td>
<td>International Accounting</td>
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<tr>
<td>MISY 5103</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>ECON 5103</td>
<td>Managerial Economics</td>
</tr>
<tr>
<td>ECON 5313</td>
<td>International Trade and Business</td>
</tr>
<tr>
<td>FINA 5103</td>
<td>Theory of Financial Management</td>
</tr>
<tr>
<td>FINA 5313</td>
<td>Investment Analysis and Management</td>
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<td>FINA 5333</td>
<td>International Finance</td>
</tr>
<tr>
<td>FINA 5383</td>
<td>FIN MRKT &amp; Inst</td>
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<tr>
<td>MGMT 5103</td>
<td>Organizational Behavior</td>
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<td>Quantitative Analysis</td>
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<td>MGMT 5343</td>
<td>Human Resource Management</td>
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<td>MGMT 5353</td>
<td>Entrepreneurship and Innovation</td>
</tr>
<tr>
<td>MGMT 5433</td>
<td>Production and Operations Management</td>
</tr>
</tbody>
</table>
Executive Master of Business Administration (EMBA)

The Executive MBA program is designed for experienced professionals and managers who would benefit from understanding business principles they need to be successful in either growing their own business, or moving up in their company. Faculty and corporate mentors provide useful tools and a framework for people who need to craft a better business strategy as well as understand some key business tools and philosophies. The EMBA program is fast-paced and rigorous; students receive a lot of information and are able to apply it immediately in their business environment.

Program Learning Goals

- **Program Goal 1:** Mastery of Content: Graduates will demonstrate knowledge, cognizance, analysis, and solution of managing diverse organizational challenges.
- **Program Goal 2:** Ethical Leadership: Graduates will be cognizant of ethical challenges and leadership issues pertaining to a business environment.
- **Program Goal 3:** Global Perspective: Graduates will develop knowledge regarding the global issues, practices, challenges so as to be successful leaders in a global economy.
- **Program Goal 4:** Communications: Graduates will be effective rhetorical savvy so as to be compelling, persuasive, and influential in the management of modern corporations.

EMBA Requirements

Prospective students will need to have earned a bachelor's degree. Applicants must have at least three years of professional work experience for program consideration. Applicants must complete an application for the program, submit three reference letters, an essay, a resume and pay an application fee. Applicants will also have to go through an interview with a member of the admissions committee. Given the professional work experience requirement, there is no GMAT or GRE requirement for admission to this program.

Department of Accounting, Finance and Management Information Systems

Purpose and Goals

The Accounting program is designed to offer high-quality, comprehensive accounting education which prepares students for immediate employment in the private and public sectors as well as for graduate or professional education. Students are provided an accounting curriculum which offers general business education in a liberal arts setting that encourages logical, analytical and creative strategic thinking and ethical conduct that fosters positive competition to develop confident, global-minded individuals who possess the requisite knowledge and skills to become leaders in their organizations.
The program supports a learning environment based on open communication and interaction among faculty, students and potential employers and provides structured practical experience through student internships.

The Finance program is designed to prepare students for professional careers in the private and public sectors, and to prepare them to pursue graduate studies in finance or related disciplines. It seeks to provide students with a comprehensive and contemporary education in financial concepts and practices with sufficient flexibility to respond to dynamic national and global environments. In addition, the program fosters the development of innovative skills among its graduates and focuses on ethical conduct and professionalism in the work environment.

The Management Information Systems (MIS) program is designed to prepare students to design, develop, operate, and manage computer software systems and computer-based management information systems. Program content is broad enough to enable students to integrate concepts and apply knowledge and tools of advanced information technology to practical applications in accounting, finance, and operations management. Graduates of the program are competent and capable of working with current and future information systems technology and knowledgeable of business computer languages.

The program is based on a broad liberal arts education, followed by upper-level study in computer-based information systems. In order to achieve the goal of developing students as confident and well-rounded, the program provides an intense learning environment based on student, faculty, and corporate interaction.

Special Emphasis Options

Certified Public Accountant

The Texas Public Accountancy Act of 1991 requires 150 hours of academic credits as a prerequisite to register and sit for the 1997 Uniform Certified Public Accountancy (CPA) Examination. Completing an MS in Accounting (MSA) degree is a good way to earn additional credit hours beyond the bachelor's degree. Students desiring a career as a CPA should consider admission to the MSA (or MBA) program in order to be eligible for the CPA examination (150 hours). For additional information on the MSA (or MBA) program, consult the Graduate Catalog.

4+1 Program in Accounting

The 4+1 program is designed to help accounting students to seamlessly move into the Masters of Science program in Accounting (MSA) upon completion of the Bachelor of Business Administration (BBA) program in accounting. Students may be allowed to double count two courses (6 sch) toward meeting the degree requirements of both programs (BBA and MSA). Besides enhancement of knowledge in the accounting discipline, the program will help students academically prepare for the CPA exam. Students in the program may be eligible for the Fifth-Year Accounting Student Scholarship Program available through the Texas State Board of Public Accountancy. For additional information about the admission and degree requirements for the MSA and MBA programs, see the Graduate Programs in Business section of the University catalog.

Honor Societies and Student Organizations

Students are encouraged to participate in clubs and honor societies in their respective disciplines. These organizations provide valuable experience and help develop leadership skills.

Beta Alpha Psi, the premier international honor and service organization for accounting, finance and business information system students and professionals, inspires and supports excellence by encouraging the study and practice of these fields of study. Members are provided with opportunities for service, professional development and greater interaction.

In addition to the honor societies, clubs, and service organizations listed in the College of Business section, accounting majors are encouraged to seek membership in the National Association of Black Accountants (NABA). A national organization for accountants and accounting students, NABA encourages and helps students enter the accounting profession, promotes professional development in accounting, and provides assistance in developing accounting education for members of minority groups. Membership is open to students majoring in accounting and others who subscribe to the club mission.

Association for Information Technology Professionals (AITP) local chapter, an organization for information systems students, conducts seminars, tutorials, and field trips to promote individual and group exposure to advanced information technology theory, tools and methods. Membership is open to all majors.

Students may also participate in the Prairie View Finance Association (PVFA), an organization for finance students, which promotes the following goals:

1. Stimulation of the students’ interests in the field of finance.
2. Achievement of excellence among students in the department.
3. Application of academic knowledge to practical situations.
4. Promotion of ethical principles, standards, financial literacy and professionalism emphasizes finance as practitioners in the industry.
Departmental requirements

Business students will be allowed to count a maximum of 6 SCH from their major area courses towards the minor requirements. Any additional courses which are common between the major area of study and the minor area would have to be made up by additional courses in the minor area. Consult department head for details.

All electives must be at the junior/senior level.

Non-Business students are required to maintain a cumulative GPA of a 2.0 or higher for graduation; they can have only one “D” in the minor area courses.

Students must have a cumulative GPA of 2.3 or higher in order to graduate with a Bachelor of Business Administration degree in this department.

Bachelor of Business Administration in Accounting Degree Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
</tr>
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<tbody>
<tr>
<td>College of Business students must complete PSYC 1113 to satisfy the University core social and behavioral science requirements. They must also complete FINA 2103 and MISY 1013 to satisfy the University core professional development areas one and two respectively.</td>
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<table>
<thead>
<tr>
<th>General Education Supplement for Accounting Majors (21 sch)</th>
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<tbody>
<tr>
<td>MATH 1153  Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2113  Principles of Microeconomics</td>
<td>3</td>
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<tr>
<td>ECON 2123  Principles of Macroeconomics</td>
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<td>ECON Elective</td>
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<td>MGMT 1163  Quantitative Business Analysis</td>
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<td>MGMT 2000  Prof Development for Business</td>
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<tr>
<td>MGMT 3013  Business Statistics</td>
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<td>ACCT 3243  Ethics for Accountants</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>College Requirements (33 sch)</th>
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<tbody>
<tr>
<td>ACCT 2113  Financial Accounting</td>
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<td>ACCT 2123  Managerial Accounting</td>
<td>3</td>
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<tr>
<td>BCOM 3303  Business Communication</td>
<td>3</td>
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<tr>
<td>BLAW 2203  Legal Environment of Business</td>
<td>3</td>
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<td>FINA 3103  Principles of Finance</td>
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<tr>
<td>MISY 2013  Fundamentals of MIS with SAP</td>
<td>3</td>
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<td>MGMT 1013  Introduction to Business</td>
<td>3</td>
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<td>MGMT 3103  Principles of Management</td>
<td>3</td>
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<td>MGMT 4000  Professional Development For Business II</td>
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<td>MGMT 4303  Strategic Management and Business Policy</td>
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<td>MRKT 3103  Principles of Marketing</td>
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<tbody>
<tr>
<td>ACCT 3213  Intermediate Accounting I</td>
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<td>ACCT 3223  Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3313  Cost Accounting</td>
<td>3</td>
</tr>
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<td>ACCT 3333  Federal Income Tax I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4213  Advanced Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4223  Auditing</td>
<td>3</td>
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<td>ACCT 4313  Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 2213  Business Law</td>
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<tr>
<td>ACCT Electives</td>
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Total Hours: 126

---

1. College of Business students must earn a grade of "C" or better in the following courses: ENGL 1123, ENGL 1133 and MATH 1113.
2. A grade of "C" or higher is required. Also, a grade of "C" or higher is required in all business courses used to satisfy graduation requirements.
3. Electives must be at the junior/senior level; internship/co-op courses cannot be used as major electives.
### Bachelor of Business Administration in Finance Degree Requirements

**Core Curriculum**

College of Business students must complete PSYC 1113 to satisfy the University core social and behavioral science requirements. They must also complete FINA 2103 and MISY 1013 to satisfy the University core professional development areas one and two respectively.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 1153</td>
<td>Finite Mathematics</td>
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<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
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</tr>
<tr>
<td>ECON 2123</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1163</td>
<td>Quantitative Business Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3013</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2203</td>
<td>Leadership and Ethics</td>
<td>3</td>
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</table>

**General Education Supplement for Finance Majors (21 sch)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1153</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2123</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1163</td>
<td>Quantitative Business Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3013</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2203</td>
<td>Leadership and Ethics</td>
<td>3</td>
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**College Requirements (33 SCH)**

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<tbody>
<tr>
<td>ACCT 2113</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2123</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 3303</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 2203</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3103</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>MISY 2013</td>
<td>Fundamentals of MIS with SAP</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1013</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2000</td>
<td>Prof Development for Business</td>
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</tr>
<tr>
<td>MGMT 3103</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4000</td>
<td>Professional Development For Business II</td>
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</tr>
<tr>
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<td>Strategic Management and Business Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4333</td>
<td>Production and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 3103</td>
<td>Principles of Marketing</td>
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**Major Area Requirements (24 sch)**

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>FINA 3333</td>
<td>Investment Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3383</td>
<td>Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FINA 4213</td>
<td>Managerial Finance</td>
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<td>FINA 4313</td>
<td>Investment Management</td>
<td>3</td>
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<tr>
<td>Finance Electives</td>
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<tr>
<td>ACCT 3213</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4213</td>
<td>Intermediate Microeconomic Analysis</td>
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<td>Intermediate Macroeconomic Analysis</td>
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**Select one of the following:**

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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ECON 4213</td>
<td>Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4223</td>
<td>Intermediate Macroeconomic Analysis</td>
<td>3</td>
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</tbody>
</table>

**Total Hours**

123

1. College of Business students must earn a grade of "C" or better in the following courses: ENGL 1123, ENGL 1133 and MATH 1113.
2. A grade of "C" or higher is required. Also, a grade of "C" or higher is required in all business courses used to satisfy graduation requirements.
3. Electives must be at the junior/senior level; internship/co-op courses cannot be used as major electives only as business electives with the approval of the department head.

---

### Bachelor of Business Administration in Management Information Systems Degree Requirements

**Core Curriculum**

College of Business students must complete PSYC 1113 to satisfy the University core social and behavioral science requirements. They must also complete FINA 2103 and MISY 1013 to satisfy the University core professional development areas one and two respectively.

**General Education Supplement for Management Information Systems Majors (21 sch)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>MATH 1153</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ECON 2123</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>ECON Elective</td>
<td></td>
<td>3</td>
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<tr>
<td>MGMT 1163</td>
<td>Quantitative Business Analysis</td>
<td>3</td>
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<tr>
<td>MGMT 3013</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2203</td>
<td>Leadership and Ethics</td>
<td>3</td>
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<tr>
<td><strong>College Requirements (33 sch)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 2113</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2123</td>
<td>Managerial Accounting</td>
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</tr>
<tr>
<td>BLAW 2203</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 3303</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3103</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>MISH 2013</td>
<td>Fundamentals of MIS with SAP</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1013</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>MGMT 2000</td>
<td>Prof Development for Business</td>
<td>0</td>
</tr>
<tr>
<td>MGMT 3103</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4000</td>
<td>Professional Development For Business II</td>
<td>0</td>
</tr>
<tr>
<td>MGMT 4303</td>
<td>Strategic Management and Business Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4333</td>
<td>Production and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 3103</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Major Area Requirements (24 sch)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MISH 2153</td>
<td>Object-Oriented Programming Applications in Business</td>
<td>3</td>
</tr>
<tr>
<td>MISH 3323</td>
<td>Networking</td>
<td>3</td>
</tr>
<tr>
<td>MISH 3413</td>
<td>Business Database Applications</td>
<td>3</td>
</tr>
<tr>
<td>MISH 3423</td>
<td>Enterprise Systems Analysis and Design</td>
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<tr>
<td>MISH 3433</td>
<td>JAVA Applications in Business</td>
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<tr>
<td>MISH 4523</td>
<td>Enterprise Strategic IT Management</td>
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<td><strong>Business Elective</strong></td>
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<tr>
<td><strong>Total Hours</strong></td>
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<td>123</td>
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</table>

1 College of Business students must earn a grade of “C” or better in the following courses: ENGL 1123, ENGL 1133 and MATH 1113.
2 A grade of “C” or higher is required. Also, a grade of “C” or higher is required in all business courses used to satisfy graduation requirements.
3 Electives must be at the junior/senior level; internship/co-op courses cannot be used as a major elective, only as a business elective with the approval of the department head.

**Minors in the Department of Accounting, Finance and Management Information Systems**

Business students will be allowed to count a maximum of 6 SCH from their major area courses towards the minor requirements. Any additional courses which are common between the major area of study and the minor area would have to be made up by additional courses in the minor area. Consult department head for details.

Non-Business students are required to maintain a cumulative GPA of a 2.0 or higher for graduation; they can have only one “D” in the minor area courses.

**Requirements for a Minor in Accounting**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2113</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2123</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3121</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3313</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4313</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCT Elective (3000 or 4000 level)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>FINA 3103</td>
<td>Principles of Finance</td>
<td>3</td>
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<tr>
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Requirements for a Minor in Finance

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<tbody>
<tr>
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<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2123</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3103</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3333</td>
<td>Investment Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3383</td>
<td>Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FINA 4213</td>
<td>Managerial Finance</td>
<td>3</td>
</tr>
<tr>
<td>Finance Elective (3000 or 4000 level; internship/co-op cannot be used)</td>
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<td></td>
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<td>Total Hours</td>
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Requirements for a Minor in Personal Financial Planning

<table>
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</thead>
<tbody>
<tr>
<td>ACCT 3333</td>
<td>Federal Income Tax I</td>
<td>3</td>
</tr>
<tr>
<td>PFIN 3123</td>
<td>Financial Planning and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3333</td>
<td>Investment Analysis</td>
<td>3</td>
</tr>
<tr>
<td>PFIN 4113</td>
<td>Retirement Planning and Employee Benefits</td>
<td>3</td>
</tr>
<tr>
<td>PFIN 4123</td>
<td>Estate Planning</td>
<td>3</td>
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<tr>
<td>PFIN 4433</td>
<td>Financial Planning Capstone</td>
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Requirements for a Minor in Management Information Systems

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<th>Hours</th>
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<tbody>
<tr>
<td>MISY 2013</td>
<td>Fundamentals of MIS with SAP</td>
<td>3</td>
</tr>
<tr>
<td>MISY 2153</td>
<td>Object-Oriented Programming Applications in Business</td>
<td>3</td>
</tr>
<tr>
<td>MISY 3323</td>
<td>Networking</td>
<td>3</td>
</tr>
<tr>
<td>MISY 3413</td>
<td>Business Database Applications</td>
<td>3</td>
</tr>
<tr>
<td>MISY 3423</td>
<td>Enterprise Systems Analysis and Design</td>
<td>3</td>
</tr>
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<td>MIS Elective (3000 or 4000 level)</td>
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Requirements for a Minor in Real Estate

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>FINA 2103</td>
<td>Personal Financial Management and Planning</td>
<td>3</td>
</tr>
<tr>
<td>REST 3113</td>
<td>Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>REST 3223</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>REST 3253</td>
<td>Real Estate Investment</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 2203</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 2243</td>
<td>Law of Agency</td>
<td>3</td>
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<tr>
<td>Total Hours</td>
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4+1 Program in Accounting

The 4+1 program in Accounting is designed to help accounting students move seamlessly into the Master of Science in Accounting (MSA) program upon completion of the Bachelor of Business Administration (BBA) program in accounting. **Students will be allowed to double count two courses (6 sch) toward the degree requirements of both programs (BBA and MSA).** Besides enhancement of knowledge in the accounting discipline, the program will help students earn additional academic coursework and hours needed to sit for the CPA exam. Students in the program may be eligible for the Fifth Year Accounting Student Scholarship.

Admission

Students may apply for admission into the 4+1 program after completion of their sophomore year of the BBA program. Admission will be based on consideration of multiple factors, such as the grade point average (GPA) of at least 2.75 in the major area and other relevant evidence of academic achievement and leadership ability. Students must be fully admitted to the graduate school to satisfy the degree requirements for the MS in Accounting.

Although students cannot apply for admission into the 4+1 program prior to their sophomore year of the BBA program, it is strongly advised that interested students contact the department head or the 4+1 program coordinator regarding interest in the program. A suggested degree plan follows this section.
Completion of Two Degrees

Upon successful completion of the 4+1 program, students would be awarded the BBA in Accounting and MS in Accounting degrees.

Program Requirements

Since the 4+1 program essentially combines the BBA in Accounting and the MS in Accounting programs, the requirements for the combined program would be the same as those of the two separate programs together. These requirements are stated below.

For the BBA in accounting degree, requirements are:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>University Core Curriculum</td>
<td>42</td>
</tr>
<tr>
<td>General Education Supplement for Accounting Majors</td>
<td>21</td>
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<tr>
<td>College of Business Requirements</td>
<td>33</td>
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<tr>
<td>Major Area Requirements</td>
<td>30</td>
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<td><strong>Total Hours</strong></td>
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</table>

For the MS in Accounting (MSA) degree program, requirements are:

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<th>Requirement</th>
<th>Hours</th>
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<td>Elective Courses</td>
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</table>

Total 4+1 Program Requirements - 156 SCH

A suggested degree plan for the 4+1 program is given below. Freshmen and sophomore level students follow the degree plan for the Bachelor of Business Administration program in Accounting provided earlier.

Junior Year - First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3213</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3313</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3333</td>
<td>Federal Income Tax I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3013</td>
<td>Business Statistics</td>
<td>3</td>
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<td>MGMT 3103</td>
<td>Principles of Management</td>
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<tr>
<td>MIST 2013</td>
<td>Fundamentals of MIS with SAP</td>
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</table>

Junior Year - Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 3223</td>
<td>Intermediate Accounting II</td>
<td>3</td>
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<tr>
<td>ACCT 3243</td>
<td>Ethics for Accountants</td>
<td>3</td>
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<tr>
<td>BLAW 2213</td>
<td>Business Law</td>
<td>3</td>
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<td>FINA 3103</td>
<td>Principles of Finance</td>
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<td>MRKT 3103</td>
<td>Principles of Marketing</td>
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Senior Year - First Semester

<table>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>Auditing</td>
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</tr>
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<td>ACCT 4313</td>
<td>Accounting Information Systems</td>
<td>3</td>
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<tr>
<td>MGMT 4333</td>
<td>Production and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MSA Accounting Course*</td>
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<tr>
<td>Language, Philosophy and Culture</td>
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Senior Year - Second Semester

<table>
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<th>Hours</th>
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<tr>
<td>BCOM 3303</td>
<td>Business Communication (or BCOM 5203 Managerial Communication*)</td>
<td>3</td>
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<tr>
<td>MGMT 4303</td>
<td>Strategic Management and Business Policy</td>
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</tr>
<tr>
<td>Economics Elective (or a grad course in economics)*</td>
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<tr>
<td>MSA Accounting Course*</td>
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Graduate - Summer

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ACCT 5143</td>
<td>Accounting Theory</td>
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<td>ACCT 5133</td>
<td>Accounting for Managerial Decision Making</td>
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<tr>
<td>MSA Elective</td>
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</tbody>
</table>

Graduate - First Semester
ACCT 5113 Advanced Auditing 3
BCOM 5203 Managerial Communication 3
ACCT 5123 Accounting Information Systems & Controls 3

**Graduate - Second Semester**

ACCT 5163 Law & Ethics for Accountants 3
ACCT 5153 Seminar on Tax Consulting, Planning and Research 3
MSA Elective 3

Total Hours 87

*Two graduate courses can be counted for credit toward BBA and MSA degrees. Consult the 4+1 program coordinator or department head for details.*

**Department of Management and Marketing**

**Purpose and Goals**

Preparing managers for employment in organizations requires a liberal education that emphasizes and promotes an understanding of diverse economic, social, political, cultural, and environmental perspectives. The major emphases in the management and marketing curriculum are on problem identification, analysis and solution, decision making, business ethics, communication, team dynamics and leadership, as well as understanding and integrating other functional areas of business operations. Attention is given to the dynamic global business environment and to the immediate utilization of business skills.

Specifically, the objectives of the management program are: (1) to educate students for professional careers in management of both small and large businesses as well as provide them with the necessary background to pursue graduate or professional education; (2) to engage in research that will produce new knowledge and/or apply existing knowledge that will enhance the learning process; and (3) to contribute to the professional activities of the management community through service and participation in business organizations.

The mission objectives of the marketing program are: (1) to provide future marketing managers who can effectively plan and execute the creation, communication, and delivery of value to their customers and direct their organizations to maintain mutually satisfying relationships with their stakeholders, (2) to develop in students the ability to analyze the various marketing functions, recognize their integrative nature and utilize these skills for strategic decision-making, and (3) to prepare students to be ethical, professional, and team-oriented business leaders in profit and not-for-profit organizations, as well as providing them with the necessary foundation to pursue graduate or professional education.

The marketing program provides a high-quality marketing education at the baccalaureate degree level. The program offers a comprehensive survey of the fundamental principles, theories, and contemporary practices of marketing professionals in today’s global environment. Students learn the necessary skills to effectively plan and execute the conception, pricing, promotion and distribution of goods and services to satisfy the needs of customers, the organization and society. While the core of the program emphasizes a balanced exposure to all aspects of marketing, opportunities are offered for more in-depth study of specific functional areas of marketing. The marketing faculty is committed to preparing students to be ethical, professional and team-oriented business leaders in profit and nonprofit organizations, as well as providing them with the necessary background to pursue graduate or professional education.

Courses in economics are offered to provide students with the basic knowledge of economics relevant to the business environment. The course content combines the fundamental skills of the subject matter with the analytical and quantitative tools needed to function effectively in making rational business decisions. Courses materials also emphasize the changing structure of national and global economies and prepare students to analyze economic and business problems from a broad perspective. Effective communication skills and ethical standards expected of business professionals in the field are also the focus of much of the course content.

**Department Requirements**

Students with major requirements which include one or more of the courses listed as required for their minor will be allowed to count a maximum of 6 SCH to fulfill both their major and minor area requirements. Any additional courses that are common between the major area of study and the minor area would have to be substituted by upper-level courses in the minor area. The substituted courses must be approved by the Dean of the College of Business. Consult the Department Head offering the minor for details.

All non-Business students are required to maintain a minimum cumulative GPA of a 2.0 in the minor areas for graduation; the student can have only one “D” in the courses required for the minor areas.

Business majors must earn a grade of “C or better” in every business course (except if taken as an unrestricted elective).

**Bachelor of Business Administration in Management Degree Program Requirements**

**Core Curriculum**

College of Business students must complete PSYC 1113 to satisfy the University core social and behavioral science requirements. They must also complete FINA 2103 and MISY 1013 to satisfy the University core professional development areas one and two respectively.
### General Education Supplement for Management Majors (21 SCH)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
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<tbody>
<tr>
<td>MATH 1153</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1163</td>
<td>Quantitative Business Analysis</td>
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</tr>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
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<td>ECON 2123</td>
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<tr>
<td>ECON Elective</td>
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<tr>
<td>MGMT 3013</td>
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<tr>
<td>MGMT 2203</td>
<td>Leadership and Ethics</td>
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### College Requirements (33 SCH)

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<tr>
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<td>BLAW 2203</td>
<td>Legal Environment of Business</td>
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<td>BCOM 3303</td>
<td>Business Communication</td>
<td>3</td>
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<tr>
<td>FINA 3103</td>
<td>Principles of Finance</td>
<td>3</td>
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<tr>
<td>MISY 2013</td>
<td>Fundamentals of MIS with SAP</td>
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<tr>
<td>MGMT 1013</td>
<td>Introduction to Business</td>
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<td>MGMT 2000</td>
<td>Prof Development for Business</td>
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<td>MGMT 3103</td>
<td>Principles of Management</td>
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<tr>
<td>MGMT 4000</td>
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<tr>
<td>MGMT 4333</td>
<td>Production and Operations Management</td>
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<tr>
<td>MGMT 3103</td>
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<tr>
<td>MRKT 3103</td>
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### Major Area Requirements (27 SCH)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
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</thead>
<tbody>
<tr>
<td>MGMT 3023</td>
<td>Introduction to Business Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3113</td>
<td>Introduction to Organizational Behavior</td>
<td>3</td>
</tr>
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<td>MGMT 3343</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3353</td>
<td>Human Resource Management</td>
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### Management Electives - Select three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
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</thead>
<tbody>
<tr>
<td>MGMT 3333</td>
<td>Commercializing Innovative Ideas</td>
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<tr>
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<td>Industrial Relations</td>
<td></td>
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<td>MGMT 3393</td>
<td>Cooperative Education II</td>
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</tr>
<tr>
<td>MGMT 4323</td>
<td>Supply Chain Management</td>
<td></td>
</tr>
<tr>
<td>MGMT 4383</td>
<td>Management Seminar</td>
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<tr>
<td>MGMT 4393</td>
<td>Cooperative Education III</td>
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<tr>
<td>MGMT 4413</td>
<td>International Environment of Business</td>
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</tr>
<tr>
<td>MGMT 4453</td>
<td>Special Topics in Management</td>
<td></td>
</tr>
<tr>
<td>MRKT 3113</td>
<td>Sports, Entertainment, and Event Marketing</td>
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</tr>
<tr>
<td>MRKT 3313</td>
<td>Retail Management</td>
<td></td>
</tr>
<tr>
<td>MRKT 3323</td>
<td>Salesmanship</td>
<td></td>
</tr>
<tr>
<td>MRKT 4333</td>
<td>Advertising</td>
<td></td>
</tr>
<tr>
<td>MRKT 4353</td>
<td>International Marketing</td>
<td></td>
</tr>
<tr>
<td>MRKT 4373</td>
<td>Sales Management</td>
<td></td>
</tr>
<tr>
<td>MRKT 4413</td>
<td>Distribution Management</td>
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<tr>
<td>MRKT 4423</td>
<td>Fundamentals of E-Marketing</td>
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</tr>
<tr>
<td>MRKT 4453</td>
<td>Special Topics in Marketing</td>
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<tr>
<td>ECON/FINA 4303</td>
<td>Money and Banking</td>
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</tr>
<tr>
<td>ECON 4343</td>
<td>International Trade</td>
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</table>

### Unrestricted Electives

- 6 SCH

### Total Hours

- 123

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A grade of “C” or higher is required in these courses. Business majors must earn a grade of “C” or higher in all business courses. Students must earn the University required passing grade “D” or higher in courses used as an unrestricted elective.
Bachelor of Business Administration in Marketing Degree Program Requirements

**Core Curriculum**

College of Business students must complete PSYC 1113 to satisfy the University core social and behavioral science requirements. They must also complete FINA 2103 and MISY 1013 to satisfy the University core professional development areas one and two respectively.

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<tr>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
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<td>ECON 2123</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1163</td>
<td>Quantitative Business Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 1013</td>
<td>Introduction to Business</td>
<td>3</td>
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<td>MGMT 2000</td>
<td>Prof Development for Business</td>
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<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>MGMT 4000</td>
<td>Professional Development For Business II</td>
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<td>MGMT 4333</td>
<td>Production and Operations Management</td>
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**General Education Supplement for Marketing Majors (21 SCH)**

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<tr>
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<tbody>
<tr>
<td>MATH 1153</td>
<td>Finite Mathematics</td>
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<tr>
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<td>Principles of Microeconomics</td>
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<td>MGMT 2203</td>
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<td>3</td>
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**College Requirements (33 SCH)**

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</thead>
<tbody>
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<td>Financial Accounting</td>
<td>3</td>
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<tr>
<td>ACCT 2123</td>
<td>Managerial Accounting</td>
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<tr>
<td>BCOM 3303</td>
<td>Business Communication</td>
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<tr>
<td>BLAW 2203</td>
<td>Legal Environment of Business</td>
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<td>FINA 3103</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
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<td>MISY 2013</td>
<td>Fundamentals of MIS with SAP</td>
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</tr>
<tr>
<td>MGMT 1013</td>
<td>Introduction to Business</td>
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<tr>
<td>MGMT 2000</td>
<td>Prof Development for Business</td>
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<tr>
<td>MGMT 3103</td>
<td>Principles of Management</td>
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</tr>
<tr>
<td>MGMT 4000</td>
<td>Professional Development For Business II</td>
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<tr>
<td>MGMT 4303</td>
<td>Strategic Management and Business Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4333</td>
<td>Production and Operations Management</td>
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</tr>
<tr>
<td>MRKT 3103</td>
<td>Principles of Marketing</td>
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**Major Area Requirements (27 SCH)**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MRKT 3333</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 4343</td>
<td>Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 4393</td>
<td>Marketing Communications</td>
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</tr>
<tr>
<td>MRKT 4413</td>
<td>Distribution Management</td>
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</tr>
<tr>
<td>MRKT 4493</td>
<td>Marketing Strategy and Analysis</td>
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Marketing Electives - Select three of the following:

- MRKT 3113 Sports, Entertainment, and Event Marketing
- MRKT 3313 Retail Management
- MRKT 3323 Salesmanship
- MRKT 3393 Cooperative Education II
- MRKT 4333 Advertising
- MRKT 4353 International Marketing
- MRKT 4423 Fundamentals of E-Marketing
- MRKT 4373 Sales Management
- MRKT 4453 Special Topics in Marketing
- MRKT 4593 Cooperative Education III
- MGMT 3333 Commercializing Innovative Ideas
- MGMT 3343 Project Management
- MGMT 3363 Industrial Relations
- MGMT 4323 Supply Chain Management
- MGMT 4483 Management Seminar
- MGMT 4413 International Environment of Business

**Total Hours**

123
A grade of “C” or higher is required in these courses. Business majors must earn a grade of “C” or higher in all business courses. Students must earn the University required passing grade “D” or higher in courses used as an unrestricted elective.

Minors in the Department of Management and Marketing

Students with major requirements which include one or more of the courses listed as required for their minor will be allowed to count a maximum of 6 SCH to fulfill both their major and minor area requirements. Any additional courses that are common between the major area of study and the minor area would have to be substituted by upper-level courses in the minor area. The substituted courses must be approved by the Dean of the College of Business. Consult the Department Head offering the minor for details.

All non-Business students are required to maintain a minimum cumulative GPA of a 2.0 in the minor areas for graduation; the student can have only one “D” in the courses required for the minor areas.

Requirements for a Minor in Business Administration (Non-Business majors only)

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ACCT 2113</td>
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<tr>
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<td>FINA 3103</td>
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<td>MISY 2013</td>
<td>Fundamentals of MIS with SAP</td>
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<td>MGMT 3103</td>
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<td>Total Hours</td>
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Students with major requirements which include one or more of the above listed courses must substitute other business courses for the course(s) included in their major requirements. The Dean of the College of Business must approve the substitute courses. This minor is an attractive option, especially for students in Engineering, Nursing, and Education. A minimum GPA of 2.0 in these courses is required for graduation; the student can have only one “D” in these courses.

Requirement for a Minor in Business Analytics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MGMT 3023</td>
<td>Introduction to Business Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MSYS 3413</td>
<td>Business Database Applications</td>
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<td>MGMT 3423</td>
<td>Data Mining Techniques</td>
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<tr>
<td>MISY 4533</td>
<td>Predictive Analytics</td>
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</tr>
<tr>
<td>MGMT 4433</td>
<td>Decision Modeling for Business Analytics</td>
<td>3</td>
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<tr>
<td>Suggested Electives (Select one course from below):</td>
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<tr>
<td>MISY 4353</td>
<td>Information Technology Project Management</td>
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<tr>
<td>MISY 4343</td>
<td>Cyber-Security for Electronic Commerce</td>
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<td>MGMT 3343</td>
<td>Project Management</td>
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<td>MGMT 3013</td>
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Requirements for a Minor in Economics

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<td>ECON 2123</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>ECON 4213</td>
<td>Intermediate Microeconomic Analysis</td>
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<td>ECON 4223</td>
<td>Intermediate Macroeconomic Analysis</td>
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Requirements for a Minor in International Business

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<tbody>
<tr>
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<tr>
<td>FINA 4353</td>
<td>International Finance</td>
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<tr>
<td>MGMT 4393</td>
<td>Cooperative Education III</td>
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<td>MGMT 4413</td>
<td>International Environment of Business</td>
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<td>MRKT 4353</td>
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### Requirement for a Minor in Marketing

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 3103</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 3333</td>
<td>Consumer Behavior</td>
<td>3</td>
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<tr>
<td>MRKT 4393</td>
<td>Marketing Communications</td>
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<td></td>
<td>Marketing Electives that are 3000 or 4000 level.</td>
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**Total Hours**: 21

### Requirements for a Minor in Innovation and Entrepreneurship

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<td>MGMT 2013</td>
<td>Design Thinking</td>
<td>3</td>
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<tr>
<td>MGMT 3333</td>
<td>Commercializing Innovative Ideas</td>
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<td>ENTR 4043</td>
<td>New Venture Creation</td>
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<tr>
<td>ENTR 3013</td>
<td>Economics for Entrepreneurs</td>
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</tr>
<tr>
<td>ENTR 3023</td>
<td>Diversity Entrepreneurship</td>
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<tr>
<td>ENTR 3033</td>
<td>Social Entrepreneurship</td>
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</tr>
<tr>
<td>ENTR 3093</td>
<td>Special Topics</td>
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<tr>
<td></td>
<td>IEP-approved event</td>
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</table>

**Total Hours**: 18

1 Participation in one IEP-approved activity/event is required. This can include, but is not limited to: business plan competitions, successful funding acquisition, grant-writing, and organizational leadership. Consult with your adviser.

### Requirements for a Certificate in Innovation and Entrepreneurship

<table>
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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>MGMT 2013</td>
<td>Design Thinking</td>
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<td>MGMT 3333</td>
<td>Commercializing Innovative Ideas</td>
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<tr>
<td></td>
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<td>ENTR 3013</td>
<td>Economics for Entrepreneurs</td>
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<td>ENTR 3023</td>
<td>Diversity Entrepreneurship</td>
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<tr>
<td>ENTR 3033</td>
<td>Social Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 3093</td>
<td>Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 4043</td>
<td>New Venture Creation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>IEP-approved event</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Hours**: 9

1 Participation in one IEP-approved activity/event is required. This can include, but is not limited to: business plan competitions, successful funding acquisition, grant-writing, and organizational leadership. Consult with your adviser.

### Requirements for a Minor in Supply Chain Management

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 4323</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4333</td>
<td>Production and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>SCMG 4343</td>
<td>Purchase Management</td>
<td>3</td>
</tr>
<tr>
<td>SCMG 4353</td>
<td>Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>SCMG 4363</td>
<td>Quality Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3343</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 4413</td>
<td>Distribution Management</td>
<td>3</td>
</tr>
<tr>
<td>MISY 4353</td>
<td>Information Technology Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours**: 18
Professional and Service Organizations

In addition to the professional and service organizations listed in the College section, management and marketing majors are eligible for membership in the American Marketing Association (AMA) and professional organizations sponsored by other College departments. Student chapters of AMA, the international society for marketing professionals, participate in national, regional, and local marketing activities.

College of Juvenile Justice and Psychology

Purpose and Goals

The College of Juvenile Justice and Psychology offers undergraduate courses leading to a Bachelor of Science degree in Criminal Justice or Criminal Justice with a specialization in Juvenile Justice; as well as, a Bachelor of Science degree in Psychology. The College also offers graduate courses leading to a Master of Science degree in Juvenile Justice, a Master of Science degree in Juvenile Forensic Psychology, a Ph.D. degree in Juvenile Justice, and a Ph.D. degree in Clinical Adolescent Psychology.

The College of Juvenile Justice & Psychology is committed to preparing students to be nationally competitive for graduate education and careers in criminal/juvenile justice and psychology. The psychology curriculum is designed to ensure that students acquire the research, knowledge, and skills to pursue careers in any area of endeavor (e.g., helping professions, industry, education, youth development). The criminal justice and specialization in juvenile justice programs are designed to produce graduates who are skilled in improving the life experiences of individuals in the juvenile/criminal justice systems, law enforcement, and child-helping organizations.

Instructional Organization

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice</td>
<td>BS</td>
</tr>
<tr>
<td>Criminal Justice with a specialization in Juvenile Justice</td>
<td>BS</td>
</tr>
<tr>
<td>Psychology</td>
<td>BS</td>
</tr>
<tr>
<td>Juvenile Forensic Psychology</td>
<td>MS</td>
</tr>
<tr>
<td>Juvenile Justice</td>
<td>MS &amp; PhD</td>
</tr>
<tr>
<td>Clinical Adolescent Psychology</td>
<td>PhD</td>
</tr>
</tbody>
</table>

The Texas Juvenile Crime Prevention Center

In 1997, the Texas Legislature authorized the creation of the Texas Juvenile Crime Prevention Center (Texas JCPC) at Prairie View A&M University. This resulted in the creation of the College of Juvenile Justice and Psychology. The Texas JCPC is unique in the State of Texas and the nation and is committed to assisting with the reduction of juvenile crime and delinquency among youth.

The purpose of the Texas JCPC is to:

- Increase the knowledge of educators, practitioners, and others by conducting research and evaluation relating to juvenile crime;
- Improve the knowledge and skills of students in the field of criminal justice by offering undergraduate degrees, graduate degrees, and continuing education;
- Improve the dissemination of information relating to the reduction of juvenile crime;
- Increase knowledge about programs and policies that address juvenile crime; and
- Enhance the skills of personnel by providing training and advice for practitioners engaged in juvenile crime and delinquency prevention.

Justice Studies

Alpha Phi Sigma - National Honor Society in Criminal Justice. The Honor Society was created to recognize scholarship among students of Criminal Justice and provide them with opportunities to attend various conferences sponsored by the national organization. Students are also provided information about opportunities in careers in Criminal Justice as well as educational opportunities in graduate and professional schools.

The Criminal Justice Club. This organization is open to any student majoring or minoring in Criminal Justice at this institution. The primary purpose of the organization is to provide its members with information about career opportunities and graduate and professional educational opportunities in the field. They also provide a forum for various recruiters to speak to its members and they also take field trips to area criminal justice agencies to observe and speak with professionals.

National Association of Blacks in Criminal Justice - Student Division. This is a national organization of Criminal Justice Professionals who provide its members with current information about the field of Criminal Justice. The Prairie View Chapter provides its members with opportunities to attend various conferences sponsored by the national organization and regional chapters. Students also have access to career counseling and information about career opportunities with various federal, state, and local agencies.
Psychology

Psi Chi is the National Honor Society in Psychology, founded in 1929 for the purposes of encouraging, stimulating, and maintaining excellence in scholarship, and advancing the science of psychology. Membership is open to graduate and undergraduate students who are making the study of psychology one of their major interests, and who meet the minimum GPA qualifications. Psi Chi is a member of the Association of College Honor Societies and is an affiliate of the American Psychological Association (APA) and the American Psychological Society (APS).

ABPsi Student Circle is a member of The Association of Black Psychologists, founded in San Francisco in 1968 to actively address the serious problems facing Black psychologists and the larger Black community. The Student Circle of the Association of Black Psychologists was founded in 1993 to serve as a mentoring program and establish a collective voice for the next generation. ABPsi Student Circle emphasizes community research and outreach and the need to prepare current students for future leadership roles in the field of psychology. The aim is to promote mentorship relations between professionals and psychology students and to aid in the struggle to improve the emotional well-being of people of African descent wherever possible. Membership is extended to students who major or minor in psychology.

The Psychology Club is a recognized student organization designed to provide an intellectual and social atmosphere for students. The purpose is to engage students in the exchange of information concerning the field of psychology, encourage student research and scholarship ideas, and to pursue excellence for entering into graduate school.

Department of Justice Studies

Purpose and Goals

The Criminal Justice Program is designed to produce proficient graduates who can excel in various aspects of the field in leadership, service, research, and innovation. Criminal Justice majors will have the benefit of an informed and caring faculty to challenge them in their preparation to meet the demands of today’s workplace and the nation’s most rigorous graduate programs. Our undergraduate programs are designed to produce graduates who are skilled in improving the life experiences of youths in the juvenile/criminal justice system, law enforcement, and child-helping organizations. Our undergraduate programs are also designed to ensure students acquire the knowledge and research skill to enter graduate programs in their chosen areas of specialization.

Instructional Organization

The Department of Justice Studies offers degrees in the following areas:

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice</td>
<td>B.S.</td>
</tr>
<tr>
<td>Criminal Justice with Specialization in Juvenile Justice</td>
<td>B.S.</td>
</tr>
<tr>
<td>Juvenile Justice</td>
<td>M.S. &amp; Ph.D.</td>
</tr>
</tbody>
</table>

Departmental Requirements

Only courses passed with grades of "C" or higher may be applied to the forty-two (42) semester hours constituting the Major Requirements for Criminal Justice.

Criminal Justice Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Juvenile Justice and Psychology Language Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

| Foreign Language Electives (One Language; One Sequence) |

<table>
<thead>
<tr>
<th>Support Area Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Select one from the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2003</td>
</tr>
<tr>
<td>PSYC 2613</td>
</tr>
<tr>
<td>SOCG 4053</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements for Criminal Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJS 1133</td>
</tr>
<tr>
<td>CRJS 2413</td>
</tr>
<tr>
<td>CRJS 2513</td>
</tr>
<tr>
<td>CRJS 2613</td>
</tr>
<tr>
<td>CRJS 2713</td>
</tr>
<tr>
<td>CRJS 3623</td>
</tr>
<tr>
<td>CRJS 3823</td>
</tr>
</tbody>
</table>
CRJS 4923  |  Criminology  |  3
CRJS 4983  |  Ethical Decision-Making in Criminal Justice  |  3

Criminal Justice Electives  |  15

Unrestricted Electives ¹  |  27

Total Hours  |  120

¹ Students may use their unrestricted electives to complete a minor. The student is responsible for ensuring that all of the requirements are met. Students are advised to select minors in areas that are supportive of the criminal justice field such as psychology, human development, sociology, social work, political science, economics, or foreign language. If the minor requires less than 27 credit hours the difference should be made up in unrestricted electives. If no minor is selected, the total unrestricted electives would be 27 hours. Students are advised to select electives in areas that are supportive of the criminal justice field.

### Minor in Criminal Justice

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJS 1133</td>
<td>Principles of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2413</td>
<td>Police Systems and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2513</td>
<td>Corrections: Systems and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2613</td>
<td>Court Systems and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2713</td>
<td>Juvenile Justice Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 3623</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 4923</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 4983</td>
<td>Ethical Decision-Making in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Criminal Justice Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours  | 27

### Criminal Justice with Specialization in Juvenile Justice Degree Program Requirements

#### Core Curriculum

42

#### College of Juvenile Justice and Psychology Language Requirements

6

Foreign Language Electives (One Language; One Sequence)

Select one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2003</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2613</td>
<td>Fundamental of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 4053</td>
<td>Social Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Support Area Requirements

3

Major Requirements for Criminal Justice with Juvenile Justice Specialization

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJS 1133</td>
<td>Principles of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2413</td>
<td>Police Systems and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2513</td>
<td>Corrections: Systems and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2613</td>
<td>Court Systems and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2713</td>
<td>Juvenile Justice Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2723</td>
<td>Theories and Development of Juvenile Gangs</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 2743</td>
<td>Law of Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 3623</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 3733</td>
<td>Juvenile Probation and Parole</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 3823</td>
<td>Criminal Justice Research Methods I</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 4923</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRJS 4983</td>
<td>Ethical Decision-Making in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Two Criminal Justice Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Unrestricted electives ¹  | 27

Total Hours  | 120
Admission Requirements

In addition to the general admission requirements to the Graduate School described elsewhere in the catalog, students seeking admission to the M.S. degree in juvenile justice should meet the following requirements:

- A baccalaureate degree from an accredited college or university;
- A minimum GPA of 2.75 with a GPA of 3.0 or higher preferred;
- Three signed letters of recommendation from persons in the field of the applicant's academic major or area of concentration. At least two of the letters must be from professors with personal knowledge of the candidate’s skills and potential for master’s work. Each letter must be printed on letterhead of the writer’s agency or higher education institution of employment;
- Completion of liberal arts courses at the undergraduate level such as social sciences, behavioral sciences, college algebra, and statistics;
- Completion of a 1000 word essay detailing the applicant’s reasons for pursuing the degree; and
- Original transcripts for all academic work taken at the undergraduate level.
- International students from a non-English speaking country must submit official scores from the Test of English as a Foreign Language (TOEFL) unless the student has a degree from an U.S.A. institution of higher education. A score of 79 or higher is mandatory. IELTS score is 6.0 or higher

Master of Science in Juvenile Justice Program Information

The Master of Science degree program in Juvenile Justice offers a curriculum that enables students to critically evaluate and confront the humanistic, technical, and scientific aspects of criminal justice as applicable to juvenile crime and delinquency. The MS in Juvenile Justice is a web-based, one-year program.

The primary objectives of the Master of Science degree in Juvenile Justice are to:

- Enhance students’ knowledge, skills, and resourcefulness related to detained and institutionalized juveniles in the juvenile justice system;
- Increase students’ knowledge of theoretical explanations and the etiologies of delinquency and juvenile crime;
- Assure that students engage in the humanistic, technical, and scientific aspects of delinquency and juvenile crime;
- Increase students’ knowledge concerning effective methods to intervene and prevent delinquency;
- Increase students’ skills in how to conduct research and evaluate programs related to delinquency; and
- Expand students’ knowledge of programs and policies related to delinquency.

Since there are no comparable degree programs regionally, graduates will have a unique opportunity to acquire specialized skills and competencies that should positively impact the lives of troubled youth across the state of Texas.

The MSJJ Program requires the completion of 36 semester credit hours. Two options are available for students: thesis and non-thesis. Students opting for the thesis curriculum must successfully complete 30 hours of course work in addition to 6 hours of thesis. The non-thesis option requires the successful completion of 36 hours of course work and passing a comprehensive examination. This program is web-based. Students may take six credit hours during eight week sessions, 8A and 8B for the fall and spring semesters. During the summer five week sessions a student may take six credit hours for summer I and for summer II towards completing the degree in one year. The program also requires

Transfer of Graduate Courses from Other Universities

A maximum of six (6) credits of juvenile-justice related graduate coursework may be transferred from other accredited universities. A minimum grade of “B” is required in any such courses. The transferred class must be equivalent to a course not previously taken, from the list of courses offered in the MSJJ degree program. Students should follow the process described below. Transfer course work will not be considered that will be more than six (6) years old at the time the MSJJ degree from the College of Juvenile Justice and Psychology is awarded. It is suggested that students gain transfer approval from their advisor, the Department Head, and the Dean’s office before taking the proposed transfer course. The following procedure is recommended.

1. The student gathers information/credentials about the course. Each desired transfer course must be from a regionally accredited graduate program. Information and credentials include: syllabus, course description in the catalog of the university in which the class was taken (or will be taken), or a letter from the professor stating the subject matter covered in the class. The more information provided the better.
2. The student provides his/her advisor with the information. The advisor reviews the information for adequacy. If the advisor concludes that enough information has not been gathered, the student is told what information is needed. If the class(es) is/are transferable in the opinion of the advisor, a university transfer form is completed by the advisor and forwarded to the Department Head for consideration by the Dean’s office. The transfer form
states why the course should or should not be transferred. If the advisor thinks that the course is not transferable, the student may write a letter of appeal to the Department Head.

3. The Department Head will verify the transferability of the course and recommend approval or disapproval. If disapproved, the student may appeal to the Office of the Dean of the College of Juvenile Justice and Psychology.

4. To transfer courses from the MSJFP program to the MSJJ, please refer to the MSJJ handbook.

**Continuous Enrollment and Leave of Absence**

Students in the MSJJ program who have not completed their formal course requirements are expected to enroll continuously in the program during all consecutive semesters after initial registration. Students who do not expect to be enrolled, should notify the Department Head in writing.

During a leave of absence, a student cannot make use of the University or College of Juvenile Justice and Psychology resources, nor attempt comprehensive examination nor defend a thesis.

**Good Academic Standing**

Students remain in good standing when they maintain a minimum graduate GPA of 3.0 for graded coursework. An average of “B” must be maintained by the student in all graduate coursework. While one grade of “C” may be counted towards the MS degree, only grades of “B” or better (and 3.00 GPA) indicate satisfactory completion of requirements for the degree. Only grades earned in or approved by the College of Juvenile Justice and Psychology will be used to calculate a student’s GPA. If a student receives a total of two grades of “C” in any combination of courses (required/elective), his/her graduate status is reviewed by a committee of the graduate faculty. The committee will consider the advisability of continued enrollment in the program, termination or remedial work, i.e. repeat course(s). If the student receives three grades of “C”, his/her enrollment as a graduate student is automatically terminated. Obtaining grades higher than “C” in a repeated course does not remove the original two “C” grades and will be counted against the student toward the three “C” limit. If the student receives a grade of “D” or “F” in any course, he/she is automatically dismissed from the program. In any of the above scenarios, the student may petition the graduate committee for readmission. The above requirements apply to all courses taken while enrolled in the program.

**Time Limit**

A student must complete all requirements for the MSJJ degree within six (6) consecutive calendar years after the first date of enrollment. Any exception must be petitioned to the Head of Department, the Dean of the College and the Dean of the Graduate School.

**Comprehensive Examination**

Comprehensive examinations in the MSJJ program are an elective option for those students who choose not to complete a thesis. These examinations are employed to test the student’s general knowledge and his/her ability to integrate and synthesize the wealth of information in the field. Comprehensive exams are offered three times a year which includes fall, spring and summer semesters.

**Financial Aid**

The University offers various forms of financial aid, from scholarships to work-student arrangements and loans. Scholarships are usually in very short supply. Those interested in financial aid are encouraged to visit the Financial Aid website (http://www.pvamu.edu/faid).

**Degree Program Requirements**

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JJUS 5123</td>
<td>Foundations of Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5763</td>
<td>Theories of Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5943</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5963</td>
<td>Applied Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

**Other Requirements**

Select Comprehensive or Thesis option below

- Total Hours
  - 36

**Comprehensive Examination Option**

Select eight classes from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JJUS 5113</td>
<td>Foundations of Criminal Justice</td>
</tr>
<tr>
<td>JJUS 5223</td>
<td>Substance Abuse</td>
</tr>
<tr>
<td>JJUS 5243</td>
<td>Community Building and Organizing</td>
</tr>
<tr>
<td>JJUS 5253</td>
<td>Domestic and Family Violence</td>
</tr>
<tr>
<td>JJUS 5263</td>
<td>Victimization</td>
</tr>
<tr>
<td>JJUS 5433</td>
<td>Correctional Programming</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>JJUS 5443</td>
<td>Alternatives to Incarceration</td>
</tr>
<tr>
<td>JJUS 5453</td>
<td>Law Enforcement and Juvenile Offenders</td>
</tr>
<tr>
<td>JJUS 5523</td>
<td>Management of Juvenile Justice Organizations</td>
</tr>
<tr>
<td>JJUS 5773</td>
<td>Courts and Youth Offenders</td>
</tr>
<tr>
<td>JJUS 5783</td>
<td>Ethics</td>
</tr>
<tr>
<td>JJUS 5913</td>
<td>Special Topics in Juvenile Justice</td>
</tr>
<tr>
<td>JJUS 5973</td>
<td>Policy Analysis and Program Evaluation</td>
</tr>
</tbody>
</table>

**Total Hours** 24

**Thesis Option**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JJUS 5986</td>
<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Select six classes from the following:

1. JJUS 5113: Foundations of Criminal Justice
2. JJUS 5223: Substance Abuse
3. JJUS 5243: Community Building and Organizing
4. JJUS 5253: Domestic and Family Violence
5. JJUS 5263: Victimization
6. JJUS 5433: Correctional Programming
7. JJUS 5443: Alternatives to Incarceration
8. JJUS 5453: Law Enforcement and Juvenile Offenders
9. JJUS 5523: Management of Juvenile Justice Organizations
10. JJUS 5773: Courts and Youth Offenders
11. JJUS 5783: Ethics
12. JJUS 5913: Special Topics in Juvenile Justice
13. JJUS 5973: Policy Analysis and Program Evaluation

**Total Hours** 24

1. Cross-listed courses
2. Student must complete JJUS 5963 Applied Statistics Methods & Computing within the first twelve hours of coursework.

**Doctor of Philosophy Degree in Juvenile Justice Program Information**

The goal of the Ph.D. program is to provide doctoral training in juvenile justice research. General objectives include the development of new knowledge, juvenile delinquency prevention, improvement in the juvenile justice system, and dissemination of knowledge gained. The specific intent of the program is to produce scholars with three characteristics: First, graduates will have superior empirical skills. Second, they will be specialists in the subject matter of the juvenile justice discipline. Third, they will be generalists in the subject matter of criminal justice. The program produces scholars to teach in criminal justice and criminology departments in colleges and universities and researchers to work in federal, state, and large local agencies.

**Admission Requirements**

Admission criteria for the Ph.D. Program in Juvenile Justice, as established by the Program faculty, are as follows:

**Required elements:** (In order for an application to be considered, all elements below must be present in the applicant’s file by the application deadline.)

- Baccalaureate degree conferred by a regionally accredited institution;
- Master’s degree, prior to entering doctoral course work, conferred by a regionally accredited institution;
- Official scores on the general component of the Graduate Record Examination (GRE) which consists of verbal, analytical and quantitative scores. An unofficial copy may be used by the Doctoral Admission Committee in initial screening. An application without GRE scores will not be reviewed;
- Original transcripts for all academic work taken at the undergraduate and graduate levels (unofficial copies may be used by the Doctoral Admission Committee in initial screening);
- Three signed letters of recommendation on letterhead from professors with personal knowledge of the candidate’s skills and potential for doctoral work;
- Original 1000 word essay as described in the doctoral application form and a copy of the master’s thesis or other lengthy report or paper; and
- International students from a non-English speaking country must submit official scores from the Test of English as a Foreign Language (TOEFL) unless the student has a degree from an U.S.A. institution of higher education. A score of 79 or higher is mandatory. IELTS score is 6.0 or higher.
Preferences:

- Baccalaureate degree in juvenile justice, criminal justice, or criminology. A secondary preference is a directly related social science discipline (such as sociology) in which there is evidence of the study of crime-related phenomena;
- 3.0 Grade Point Average (GPA), or higher, on a four-point scale on all completed undergraduate course work;
- Master’s degree in juvenile justice, juvenile forensic psychology, criminal justice or criminology. A secondary preference is a directly related social science discipline (such as sociology) in which there is evidence of the study of crime-related phenomena;
- 3.5 GPA, or higher, on a four-point scale in all completed graduate course work;
- Graduate research methods course (if not present, stem work must be completed);
- Graduate statistics course (if not present, stem work must be completed);
- Graduate Record Exam (GRE) verbal, quantitative and analytical scores in the higher percentiles;
- Evidence of a successfully completed master’s thesis or published research paper;
- 1000 word essay demonstrating strong writing skills; an expressed desire to teach at college level, work as researcher in a juvenile justice agency, and/or assist in developing juvenile justice policy within a governmental environment; realistic expectation of the degree’s value; evidence of commitment to completing the degree; strong rationale for wanting this specific Ph.D.; and a rationale expressing what the applicant will add to the field; and
- Signed letters of recommendation on letterhead from faculty sufficiently acquainted with the student to be able to comment on the potential to successfully complete a doctoral program and demonstrate evidence of excellent critical thought, motivation, study skills, and writing skills. Preferred ratings would be primarily excellent in all categories with an overall rating in the top 3 to 10 percent of all graduate students

Enhancing qualities:

The committee will consider the following as information that will enhance an application:

- Three or more years of paid work experience in a juvenile justice agency (law enforcement, probation/parole, or correctional institution);
- Completion of a previous doctoral degree in any field;
- College-level teaching experience, either as a part-time or full-time instructor;
- Publication(s) in academic and/or scholarly outlets, with greatest emphasis on peer-reviewed publications;
- Paid research work experience (not that involved in the production of a thesis);
- Grant-writing experience; and
- Ability to attend courses as a full-time student (requires less than full-time outside employment).

Interview:

In the event the initial committee decision is favorable, applicants must submit to an interview with the Doctoral Committee prior to final acceptance. That interview may be either in person or via the equivalent of a telephone conference call, depending upon the distance and hardship involved in a personal interview. The student may pass or fail the interview based on the criteria established by the faculty which will focus on professional promise and interpersonal competence. However, a positive qualifying score and interview do not automatically result in admission to the Ph.D. program.

Applicants will be admitted in one of two statuses: full graduate status or provisional status.

1. Full graduate status is conferred on those students admitted to the program with no conditions of admission, or who have satisfied all conditions of admission.
2. Provisional admission status is used when the Doctoral Committee perceives that prerequisites have not been met, official versions of required forms have not been received, and/or there is a question of ability to perform at doctoral standards by virtue of a failure to meet specific admissions criteria. Students who are provisionally admitted must satisfy all requirements prior to being admitted to full graduate status (conditions and requirements will be provided via letter to the student). In the event of a failure to meet prerequisites, deficiencies must be completed prior to beginning doctoral course work. No doctoral course work may be taken when there are prerequisite deficiencies nor may stem work be used to meet doctoral program requirements. Where stem work is assigned to rectify deficiencies, any grade lower than “B” will automatically result in a decision to deny admission. No more than 12 units of course work may be taken in provisional status.

It is the student’s responsibility to ensure that all conditions of admission are met in a timely fashion and to notify the Department Head when all conditions are met. Following the first semester in provisional status (non-prerequisite-deficiency cases), the Doctoral Committee will meet to consider placing the student in full graduate status. Based on the evidence at hand, the Committee may admit to full graduate status or dismiss from the program.

Students will not be accepted in courses unless they are in full graduate status or provisional status within the Juvenile Justice Doctoral Program.
Program Requirements

The program requires a minimum of 61 semester credit hours for the Ph.D. Of these hours, 43 are course work hours and 18 are dissertation hours. The Juvenile Justice Ph.D. Program has no tracks. There is a common core and students may develop a specialty by structuring their choice of substantive courses, elective courses, and dissertation topic.

Courses taken during a master's degree program may not be repeated for credit at the doctoral level.

Transfer of Graduate Courses from Other Universities

A maximum of six (6) units of juvenile-justice-related doctoral-level course work may be transferred from other accredited universities. A minimum grade of “B” is required in any such course. Transfer credit is granted by petition to, and approval by, the Doctoral Committee, with final approval by the Dean of the College. It is the student’s responsibility to initiate the petition and justify the acceptance of the course. Courses presented for transfer credit must be the equivalent of courses in the doctoral program.

Continuous Enrollment

Continuous enrollment defines the minimal level of academic activity needed to remain enrolled in the program. A Ph.D. student is considered to be continuously enrolled when he or she is enrolled for at least one course during each of the spring and fall academic semesters. Once a Ph.D. student has been admitted to candidacy he or she must enroll for a minimum of 6 hours during the 9-month academic year to be continuously enrolled. Students who fail to meet the continuous enrollment criteria will be withdrawn from the program and must apply for readmission. The sole exception is enrollment during comprehensive exams. Students taking comprehensive exams are not required to be enrolled in course work.

Residency

Students must establish course work residency before being admitted to candidacy. The residency requirement is considered to be met when a student has been continuously enrolled on campus for two consecutive semesters (excluding the summer semester).

Leaves of Absence

Graduate students who have not completed their formal course requirements are expected to enroll continuously in the program during all consecutive long semesters after initial registration. Students who do not expect to be enrolled should request a leave of absence in a letter to the Department Head for Justice Studies. A leave of absence is granted at the discretion of the Dean of the College.

This provision includes students who have completed their formal course requirements and are writing the dissertation away from the campus. During a leave of absence, a student cannot make use of the University or College of Juvenile Justice and Psychology resources, nor can a student attempt comprehensive exams or defend a dissertation.

Good Standing

Ph.D. Students remain in good standing when they maintain a minimum cumulative GPA of 3.0 for graded courses in the doctoral program. Only grades of “B” or better count toward required course work (i.e., all but the elective courses) and dissertation hours. Only grades earned in, or approved by the College of Juvenile Justice & Psychology doctoral level courses will be used to calculate a student’s GPA. Any grade lower than “B” in a required area course will require the student to retake the course and pass it with a grade of “B” or higher. While one elective grade of “C” may be counted toward the Ph.D., only grades of “B” or better indicate satisfactory completion of courses required for the Ph.D. If a student receives a total of two grades of “C,” in any combination of courses (elective/required), the student will be dismissed from the program, but may petition the Doctoral Committee for readmission. After reviewing the petition, the committee may allow readmission under such conditions as it deems appropriate. A third grade lower than “B” will result in permanent dismissal from the program with no recourse to petition.

Time Limit

A student must complete all requirements for the Ph.D. degree within seven (7) consecutive years after the first date of enrollment in the program. If transfer courses are permitted, the initial enrollment date of those courses must not exceed seven years prior to the date the degree is awarded.

Comprehensive Examination

Before they may be admitted to candidacy, students must successfully complete their doctoral examinations. These examinations are employed to test the student’s general knowledge, his or her ability to integrate and synthesize the wealth of information in the field, and his or her preparation for engaging in the kind of independent scholarship required to complete a doctoral dissertation. Comprehensive examination are offered in the fall and spring semesters. Students failing any portion of the comprehensive examinations must consult with the Department Head for Justice Studies to determine the steps to be taken. Two consecutive failures on any examination will result in the student’s dismissal from the Ph.D. program.

Advancement to Candidacy

Following successful completion of the comprehensive examinations, it is the student’s responsibility to petition for advancement to candidacy. To be advanced to candidacy, students must have completed all of the following requirements and/or procedures:
1. Achieved a cumulative grade-point average no lower than 3.0 in program course work and a minimum grade of “B” (3.0) in all required area courses.
2. Completed all program course work with no more than one grade lower than “B” (unless the student successfully petitions his or her dismissal and retakes a second “C” course with a grade of “B” or higher).
3. Successfully passed all comprehensive examinations.

Following approval of the student’s application to candidacy, the student may enroll in Dissertation hours.

Students admitted to candidacy are required to accumulate a minimum of 6 credit hours during each twelve month period following admission to candidacy and until such time as the degree is granted. Further, a student must be enrolled for a minimum of 3 dissertation hours during any semester in which University resources are used. Assistantship students must continue to meet the enrollment criteria for maintaining their assistantship. Any exception to this policy requires the approval of the Head of the Department and the Dean of the College of Juvenile Justice & Psychology. Students who fail to enroll for the appropriate number of hours following advancement to candidacy shall be placed on probation. To be removed from probation, the student must enroll for the deficient number of credits plus three additional credits in the next semester. Students who do not meet these requirements will be dismissed from the doctoral program and required to reapply for admission, subject to any new admissions criteria in effect at the time of readmission.

Dissertation

Following approval of the student’s application to candidacy, the student may enroll in dissertation hours. Two attempts at passing both the dissertation prospectus defense and the dissertation defense are permitted. Having met other requirements for the degree, students who successfully defend their dissertations and complete the submission process are granted the degree of Doctor of Philosophy at the commencement ceremony immediately following. Failure to pass either the dissertation prospectus defense or the dissertation defense will result in the student’s dismissal from the program.

The determination of completion requirements for the Doctor of Philosophy degree in Juvenile Justice is solely the province of the program faculty.

The Dissertation Committee

Students must choose a Dissertation Committee of four faculty. Three of the members are to be chosen from the faculty of the College of Juvenile Justice & Psychology, one of whom will be the chair. The Chair must be a graduate faculty member in the Justice Studies Department. A fourth committee member is chosen from faculty at Prairie View A&M University but outside the College. If special expertise is needed, the outside member may be from amongst The Texas A&M University System (TAMUS) graduate faculty. Only in the rarest of cases when expertise cannot be found at Prairie View A&M University, nor within TAMUS may students select graduate faculty from another accredited institution outside of TAMUS. This is done in consultation with the Department Head and the Chair of the student’s Advisory Committee. A letter requesting approval of the proposed committee must be forwarded to the Department Head. No committee may be constituted without the Department Head’s formal approval. The members of the committee are normally chosen for their expertise in the proposed topic or for expertise in a particular methodology. All voting members of the committee must be on the graduate faculty. Other members may be added to the committee in a non-voting status if the committee chair and the Department Head’s concur. Faculty who have not published juvenile justice or criminal justice-related materials within the past five years may only be added to the committee in a non-voting status.

Financial Assistance

The University offers various forms of financial aid, from scholarships to work-study arrangements and loans. Scholarships are usually in very short supply. Those interested in financial aid are encouraged to visit the Financial Aid website (http://www.pvamu.edu/faid).

Pending yearly budgetary allocation, the College of Juvenile Justice & Psychology will normally have two forms of financial aid available: (1) graduate assistantships (usually requiring 20 hours of work a week) for up to 10 individuals and (2) research assistants supported by externally-funded grants. All teaching and research assistantships in excess of $1,000 carry a waiver of out-of-state tuition fees. For information on these opportunities, contact the Department Head or individual faculty in charge of various grants.

Assistantships will be competitively awarded to full-time students only. Half assistantships may also be awarded at the discretion of the Doctoral Committee and the Dean. All full-time applicants admitted to the program should apply to be considered for assistantships by the Doctoral Committee. These assistantships will normally be awarded for a period of one academic year (nine months) and may be renewed for a second year (nine months). For newly admitted doctoral students who show exceptional potential to successfully complete the program, the doctoral committee might make a recommendation that the assistantship be extended for a third year. The students recommended for third year assistantships must demonstrate evidence of excellence in the following areas: excellent research and writing skills, excellent commitment to the discipline, excellent critical thought, exceptional personal commitment and motivation to complete the degree, evidence of overall strong faculty recommendation rating the student as top 3% or top 5% of all currently enrolled doctoral students. Assignments most likely will include teaching and/or teaching support, research/research support, and/or editorial duties.

Award criteria for assistantships are similar to admission criteria. Those who are admitted under full-time status will be ranked by the Committee based on their Graduate GPA, GRE scores, and additional evidence of preparation for the discipline (see Doctoral Policy 3 for specific details). Third year assistantships will include the above criteria and other criteria the faculty deems appropriate. Other forms of award other than student loans also will be taken into consideration in the awarding of assistantships. The Committee will award assistantships based on ranking and the available number of assistantships.
In order to maintain an assistantship the following are necessary:

- Continuing full-time enrollment (9–12 hours)
- Doctoral Grade Point Average above “B”
- Satisfactory evaluation by the supervising professor
- Satisfactory progress evaluation by the Doctoral Committee
- Indications of professional potential such as teaching and research

In the event of a failure to meet one of these areas, the Doctoral Committee may decide to continue the assistantship, predicated on the student’s acceptance of appropriate remedial activity.

If a student receiving compensation for an assistantship of 20 hours a week decides to seek either full-time or part-time employment elsewhere, that fact shall be made known in writing to the Doctoral Coordinator. In general, full-time employment constitutes grounds for automatic termination of assistantship and/or scholarship awards. Part-time employment will be considered on an individual basis, but normally will be discouraged.

### Degree Program Requirements

#### Prerequisite Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>JJUS 5123</td>
<td>Foundations of Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5763</td>
<td>Theories of Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5943</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5963</td>
<td>Applied Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
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#### Required Support Courses

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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>JJUS 7651</td>
<td>Seminar in Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7943</td>
<td>Advanced Research Methods I</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 7953</td>
<td>Advanced Research Methods II</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 7963</td>
<td>Advanced Statistical Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 7973</td>
<td>Advanced Statistical Techniques II</td>
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#### Required Substantive Courses in Juvenile Justice

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>JJUS 7113</td>
<td>Juv Just Issu Pract</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>select 6 additional credit hours from the list of courses below:</strong></td>
<td>6</td>
</tr>
<tr>
<td>JJUS 7633</td>
<td>Comparative Juvenile Justice Systems: A Cross Cultural Perspective</td>
<td></td>
</tr>
<tr>
<td>JJUS 7653</td>
<td>Seminar on Juvenile Corrections</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7743</td>
<td>Race, Ethnicity, Gender and Juvenile Justice</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7763</td>
<td>Seminar on Juvenile Processing by Police and Courts</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7783</td>
<td>Legal Aspects of Juvenile Justice</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7863</td>
<td>Policy Analysis and Program Evaluation</td>
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#### Required Delinquency Theory Courses

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>JJUS 7673</td>
<td>The Juvenile Offender and Youth Gangs</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 7873</td>
<td>Advanced Seminar in Crime and Delinquency Theory</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 7883</td>
<td>Youth Victimization</td>
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#### Elective Courses

Select four of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JJUS 7633</td>
<td>Comparative Juvenile Justice Systems: A Cross Cultural Perspective</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7643</td>
<td>Management and Administration</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7653</td>
<td>Seminar on Juvenile Corrections</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7663</td>
<td>Drugs, Youth and Society</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7693</td>
<td>Qualitative Methods in Social Sciences</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7743</td>
<td>Race, Ethnicity, Gender and Juvenile Justice</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7713</td>
<td>Special Topics in Juvenile Justice</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7763</td>
<td>Seminar on Juvenile Processing by Police and Courts</td>
<td>1</td>
</tr>
<tr>
<td>JJUS 7783</td>
<td>Legal Aspects of Juvenile Justice</td>
<td>1</td>
</tr>
</tbody>
</table>
Honor Societies, Clubs and Service Organizations

**Alpha Phi Sigma - National Honor Society in Criminal Justice**. The Honor Society was created to recognize scholarship among students of Criminal Justice and provide them with opportunities to attend various conferences sponsored by the national organization. Students are also provided information about opportunities in careers in Criminal Justice as well as educational opportunities in graduate and professional schools.

**National Association of Blacks in Criminal Justice - Student Division**. This is a national organization of Criminal Justice Professionals who provide its members with current information about the field of Criminal Justice. The Prairie View Chapter provides its members with opportunities to attend various conferences sponsored by the national organization and regional chapters. Students also have access to career counseling and information about career opportunities with various federal, state, and local agencies.

**The Criminal Justice Club**. This organization is open to any student majoring or minoring in Criminal Justice at this institution. The primary purpose of the organization is to provide its members with information about career opportunities and graduate and professional educational opportunities in the field. They also provide a forum for various recruiters to speak to its members and they also take field trips to area criminal justice agencies to observe and speak with professionals.


The Undergraduate Certificate can be taken independently of other degree programs or, as part of a degree program and does not require full enrollment in the university. All students in the certificate program receive full Prairie View A&M University course credit that can later be applied toward a degree.

This program is designed to introduce students to the homeland security enterprise and emergency management. Students will learn about the creation of the Department of Homeland Security, its goals and the knowledge and skills necessary for effective emergency management. Students will have the opportunity to select electives to complete the program that will allow them to explore homeland security and emergency management within their major or other focus area. Students must take at least one upper level course to complete the certificate. A project that brings the relevant knowledge together is required to complete the program. This certificate program addresses the workforce need for diversity in homeland security and emergency management by exposing students to these two career areas. It is also designed to serve the land grant mission of the university by responding to community needs with particular attention to rural communities.

**OBJECTIVES**

- To have awareness of the varied aspects of work in homeland security
- To have awareness of the nature of work in emergency management
- To understand the applicability of homeland security and emergency management to the student’s major or focus area
- To be able to contribute to efficacious homeland security and emergency management operations

The certificate includes six credits of required courses, six hours of electives courses from the options indicated and, a social responsibility (civic engagement) project. The project may be completed in conjunction with any of the courses for the certificate as pre-approved by the certificate administrator in the College of Juvenile Justice and Psychology. Pre-approval of the electives will require a review of the syllabus to be used for relevant content. Typically, the required project will begin during enrollment in CRJS 2483 but may not be completed until the final course is taken for the certificate. The project must have real world applicability. As such, it will be completed with consultation involving relevant persons in the targeted community, government, business or private entity. This effort might be coordinated with assistance from the university’s Office of Student Affairs (therein, the service learning/volunteer coordination office), and, or Texas A&M University – College Station. A typical project would be the creation of a disaster response plan, a disaster mitigation plan, a homeland security research paper or participation in a day long simulation exercise with a paper requirement.

**REQUIRED**
CRJS 2443 Introduction to Homeland Security (required)

CRJS 2483 Introduction to Emergency Management (required)

CRJS 2483 Introduction to Emergency Management: 3 SCH This course presents the theories, principles, and approaches to managing both natural and man-made emergencies. The philosophy of Comprehensive Emergency Management will be discussed with the four attendant steps which include mitigation, preparedness, response, and recovery. An analysis of past disasters will be presented along with their impacts on policy formation leading up to the current FEMA all-hazards approach. The role, duties, and importance of the Emergency Manager will be discussed. Finally, legal issues involving emergency management will be presented.

CRJS 2443 Introduction to Homeland Security: 3 SCH The course will introduce students to the history of the Department of Homeland Security as a federal entity and homeland security as an area of study in the United States. It will include major research and theoretical perspectives that have resulted in significant initiatives to keep persons in the United States safe from various threats.

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Electives *(at least one course must be an upper level course):

**Recommended for Psychology Majors**

PSYC 2513 Personality: 3 semester hours.

Personality theories, major concepts, methods and problems in the field of psychology. Analysis of theories of personality, with emphasis on personality development in the normal population. Evaluation of theories in the field of psychology. The development of personality as a pattern of strivings manifested in interpersonal relations. The coverage of constitutional, psychological, social and cultural factors in the development and adjustment of the normal individual. ***(PSYC 2316)**Transfer equivalent from Texas Community/Junior Colleges

PSYC 3713 Psychology of Terrorism

This course is designed to assist students in becoming more aware of factors that may contribute to the development of terroristic attitudes and behaviors. Students will learn how to define terrorism and distinguish different kinds of terroristic groups, which include juvenile terrorist groups, racial supremacists groups, and foreign terrorist groups. Students will learn about environmental, cultural, familial factors related to terroristic activity.

**Recommended for Criminal Justice Majors**

CRJS 2113 Intro Geog Info Sys: 3 semester hours.

An introduction to the fundamentals of Geographic Information System (GIS) and science and art of making maps. The course introduces students to the basic principles of using GIS as tool for managing and analyzing spatial data.

CRJS 2453 Introduction to Terrorism: 3 semester hours.

The study of the history and development of terrorism the various types of terrorism, including narcoterrorism, religious terrorism, state-sponsored terrorism and domestic terrorism. Emphasis will be placed on counter-terrorism program

CRJS 2813 Computer Applications in Criminal Justice: 3 semester hours.

An introduction to the interface necessary for functioning effectively in various areas of criminal justice. The course also examines how the use of computers and related technology has changed the process of maintaining law and order nationally and internationally. It includes a review of social engineering techniques (ways that people might enhance personal and institutional security) and the field of computer forensics

CRJS 3463 Transnational Crimes: 3 semester hours.

The study of criminal behavior that transcends traditional national boundaries. The course will focus on the origins of these types of crimes and the efforts of law enforcement to address them. Cyber-terrorism, cyber-crimes, human trafficking, drug trafficking and patrimonial crimes will be reviewed

CRJS 3673 International and Federal Criminal Law: 3 semester hours.

The study of the origin purpose of international laws related to homeland security and terrorism and federal criminal law including crimes against persons, property crimes, principles, defenses and a comparison with state criminal law including the Texas Penal Code

CRJS 4323 Criminal Justice Management Principles: 3 semester hours.

A study of basic criminal justice management theories and contemporary practices. This includes an examination of the unique behaviors, social skills and organizational techniques necessary for the criminal justice professional to be successful in various settings. Special attention is given to relating effectively with superiors, colleagues, subordinates and various members of the public impacted by criminal justice agencies

CRJS 4416 Undergraduate Internship in Criminal Justice: 6 semester hours.

A student may be required to satisfactorily complete a minimum of three month's internship in an approved criminal justice setting preferably between the junior and senior year. This internship program is specifically designed to acquaint the student with practical aspects of criminal justice

**Recommended for Chemistry Majors**

CHEM 1042 General Inorganic Chemistry Laboratory: 2 semester hours.

For students majoring or minoring in chemistry. A continuation of CHEM 1032 (http://catalog.pvamu.edu/universitycourses/chem). General laboratory course covering aspects of volumetric, gravimetric and qualitative analyses; determination of chemical and physical properties, and chemical synthesis. Prerequisite: MATH 1113 (http://catalog.pvamu.edu/universitycourses/chem), Co-requisite: CHEM 1043 (http://catalog.pvamu.edu/universitycourses/chem)

CHEM 1043 General Inorganic Chemistry: 3 semester hours.

For students majoring or minoring in chemistry. A continuation of CHEM 1033 (http://catalog.pvamu.edu/universitycourses/chem). Bonding theory and molecular structure, intermolecular forces properties of solutions, chemical kinetics, chemical equilibrium, acid-based equilibria, thermodynamics,
electrochemistry and nuclear chemistry and introduction to organic chemistry. Prerequisites: MATH 1113 (http://catalog.pvamu.edu/universitycourses/chem), CHEM 1033 (http://catalog.pvamu.edu/universitycourses/chem). **(CHEM 1412) **Transfer equivalent from Texas Community/Junior Colleges

**CHEM 2043 General Organic Chemistry II: 3 semester hours.**
For chemistry majors and minors, chemical engineering, and science majors. A continuation of CHEM 2033 (http://catalog.pvamu.edu/universitycourses/chem). Substitution and elimination reactions, spectroscopic identification of organic compounds, reactions of substituted benzenes, reactions of carbonyl compounds, biorganic compounds and special topics in organic chemistry. Prerequisite: CHEM 2033 (http://catalog.pvamu.edu/universitycourses/chem)

**CHEM 3023 Special Topics in Chemistry w/revolving themes forensic science/emerging areas of interests in Chem: 3 semester hours.**
Special Topics in Chemistry with revolving themes around forensic science and emerging areas of interests in Chemistry and Technology. Prerequisite: CHEM 2043 (http://catalog.pvamu.edu/universitycourses/chem) or Departmental approval

**Recommended for Engineering Majors**

**COMP 1013 Introduction to Computer Science: 3 semester hours.**
Fundamentals of computer science and programming to include algorithm definition, concepts, semantics and logic, fundamental data types (character, integer, and floating-point) and their binary representations and limits, arithmetic and logical operators and precedence, program structure and flow, branching and looping, functions and parameters, and basic input and output methods, emphasizing modular design and implementation of an object-oriented language such as C++

**COMP 4123 Computer Networks: 3 semester hours.**
Introduction to the networking of computer systems to include the study of local area (LAN) and wide area (WAN) networks, data transmission, communications software, the architecture of networks, and network communication protocols. Prerequisite: COMP 3063 (http://catalog.pvamu.edu/universitycourses/comp)

**CVEG 3043 Environmental Engineering: 3 semester hours.**
Review of the environmental chemistry and biology, introduction to environmental science and engineering, material balance, reaction kinetics, reactor design, introduction to solid and hazardous waste, water and wastewater quality characteristics, laboratory analysis of water and wastewater samples. Prerequisites: CHEM 1021 (http://catalog.pvamu.edu/universitycourses/cveg), CHEM 1034 (http://catalog.pvamu.edu/universitycourses/cveg) and MCEG 2013 (http://catalog.pvamu.edu/universitycourses/cveg)

**Recommended for Business (and related) Majors**

**MISY 2013 Fundamentals of MIS: 3 semester hours.**
The course provides a solid foundation in MIS concepts and theory and gives exposure to current technologies being used in business today. The emphasis is on understanding how information systems are used by managers and professionals to improve organizational performance, teamwork, and productivity. Topics covered include telecommunication, networking, enterprise systems, IT security, and emerging technologies. Prerequisite: MISY 1013 (http://catalog.pvamu.edu/universitycourses/misy) or equivalent

**MISY 4452: Special Topics in MIS: 3 semester credit hours.**
Topics include network/cyber attacks and defense, system threats and risk. Identifying the threats against network infrastructures and building defensible networks that minimize the impact of attacks; tools that can be used to analyze a network to both prevent and detect the adversary; decode and analyze packets using various tools to identify anomalies and improve network defenses; perform penetration testing against an organization to determine vulnerabilities and points of compromise; creating and running incident handling capability; tools to identify and remediate malware across organizations; data classification program used to deploy data loss prevention solutions at both host and network level; disaster recovery and policy implementation.

**Recommended for Management Majors**

**MGMT 1013 Introduction to Business: 3 semester hours.**
An overview of business operations and the role of business in modern society. Topics of current interest to the business community will be introduced

**MGMT 3103 Principles of Management: 3 semester hours.**
Fundamentals of organization and administration. Planning, organizing, directing, coordinating, and controlling business activities. Goal setting: models for thinking about organizations; organizational design; information systems; models for understanding individual behavior; job performance and job satisfaction; motivation and leadership; behavior in work groups and careers in business. Prerequisite: MGMT 1013 (http://catalog.pvamu.edu/universitycourses/mgmt), and junior/senior classification

**Recommended for Political Science Majors**

**POSC 2123 Public Administration: 3 semester hours.**
This course provides an examination of the organization, responsibility, personnel management, fiscal processes, functions, and problems of public administration. **(GOVT 2335) **Transfer equivalent from Texas Community/Junior Colleges

**POSC 2503 Global Issues: 3 semester hours.**
Selected issues facing the global community are examined. Issues include hunger, energy, population, war and racism. The course has interdisciplinary and cross-cultural focus

**POSC 2543 State and Local Government: 3 semester hours.**
Analysis of state and local governments in the federal system; encompasses an examination of the state and local politics in the United States with an emphasis on politics and public policy

**POSC 3513 Comparative Politics: 3 semester hours.**
Examines the dynamics of Comparative Politics from the perspective of globalization characterized by the world's increasing interconnectedness, particularly in regards to politics, economics, communication and cultures. Provides a comprehensive analysis of nations encompassing histories, societies, politics and economics. Examines contemporary nations in the context of current trends, including modernization, democracy, the environment, human rights, terrorism, security and globalization. Explores symbolic countries in case studies
POSC 3523 Comparative Politics of Developing States: 3 semester hours.
The course examines political processes in the developing nations of Africa, Asia, and Latin America, with particular attention to the problems of political integration and nation building

POSC 3533 U.S. Foreign Policy: 3 semester hours.
This is a study of the American foreign policy, including the objectives, capabilities and formulation process

POSC 3543 International Politics: 3 semester hours.
The basic problems of international politics, focusing on the power competition among states and other transnational institutions, are the major focus of this course. (Required for all majors and minors)

POSC 3553 African Politics: 3 semester hours.
This is an introductory course in the political history and development of African states

POSC 3593 Middle East Politics: 3 semester hours.
This course makes a comprehensive study of the major issues and dilemmas in contemporary Middle Eastern politics, including the clash of religions and nationalisms, security and stability in the Persian Gulf, the Arab-Israeli conflict, efforts at democratization, and the role of women

POSC 4103 Urban Government and Politics: 3 semester hours.
This course examines the structure and functions of urban government. Considerable attention is given to the politics and current problems of metropolitan areas

For Social Work Majors

SOWK 2133 Social Work with Children and Families: 3 semester hours.
Examination of social and cultural constructs of childhood including history and development of child welfare services; childhood developmental stages; social policy relevant to children, families and their well-being; assessment, intervention and direct services for children and families

SOWK 2173 Multicultural Issues in Mental Health: 3 semester hours.
Exploration of the etiology and treatment modalities for addressing mental health issues with culturally diverse populations including African American, Hispanic American, and Asian American

SOWK 3213 Human and Cultural Diversity Social Work: 3 semester hours.
Acquisition and application of methods, theories, and skills sensitive to a wide variety of human differences for competent social work practice with diverse populations. Effects of prejudice, discrimination, and stereotyping at individual and institutional levels. Advocacy for social and economic justice specific to race, ethnicity, gender, age, religion, disability, social class, nationality, and sexual orientation

SOWK 4176 Field Practicum: 6 semester hours.
Supervised learning experience involving field-based placement in social service agency. Integration of theory and practice. All required social work foundation courses must be completed before entering practicum. Co-requisite: SOWK 4183 (http://catalog.pvamu.edu/universitycourses/sowk)

SOWK 4343 Generalist Crisis Intervention: 3 semester hours.
This course makes a comprehensive study of the major issues and dilemmas in contemporary Middle Eastern politics, including the clash of religions and nationalisms, security and stability in the Persian Gulf, the Arab-Israeli conflict, efforts at democratization, and the role of women

For any major

GEOG 2113 Introduction to Geographic Information System: 3 semester hours.
An introduction to the fundamentals of Geographic Information System (GIS) and science and art of making maps. The course introduces students to the basic principles of using GIS as tool for managing and analyzing spatial data

GEOG 2633 Cultural Geography: 3 semester hours.
Economic, social, and political adjustments that man makes to various habitats and to natural environment factors

GEOG 3733 Political Geography: 3 semester hours.
This course examines the influence which the natural environment has on the evolution of cultures, the establishment of political boundaries and political systems and on the nature of international trade and politics

Recommended for Business Majors (* at least one upper level course below)

ECON 2123 Principles of Macroeconomics: 3 semester hours.
Analysis of the principles and problems of money and banking, national income, public finance, international trade, and economic growth. **(ECON 2301) ** Transfer equivalent from Texas Community/Junior Colleges

ECON 2113 Principles of Microeconomics: 3 semester hours.
Analysis of the principles and problems of production and distribution, market structure, business enterprise, and comparative economic systems. **(ECON 2302) Prerequisite: Pass all sections of THEA. ** Transfer equivalent from Texas Community/Junior Colleges

ECON 4343 International Trade: 3 semester hours.
Principles and practices of foreign trade with special emphasis on international economic relations. Analysis of foreign exchange, balance of payments, foreign investment, tariff history and policy, and currency problems. Prerequisite: ECON 2123 (http://catalog.pvamu.edu/universitycourses/econ), ECON 2113 (http://catalog.pvamu.edu/universitycourses/econ) and junior/senior classification

FINA 4303 Money and Banking: 3 semester hours.
Covers a wide spectrum of topics and issues in banking and finance, including the role and nature of money in the economy, bank management, technological innovations and the practice of banking, creation and regulation of the money supply and the institutions involved, monetary policies and the role of the Federal Reserve and Treasury Department. Prerequisite: ECON 2123 (http://catalog.pvamu.edu/universitycourses/fina) and junior/senior classification. Cross-listed as ECON 4303 (http://catalog.pvamu.edu/universitycourses/fina)

Recommended for Food Science students
GEOG/CRJS 2113 Introduction to Geographic Information System: 3 semester hours.
An introduction to the fundamentals of Geographic Information System (GIS) and science and art of making maps. The course introduces students to the basic principles of using GIS as tool for managing and analyzing spatial data

FDSC 3583 Food Quality Assurance and Sanitation: 3 semester hours.
Examination of the elements of a comprehensive quality assurance program. Areas of study include sanitation, pest control, waste disposal, food law regulations, sensory testing, panel selection and training, and experimental design and analysis of data. Prerequisite: Junior standing. Laboratory fee: $15.00

FDSC 3593 Food Bacteriology: 3 semester hours.
Microbiology of human foods and accessory substances. Raw and processed foods, physical, chemical and biological phases of spoilage. Standard industry techniques of inspection and control. Laboratory fee: $15.00

Recommended for Nursing Majors
NURS 4173 Community Health Nursing: 3 semester hours.
This theory course focuses on the synthesis of public health concepts within a preventive framework to promote and maintain the health of communities.roll process is used in community assessment, risk identification and application of community health nursing strategies. Prerequisite: NURS 3004, NURS 4163 (http://catalog.pvamu.edu/universitycourses/nurs), NURS 4183 (http://catalog.pvamu.edu/universitycourses/nurs). Co-requisite: NURS 4272 (http://catalog.pvamu.edu/universitycourses/nurs)

NURS 4323 Introduction to Disaster/Emergency Preparedness and Response: 3 semester hours.
This course provides a foundation in the principles of disaster planning and management from a disaster team perspective. The roles of different members of the disaster team are examined with a focus on the role of the nurse. Various classifications of disasters, including natural and human-made disasters, are identified and defined and various biological, chemical and nuclear agents are discussed. Nursing care of physical injuries and psychological/behavior manifestations of disaster victims and workers involved in natural and man-made disasters are highlighted. Consent of Instructor. Elective.

Department of Psychology

The Department of Psychology offers undergraduate courses leading to the Bachelor of Science (BS) degree in Psychology. The Psychology curriculum is designed to expose students to various areas of specializations in psychology, such as clinical, cultural, developmental, experimental, industrial/organizational, and social. Students are closely advised to help them make knowledgeable decisions regarding their professional direction. Particular focus is placed on developing the student’s research and analytical skills while developing understanding of cultural influence in psychology. The rigorous nature of this program will prepare students to become competitive for entry into graduate school or various professional career paths.

The Master of Science (MS) degree in Juvenile Forensic Psychology is a unique program in the State of Texas, and probably the only degree of its kind in the world. Its creation is in keeping with the intent of the timely and insightful action of the Texas Legislature in its determination to focus on children in the creation of the Texas Juvenile Crime Prevention Center at Prairie View A&M University. Students in the graduate program of Juvenile Forensic Psychology at Prairie View A&M University will study psychological theories of behavior, misbehavior, and deviance.

The Doctorate of Philosophy (PhD) in Clinical Adolescent Psychology offers education and training that will emphasize the scientist/practitioner model in areas of clinical service delivery, teaching and research in clinical psychology. The academic course work, clinical practica and other educational and training experiences will support acquisition and application of knowledge in a broad range of theoretical intervention models, clinical and research skills, and professional roles that can prepare students for current and future practice of psychology.

The interdisciplinary curriculum is organized around competency areas fundamental to the practice of psychology, including theories of cognitive and personality development, neuropsychological mechanisms associated with behavior, development of professional relationships, cognitive/academic and personality assessment, empirically-based intervention models, as well as research and statistical methods. Attention to issues of cultural and individual diversity is an integral part of this curriculum. Each student will be evaluated throughout his/her program of study to determine demonstration of targeted competencies as they proceed through course work and clinical practica training.

Instructional Organization

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>BS</td>
</tr>
<tr>
<td>Juvenile Forensic Psychology</td>
<td>MS</td>
</tr>
<tr>
<td>Clinical Adolescent Psychology</td>
<td>PhD</td>
</tr>
</tbody>
</table>

Departmental Requirements

Only courses passed with grades of "C" or higher may be applied to hours constituting major requirements and psychology electives.

Psychology Degree Program Requirements

University Core Curriculum 1 42

College Requirement 6

Foreign Language (must take 6 hours in the same language; must complete two semesters to satisfy the language requirement)
### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC 1113</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2423</td>
<td>Developmental Psyc</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2513</td>
<td>Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3223</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3433</td>
<td>Experimental Psyc</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3533</td>
<td>Socio Cult Psyc</td>
<td>3</td>
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<tr>
<td>PSYC 3543</td>
<td>Hist Sys Psyc</td>
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</tr>
<tr>
<td>PSYC 3613</td>
<td>Stat For Psyc II</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4443</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4613</td>
<td>Physiological Psyc</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4843</td>
<td>Senior Paper</td>
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</table>

### Psychology Electives in Psychology

Select six (6) of the following: 18

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 3233</td>
<td>Testing</td>
<td></td>
</tr>
<tr>
<td>PSYC 3313</td>
<td>Psychology of Learning</td>
<td></td>
</tr>
<tr>
<td>PSYC 3323</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 3513</td>
<td>Human Diversity</td>
<td></td>
</tr>
<tr>
<td>PSYC 3603</td>
<td>Health Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 3703</td>
<td>Introduction to Forensic Psyc</td>
<td></td>
</tr>
<tr>
<td>PSYC 3713</td>
<td>Psychology of Terrorism</td>
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<td>PSYC 3913</td>
<td>Indust Org Psyc</td>
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<td>PSYC 4513</td>
<td>Cognitive Psyc</td>
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<tr>
<td>PSYC 4253</td>
<td>Clinical Psych</td>
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<td>PSYC 4333</td>
<td>Special Topics in Psychology</td>
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<tr>
<td>PSYC 4411</td>
<td>Psychology Internship Supervision</td>
<td>2</td>
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<tr>
<td>PSYC 4413</td>
<td>Psychology Internship</td>
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<tr>
<td>PSYC 4633</td>
<td>Sensation Perception</td>
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<td>PSYC 4823</td>
<td>Reading &amp; Research</td>
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<tr>
<td>PSYC 4913</td>
<td>Psychology Research</td>
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### Support Area Requirements

<table>
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<tr>
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<tbody>
<tr>
<td>BIOL 1054</td>
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</table>

### Unrestricted Electives

17

### Total Requirements to Graduate

Total Hours 120

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>University Core Curriculum Requirement</td>
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<tr>
<td>College Requirement</td>
<td>6</td>
</tr>
<tr>
<td>Major Requirements</td>
<td>33</td>
</tr>
<tr>
<td>Psychology Electives in Psychology</td>
<td>18</td>
</tr>
<tr>
<td>Support Area Requirement</td>
<td>4</td>
</tr>
<tr>
<td>Unrestricted Electives</td>
<td>17</td>
</tr>
</tbody>
</table>

1. PSYC 2613, one of the Mathematics core options, is a required course for all Psychology majors.
2. Courses may be repeated for academic credit totaling six (6) credit hours.

### Minor in Psychology

Each student is responsible for ensuring that all of the minor requirements of 21 credit hours are met. Only courses passed with grades of "C" or higher may be applied to hours constituting minor electives for psychology.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1113</td>
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</tr>
<tr>
<td>PSYC 2423</td>
<td>Developmental Psyc</td>
<td>3</td>
</tr>
</tbody>
</table>
Admission Requirements

In addition to the general admission requirements to the Graduate School described elsewhere in the catalog, students seeking admission to the M.S. degrees in Juvenile Forensic Psychology should meet the following requirements:

• A baccalaureate degree from an accredited college or university;
• A minimum GPA of 2.75 with a GPA of 3.0 or higher preferred;
• Three signed letters of recommendation from persons in the field of the applicant’s academic major or area of concentration. At least two of the letters must be from professors with personal knowledge of the candidate’s skills and potential for master’s work. Each letter must be printed on letterhead of the writer’s agency or higher education institution of employment;
• Official scores on the general component of the Graduate Record Examination (GRE) which consists of verbal, analytical and quantitative scores. An unofficial copy may be used by the Master’s Admission Committee in initial screening;
• Completion of liberal arts courses at the undergraduate level such as social sciences, behavioral sciences, college algebra, and statistics;
• Completion of a 1000 word essay detailing the applicant’s reasons for pursuing the degree; and
• Original transcripts for all academic work taken at the undergraduate level.

International students from a non-English speaking country must submit official scores from the Test of English as a Foreign Language (TOEFL) unless the student has a degree from a U.S. institution of higher education.

Program areas may establish additional admission requirements, for example required prerequisites for Juvenile Forensic Psychology are General Psychology, Personality, Abnormal Psychology, Statistics, Developmental and Research Methods.

Master of Science in Juvenile Forensic Psychology Program Information

The primary objectives of the Master of Science degree in Juvenile Forensic Psychology are to:

• Enhance students’ knowledge of how psychology interacts with the law and the legal system;
• Increase students’ knowledge of theoretical explanations of juvenile delinquency, juvenile crime, and juvenile aggression, especially from the viewpoint of psychological theories;
• Provide students with skills in research methodology and statistics;
• Enhance students’ knowledge of the cognitive and personality development of youth especially as it pertains to aggression in various stages;
• Enhance students’ knowledge of the psychological dynamics of family violence such as child abuse, spouse abuse, incest, and other forms of inter-familial violence;
• Provide students with knowledge and skills pertaining to the assessment, classification, and treatment of juvenile offenders; and
• Provide students with skills in psychological assessment and evaluation.

The MSJFP Program requires the completion of 36 semester credit hours. Two options are available: thesis and externship. The thesis option is designed for students interested in research and a Ph.D. The externship option is designed for students who desire to work in the field of forensic psychology.

Transfer of Graduate Courses from Other Universities

A maximum of six (6) credits of psychology-related graduate coursework may be transferred from other accredited universities. A minimum grade of “B” is required in any such courses. The transferred class must be equivalent to a course not previously taken, from the list of courses offered in the MSJFP degree program. Transfer course work will not be considered that is more than six (6) years old at the time the MSJFP degree from the College of Juvenile Justice and Psychology is awarded. The student must gain transfer approval from their advisor, the Department Head, and the Dean’s office before taking the proposed transfer course. To transfer courses from the MSJJ program to the MSJFP, please refer to the MSJFP handbook.

The following procedure is recommended:

1. Gather all information and credentials about the course. Each desired transfer course must be from a regionally accredited graduate program. Information and credentials include: syllabus, course description in the catalogue of the university where the class was taken (or will be taken), or a letter from the professor stating the subject matter covered in the class. The more information provided the better.
2. The student provides his/her advisor with the information. The advisor reviews the information for adequacy. If the advisor feels that enough information has not been gathered, the student is told what information is needed. If the class(es) is/are transferable in the opinion of the advisor, a university transfer form will be completed by the advisor and forwarded to the Department Head for consideration by the Dean’s office. The transfer
form states why the course should or should not be transferred. If the advisor feels that the course is not transferable, the student may write a letter of appeal to the Department Head.

3. The Department Head will verify the transferability of the course and recommend approval or disapproval to the Dean of College. If disapproved, the student may appeal to the Graduate School.

Leave of Absence

Students in the MSJFP program who have not completed their formal course requirements are expected to enroll continuously in the program during all consecutive long semesters after initial registration. Students who do not expect to be enrolled should notify the Department Head in writing.

During a leave of absence, a student cannot make use of the University or College of Juvenile Justice and Psychology resources, nor can a student attempt comprehensive exams or defend a thesis.

Good Academic Standing

Students remain in good standing when they maintain a minimum graduate GPA of 3.0 for graded coursework. An average of “B” must be maintained by the student in all graduate coursework. Only grades earned in the College of Juvenile Justice and Psychology will be used to calculate a student’s GPA. If a student receives a total of two grades of “C” in any combination of courses, his/her graduate status is reviewed by a committee of the graduate faculty. The committee will consider the advisability of continued enrollment in the program, termination or remedial work. Any grade lower than “B” in a required core course will require the student to retake the course and pass it with a grade of “B” or higher. If the student receives three grades of “C”, their work as a graduate student is automatically terminated. Obtaining grades higher than “C” in a repeated course does not remove the original two “C” grades and will be counted against the student toward the three “C” limit. If the student receives a grade of “D” or “F” in any course, he/she is automatically dismissed from the program. In any of the above scenarios, the student may appeal to Department Head for a review. Although appeals are handled in a timely manner it is likely that a final decision on an appeal may occur during a subsequent semester. The above requirements apply to all courses taken while enrolled.

Time Limit

A student must complete all requirements for the MSJFP degree within six (6) consecutive calendar years after the first date of enrollment. Any exception must be petitioned to the Head of Department, the Dean of the College and the Dean of the Graduate School.

Professional Externship

Students are required to complete 400 hours of professional externship. The process of validation of the externship hours requires the completion of a Master of Science in Juvenile Forensic Psychology Externship form. The Externship Coordinator will ensure the externship is at an acceptable site.

Financial Aid

The University offers various forms of financial aid, from scholarships to work-student arrangements and loans. Scholarships are usually in very short supply. Those interested in financial aid are encouraged to visit the Financial Aid website (http://www.pvamu.edu/faid).

Graduate Assistantships

The College of Juvenile Justice and Psychology offers a limited number of graduate assistantships to eligible students. Research assistants are required to work with a faculty member or members on ongoing research projects for 20 hours per week. Responsibilities will vary but may include data input, questionnaire distribution, and data analysis. Student’s work may be incorporated into a Master’s thesis or a Texas Juvenile Crime Prevention Center project.

Thesis

A thesis is an empirically-driven investigation of a substantive issue in the field psychology. As an original research project, the thesis is expected to contribute to the base of knowledge in the field of psychology. Students that choose the thesis option must select a thesis committee of three among the faculty of the College of Juvenile Justice and Psychology. The members of the committee are normally chosen for their expertise in the proposed topic. Committee chairs may be chosen among any full-time graduate faculty among the College of Juvenile Justice & Psychology. A thesis packet should be obtained from the Graduate Secretary. Where a student is unable to assemble a complete committee, the Masters Program Coordinator shall appoint members as needed from the faculty.

The thesis committee may be changed at the student’s discretion. The student should consult the Masters Program Coordinator about such changes as soon as possible, and forward a new letter requesting approval of the new committee. Students are cautioned, however, that changes to the committee may also result in changes to the thesis with a corresponding extension of writing time.

Faculty members may also elect to withdraw from a committee. Before doing so, the faculty must meet with the student and the Masters Program Coordinator to discuss reasons for withdrawing. In the event that the Chair of the Thesis Committee is the Masters Program Coordinator, the student and the Coordinator should meet with the Dean.

After selecting a committee, the student should consult with the Chair and determine the process to be followed in completing the thesis. Formal requirements include IRB approval, an oral defense of the prospectus, and an oral defense of the thesis. Beyond these requirements, individual chairs
Field Work Externship Experience

Externship experience is critical in providing students opportunities to apply classroom knowledge of relevant theory, intervention models, psychological assessment and professional and ethical behaviors in various clinical settings with diverse clinical, ethnic and age populations. Enrollment in the initial Field Work externship can begin the semester after completion of appropriate clinical coursework and both psychological assessment courses have been completed with a passing grade of ‘B’. The externship course is taught by the Clinical Training Director, who can identify proper externship sites to which prospective externship students can apply before the beginning of the semester they are allowed to start this training experience. Applications to externship include sending a curriculum vitae (CV), approved by the Director of Clinical Training or Externship Coordinator to various externship site supervisors who are requested by the student to review the CV and consider the student for an interview. Following an invited interview, the student will receive notification from the Externship site supervisor regarding approval for training at the site. Subsequently, the student must provide the supervisor with proof of student liability insurance obtained by the student who is expected to apply (at www.apait.org or call Trust at 800-477-1200) and other documentation required by externship site supervisors (i.e., proof of recent TB test results, agreement to submit to the state public safety department to determine possible criminal record). Finally, the student and externship site supervisor will discuss training activities in which she or he will participate and negotiate an agreement regarding specified training activities and the work schedule (i.e., days and number of weekly hours). Typically, master’s level externship supervisors require a minimum of 20 hours of work per week at the externship site. Enrollment at the externship will be made official with completion of an externship contract in which identified training activities, along with work days and hours of attendance are stipulated. The contract is signed by the student, the primary externship training supervisor and other supervisors who participate in the student’s training. The primary supervisor for master’s externship training must be a licensed psychologist who has expertise in a variety of clinical services provided at the site. The contract is the responsibility of the student to complete and turn in to the Director of Clinical Training or Externship Coordinator.

Using a weekly work activity log, the student is expected to maintain a detailed account of his or her training experiences with documentation of hours spent in each training-related activity for each day of attendance at externship training. The primary externship site supervisor will review and sign each weekly work activity log. The student is required to keep copies of each work activity log and submit copies of the same to the Director of Clinical Training. Typically, a student works at an externship site at least two semesters. The externship site supervisor will complete a student performance evaluation form and submit it to the Director of Clinical Training at the mid-point and near the end of the externship training experience. The student, in turn, is required to complete an evaluation form near the end of the externship training experience in which feedback is provided to their externship supervisor regarding his/her training experience at the externship site. The externship site supervisor will review the evaluations with the student and areas of strengths and weaknesses are discussed. A remediation plan and contract are explored and implemented by the externship site supervisor or Externship Coordinator for persistent areas of weakness. Questions are addressed and both parties sign the documents. At the final evaluation, the primary externship site supervisor will assign a letter grade related to the student’s overall performance. The primary externship site supervisor will fax the mid-year and end-of-year completed evaluation forms to the Director of Clinical Training; submission of these forms by the student is not acceptable.

The Externship Coordinator coordinates all externship training placements and maintains regularly scheduled externship class meetings with all externship students for purposes of providing supplementary clinical training. The students will participate in class discussions regarding psychological assessments, individual therapy cases, as well as address questions related to quality of training, professional ethics and other work related concerns. The externship site supervisor and Externship Coordinator will maintain regular contacts regarding each student’s progress and/or problem areas. The externship site supervisor is expected to alert the Externship Coordinator about persistent areas of difficulty exhibited by the student (i.e., in areas of professional, ethical and interpersonal behavior problems, or expected progress in development of specific skills) due to unsatisfactory change through the typical supervision process. Subsequently, the site supervisor will develop a remediation plan and contract (detailing a description of the target behaviors, the responsibilities of the supervisor and the student, the specific remediation strategy to be used and the time interval in which the positive outcomes of the plan are expected to be demonstrated by the student). A copy of the plan will be submitted to the student and Externship Coordinator. If the student is unable to respond appropriately to the remediation plan, the externship supervisor can choose to terminate externship training with the student.

Degree Program Requirements

Required Courses (Must earn at least a grade of "B")

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPSY 5113</td>
<td>Psychology and the Juvenile Law</td>
<td>3</td>
</tr>
<tr>
<td>JPSY 5123</td>
<td>Psychology of Crime and Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>JPSY 5763</td>
<td>Developmental Psychology</td>
<td>3</td>
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Concentration: 27

Select the Thesis or Externship option below

Total Hours: 36

Thesis Concentration

Required Courses (Must earn at least a grade of "B")

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>JPSY 5943</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>JPSY 5963</td>
<td>Applied Statistical Methods and Computing</td>
<td>3</td>
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</table>
**Elective Courses**
Select six of the following: 18

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>JPSY 5223</td>
<td>Substance Abuse</td>
</tr>
<tr>
<td>JPSY 5233</td>
<td>Violence and Aggression</td>
</tr>
<tr>
<td>JPSY 5253</td>
<td>Domestic and Family Violence</td>
</tr>
<tr>
<td>JPSY 5263</td>
<td>Psychology and Treatment of the Juvenile Offender</td>
</tr>
<tr>
<td>JPSY 5413</td>
<td>Behavior Modification and Learning Theory</td>
</tr>
<tr>
<td>JPSY 5423</td>
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<td>Counseling</td>
</tr>
<tr>
<td>JPSY 5443</td>
<td>Group Dynamics and Group Treatment</td>
</tr>
<tr>
<td>JPSY 5453</td>
<td>Childhood Psychopathology</td>
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<tr>
<td>JPSY 5523</td>
<td>Introduction to Neuropsychology</td>
</tr>
<tr>
<td>JPSY 5533</td>
<td>Social Psychology and the Legal System</td>
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<tr>
<td>JPSY 5773</td>
<td>Psychology Seminar in Selected Topics</td>
</tr>
<tr>
<td>JPSY 5783</td>
<td>Ethics</td>
</tr>
<tr>
<td>JPSY 5843</td>
<td>Personality Assessment I</td>
</tr>
<tr>
<td>JPSY 5853</td>
<td>Personality Assessment II</td>
</tr>
<tr>
<td>JPSY 5863</td>
<td>Clinical Interviewing</td>
</tr>
<tr>
<td>JPSY 5973</td>
<td>Field Work in Psychology</td>
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**Total Hours** 27

**Externship Concentration**

**Required Courses (Must earn at least a grade of “B”)**

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<tbody>
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<tr>
<td>JPSY 5973</td>
<td>Field Work in Psychology</td>
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**Elective Courses**
Select six of the following: 18

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<td>JPSY 5783</td>
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<td>JPSY 5863</td>
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<td>JPSY 5943</td>
<td>Research Methods 1</td>
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<tr>
<td>JPSY 5963</td>
<td>Applied Statistical Methods and Computing 1</td>
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**Total Hours** 27

1  Web-based and face-to-face or cross-listed with Juvenile Justice.
2  Completion means passing at least a grade of “B”
Doctor of Philosophy in Clinical Adolescent Psychology Program Information

Admission Requirements

1. The minimum requirement for admission is Bachelor's degree from an accredited institution with at least 24 semester hours of psychology coursework in all of these domains: abnormal; developmental; experimental or research methods; learning or cognition; personality; psychophysiology; statistics; and social psychology.

2. The Division of Graduate Studies requires a minimum GPA of 3.00 (4.00 scale) on the applicant's most recent level of coursework. The applicant must provide official transcripts of all post-secondary academic work sent from institutions directly to the Admissions committee.

3. The program does not use specific GRE cut-off scores in the admissions process, however, submission of GRE scores prior to the application deadline is required. The GRE subject test in Psychology is also preferred but not required. The applicant must provide an official copy of GRE test scores sent from ETS directly to the Review Committee.


5. A vita or resume must be submitted to the Admissions Committee

6. Three letters of recommendations from individuals qualified to assess the application's academic and professional potential must be submitted directly to the Admissions Committee. A minimum of two letters must be written by faculty members or faculty mentors familiar with your academic performance; the third letter may be written by qualified individuals who have supervised any previous clinical or research work. Please send no more than four letters.

7. Applicants who are currently enrolled in a degree program must submit additional letters from their program director certifying that the applicant is in good standing and will complete all program requirements leading to graduation prior to August 15 of the current enrollment year.

8. Applicants who have been enrolled in a graduate program that was not completed must submit an additional letter from their program director explaining the circumstances surrounding the non-completion. The letter must also certify that the applicant is eligible to return to the program as a student in good standing.

9. An acceptable score on the Test of English as a Foreign Language (TOEFL) must be submitted if applicable.

Interview:

In the event the initial committee decision is favorable, applicants will be invited by the Doctoral Committee for a preferably face-to-face interview focused on assessment of academic/professional promise and interpersonal competence. In extenuating circumstances, such as hardship due to long travel distance or other work/personal obligations, an interview by telephone conference call with the Committee will be acceptable. The student may pass or fail the interview based on the criteria established by the faculty. Professional promise, interest that match Department faculty research interests, clearly articulated clinical psychology career goals and interpersonal skills are priority decision criteria. However, a positive qualifying score and interview do not automatically result in admission to the Ph.D. program.

Program Requirements

The program requires a minimum of 76 semester credit hours for the Ph.D. Of these, 37 are course work hours, 15 are practica hours, 12 are dissertation hours, and 12 are internship hours. Students will be provided a wide range of settings to do their practica and internships.

Transfer of Graduate Courses from Other Universities

A maximum of six (6) units of doctoral-level course work may be transferred from other accredited universities. A minimum grade of “B” is required in any such courses. Transfer credit is granted by petition to, and approval by, the Doctoral Committee, with final approval by the Dean of the College. It is the student’s responsibility to initiate the petition and justify the acceptance of the courses.

Continuous Enrollment

Continuous enrollment defines the minimal level of academic activity needed to remain enrolled in the program. A Ph.D. student on an assistantship is considered to be continuously enrolled when he or she is registered for at least 9 hours of the spring, fall, and 6 hours in the summer.

Residency

Students must establish course work residency before being admitted to candidacy. The residency requirement is considered to be met when a student has been continuously enrolled on campus for three consecutive semesters (including the summer semester).

Leave of Absence

Graduate students who have not completed their formal course requirements are expected to enroll continuously in the program during all consecutive semesters after initial registration. Students who do not expect to be enrolled should request a leave of absence in a letter to the Head of the Department. A leave of absence is granted at the discretion of the Dean of the College.

This provision includes students who have completed their formal course requirements and are writing the dissertation away from the campus. During a leave of absence, a student cannot make use of the University or College of Juvenile Justice and Psychology resources, nor can a student attempt comprehensive exams or defend a dissertation.
Good Standing

Ph.D. students remain in good standing when they maintain a minimum cumulative GPA of 3.0 for graded courses in the doctoral program. Only grades of “B” or better count toward required course work and dissertation hours. Any grade lower than “B” in a required area course will require the student to retake the course and pass it with a grade of “B” or higher. While one elective grade of “C” may be counted toward the Ph.D., only grades of “B” or better indicate satisfactory completion of courses required.

Comprehensive Examination

Before students can be admitted to doctoral candidacy, they must successfully complete the required doctoral comprehensive examination, which consists of written and oral parts. The examination provides an assessment of general knowledge, the ability to effectively integrate and synthesize information in the field, and competent skills for engaging in independent research necessary for completion of the doctoral dissertation. Students who fail any portion of the comprehensive examination must consult with the Department Head and the Doctoral Committee to determine the required remediation steps for re-taking the comprehensive exam. Two consecutive failures on any examination will result in the student’s dismissal from the Doctoral Program.

Advancement to Candidacy

Following successful completion of the comprehensive examinations, it is the student’s responsibility to petition for advancement to candidacy. To be advanced to candidacy, students must have completed all of the following requirements and/or procedures:

1. Achieved a cumulative grade-point average no lower than 3.0 in program course work and a minimum grade of “B” in all required area courses.
2. Completed all program course work with no more than one grade lower than “B” (unless the student successfully petitions his or her dismissal and retakes a second “C” course with a grade of “B” or higher).
3. Successfully passed all comprehensive examinations.

Following approval of the student’s application to candidacy, the student may enroll in Dissertation hours.

Dissertation

Following approval of the student’s application to candidacy, he/she may enroll in dissertation hours. Two attempts at passing the dissertation prospectus and dissertation defense are permitted. Having met other requirements for the degree, students who successfully defend their dissertation proposal will be eligible for applying to pre-doctoral clinical internship sites through the national APPIC Match process.

Completion requirements for the Doctor of Philosophy Degree in Clinical Adolescent Psychology is determined solely through the province of the program faculty and the Department Head.

Financial Assistance

The Graduate Programs of the College offer a limited number of graduate assistantships to qualified full-time students at the doctoral Degree level. All full-time doctoral students will be eligible for assistantships. Student loans are available to graduate students at Prairie View A&M on the basis of need. For more information about loans and other sources of aid, contact the Office of Student Financial Services, Memorial Student Center, third floor, Prairie View A&M University, Prairie View, TX 77446 (936) 261-1000.

Degree Program Requirements

<table>
<thead>
<tr>
<th>General Core Requirements</th>
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<tbody>
<tr>
<td>CPSY 7703 Cognitive Psychology</td>
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<tr>
<td>CPSY 7713 Social Psychology</td>
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<td>CPSY 7783 Developmental Psychology</td>
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<td>CPSY 7953 Statistical Methods in Psychology</td>
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<td>CPSY 7963 Advanced Statistical Techniques</td>
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<table>
<thead>
<tr>
<th>Clinical Course Requirements</th>
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<tbody>
<tr>
<td>CPSY 7623 Biological Bases of Behavior</td>
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<td>Professional Issues in Clinical Psychology</td>
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<td>CPSY 7743 Professional Ethics</td>
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<td>CPSY 7863</td>
<td>Practicum V</td>
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<td>Psychopathology</td>
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<td>CPSY 7893</td>
<td>Multicultural Issues in Clinical Psychology: Theory, Research and Practice</td>
</tr>
<tr>
<td>CPSY 7933</td>
<td>History &amp; Systems of Psychology</td>
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**Electives (select from one of the options below in consultation with advisor)**

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<td>or CPSY 7663</td>
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**Research Requirement**

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**Dissertation (Repeat appropriate course as necessary, must consult with advisor)**

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<td>CPSY 8943</td>
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</table>

**Total Hours**

96

**Honor Societies, Clubs, and Service Organizations**

*Psi Chi* is the National Honor Society in Psychology, founded in 1929 for the purposes of encouraging, stimulating, and maintaining excellence in scholarship, and advancing the science of psychology. Membership is open to graduate and undergraduate students who are making the study of psychology one of their major interests, and who meet the minimum GPA qualifications. Psi Chi is a member of the Association of College Honor Societies and is an affiliate of the American Psychological Association (APA) and the American Psychological Society (APS).

*ABPsi Student Circle* is a member of The Association of Black Psychologists, founded in San Francisco in 1968 to actively address the serious problems facing Black psychologists and the larger Black community. The Student Circle of the Association of Black Psychologists was founded in 1993 to serve as a mentoring program and establish a collective voice for the next generation. ABPsi Student Circle emphasizes community research and outreach and the need to prepare current students for future leadership roles in the field of psychology. The aim is to promote mentorship relations between professionals and psychology students and to aid in the struggle to improve the emotional well-being of people of African descent wherever possible. Membership is extended to students who major or minor in psychology.

*The Psychology Club* is a recognized student organization designed to provide an intellectual and social atmosphere for students. The purpose is to engage students in the exchange of information concerning the field of psychology, encourage student research and scholarship ideas, and to pursue excellence for entering into graduate school.

**College of Nursing**

**Mission Statement**

The faculty of the College of Nursing at Prairie View A&M University embraces the University's mission of excellence in education, research and service. The purpose of the College of Nursing is to prepare beginning professionals as nurse generalists (BSN); and graduate prepared nurses with an area of specialization (MSN), and/or a doctoral prepared (DNP) expert clinical practice scholar, all of whom have foundations for continuing personal, professional and educational growth. Graduates are prepared to practice in a variety of settings and to assume leadership roles as socially responsible and accountable professionals in response to the health needs of a rapidly changing, technologically complex society.

**Philosophy**

The philosophy of the Prairie View A&M University College of Nursing reflects the beliefs of the faculty and provides the foundation for the curriculum. While striving to maintain effective teaching and a strong curriculum, the faculty believe their role includes the fostering of academic excellence and intellectual curiosity in students. The faculty believe in educating students of diverse ethnic, academic and socioeconomic backgrounds through
professional role-modeling, mentoring relationships and the development of culturally sensitive paradigms for clinical practice. The faculty strive to foster commitment to values believed to be inherent in professional nursing: altruism, human dignity, truth, justice, freedom, equality and esthetics.

The faculty believe that learning is a life-long process which progresses along a continuum from simple recall of information, through comprehension, application, and synthesis of concepts, toward the creative use of new information and technology. Each student brings to the learning environment knowledge, values, attitudes and beliefs. Although the faculty facilitates learning by providing a receptive environment for students to use and expand their body of knowledge, the student must assume responsibility for the interactive learning process, which requires active participation of both the student and faculty.

Health is culturally and individually defined. The faculty believe that health is a dynamic state of integrated functioning/balance and purposeful direction within the internal and external environment to maximize one's potential. The faculty believe that all human beings have a right to health care, including the increasing vulnerable populations who do not have complete access to health care.

In this rapidly changing society, health care delivery must also change to meet changing needs of consumers. The faculty believe that consumers are not merely passive recipients of health care services, but active participants in the decision-making process affecting their health. The faculty espouse a primary health care strategy, which encourages advocacy and partnerships with consumers in systematic efforts to identify and address major health needs. The faculty empower consumers to be self-reliant and competent in managing the health aspects of their lives.

Nursing has a caring and holistic role in the promotion, protection, and restoration of health for culturally diverse individuals, families, aggregates, communities, and society. The nurse in collaboration with clients and other health care providers, functions in a variety of roles and settings to provide effective care based upon a planned, deliberate decision making process. The nursing process serves as the method by which therapeutic interventions and decisions are implemented.

The faculty believe that community service is a vital component of nursing practice. Community service involves providing cultural sensitive primary health care, direct services, and educational information designed to promote and maintain healthy communities in rural and urban settings.

The faculty believe that research provides a foundation for analytical thinking and guides nursing practice. The baccalaureate graduate uses the research process in clinical problem solving and incorporates research findings into practice. Research at the undergraduate level provides a basis for continued study at the graduate level.

Professional nursing education is based upon a general liberal arts education with an emphasis on the behavioral and natural sciences. The ability to process information, problem-solve, make informed decisions and think critically are desired outcomes of nursing education. The professional nurse who can communicate effectively, intervene therapeutically, think critically, and is technologically competent will be uniquely valuable in the present and future health care system.

The outcome of baccalaureate education is to empower graduates to continually develop as contributing members of the nursing profession and of the larger society to practice in a variety of settings, to assume leadership roles in response to the health needs of a rapidly changing, complex society, and to practice nursing within a framework that encompasses legal, ethical, and professional standards. The graduates are prepared for entry into graduate nursing education to further develop their professional roles.

Building upon the broad generalist foundation of baccalaureate education in nursing, the faculty believe that graduate education in nursing consists of an advanced research-based specialized body of knowledge which is required to deliver high quality consumer-focused health care. The advanced practice nurse has specialized knowledge and skills sets in leadership and health care management. Also, there is understanding and appreciation of curriculum theory and development, and the ethical responsibility and accountability for safety, best practices, and competencies as evidenced for effectiveness in teaching and management of health care delivery.

The faculty further believe graduate education in nursing to be the most effective means of preparing nurses to deliver advanced culturally sensitive health care to diverse and vulnerable populations; to advance nursing’s research base by linking nursing theory to advanced clinical practice; and to advocate for continuous improvement in health care through the formulation and implementation of consumer-focused health policy and health legislation.

### Instructional Organization

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<th>Degree Offered</th>
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<tr>
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<td>MSN</td>
</tr>
<tr>
<td>Family Nurse Practitioner</td>
<td>MSN</td>
</tr>
<tr>
<td>Nurse Education</td>
<td>MSN</td>
</tr>
<tr>
<td>Nursing Practice</td>
<td>DNP</td>
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### FINANCIAL AID

Financial Aid Application Forms may be obtained from the following:
Accreditation and Regulatory Agencies

The program is organized to meet and or exceed the requirements of regulatory and other agencies including, but not limited to: The Texas Higher Education Coordinating Board (THECB), the Texas Board of Nursing (BON), the Accreditation Commission for Education in Nursing (ACEN), the Commission on Collegiate Nursing Education (CCNE), and the National Organization of Nurse Practitioner Faculties (NONPF).

The Texas Higher Education Coordinating Board
1200 E. Anderson Lane
P.O. Box 12788
Austin, TX 78711-2788
(512) 427-6101
http://www.thecb.state.tx.us/

The Texas Board of Nursing
333 Guadalupe, Ste. 3-460
Austin, TX 78701-3944
Office: (512) 305-7400
Fax: (512) 305-7401
http://www.bon.texas.gov/

Accreditation Commission for Education in Nursing
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
Phone: (404) 975-5000
Fax: (404) 975-5020
http://www.acenursing.org

Commission on Collegiate Nursing Education
One Dupont Circle, NW, Suite 530
Washington, DC 20036-1120
Phone: (202) 887-6791
Fax: (202) 887-8476
http://www.aacn.nche.edu/ccne-accreditation

National Organization of Nurse Practitioner Faculties
1615 M. Street NW, Suite 270
Washington, DC 20036
tel: (202) 289-8044
tax: (202) 289-8046
http://www.nonpf.org

LICENSURE AS A REGISTERED NURSE

Disciplinary and Licensure Proceedings.

Each nursing student will receive the following documents, regarding licensure eligibility and disciplinary rules for registered professional nurses:

A. 217.11 Standards of Nursing Practice

217.12 Unprofessional Conduct

301.161 BON Authority to Establish Criminal Investigation

301.252 License Application
Purpose and Goals
The purpose of the Baccalaureate Nursing Program is to prepare students for beginning professional practice as nurse generalists. Graduates are educated to meet community and state needs and assume leadership roles in the delivery of health care. As nurse generalists, graduates are prepared to assume beginning positions in any area of nursing practice and have the academic foundation for advanced study in nursing or related areas.

Core Performance Standards
The Prairie View A&M University College of Nursing has adopted the core performance standards associated with the Southern Regional Education Board (SREB), Council on Collegiate Nursing Education (SCCEN), 2014 Common Core State Standards; Americans with Disabilities Act (ADA); Title IX of the Education Amendment Act 1972; American Nurses Association, Code of Ethics for Nurses, 2008; American Association of Colleges of Nursing (AACN), Essentials of Baccalaureate Education for Professional Nursing Practice, 2008; The Essentials of Master's Education in Nursing; The Essentials of Doctoral Education for Advanced Nursing Practice; 2006; Texas Board of Nursing Differentiated Essential Competencies (DECs), 2010 and the Standards for Advanced Practice in Nursing Education; the National Organization of Nurse Practitioner Faculties, (NONPF), Nurse Practitioner Core Competencies, 2012, and the Quality and Safety Education for Nurses (qsen) - Pre-licensure and Graduates Knowledge, Skills, and Attitudes, 2010; and Master's Level, 2012.

Baccalaureate Nursing Program
Admission Requirements Baccalaureate Nursing Program
A student seeking to declare a major in nursing must be admitted to the University through the Office of Admissions in accordance with the defined criteria for admission as outlined in the Prairie View A&M University Undergraduate Catalog. An acceptance letter for enrollment in the University does not guarantee a student’s acceptance and enrollment in the pre-nursing (lower division) or nursing program (upper division, clinical studies). Admission into the upper division clinical studies is a selective process.

Pre-Nursing Major (Lower Division) Baccalaureate Nursing Program

• Unconditional Admission Requirements
  • High School GPA: 3.0 minimum
  • High School Mathematics: 4 years (must include Algebra I, II, and Geometry)
  • High School Science: 4 years (must include Biology, Chemistry, and Physics)
  • TSI Requirements met through testing (TSI, ACT, SAT, or listed alternative tests)

Any courses taken for dual credit, advance placement, or to satisfy college requirements will be applied appropriately. Applicants are advised to notify the PVAMU Office of Admissions to validate the transfer of pre-college and advanced placement credits.

Pre-Nursing Program Lower Division - Other Applicants
Admission to the Pre-Nursing Program (lower division) may be considered when the applicant satisfies the undergraduate admission requirements of the University and the College of Nursing as a freshman, sophomore or transfer student. In addition, students seeking admission as a pre-nursing major must also meet the following criteria:

1. Satisfy all sections of TSI (Texas Success Initiative) or equivalent tests by achieving the scores as illustrated or be exempt as described below:
   TSI: Reading 351; Math 350; Writing 363 or essay;
   ACCUPLACER: Reading 78; Elementary Algebra 63; Written Essay 6; Sentence Skills 80;
   ASSETT: Reading 41; Algebra 38; Written Essay 6; Writing Skills 40;
   COMPASS: Reading 81; Algebra 39; Written Essay 6; Writing Skills 59.

Exemption is based on the student’s performance on the following:
SAT and ACT scores are valid for only five years from the date of testing and all requirements listed above must be met on the same test date. Exit level TAKS scores are valid for only three years from the date of testing and scores for exemption purposes must be satisfied on the first attempt of testing.

Other possible exemptions may include:

a. A student who has graduated with an associate or baccalaureate degree from an accredited institution of higher education.

b. A student who is serving on active duty as a member of the Armed Forces of the United States, the Texas National Guard, or as a member of a reserve component of the Armed Forces of the United States and has been serving for at least three years preceding enrollment. A certified copy of orders or documentation showing length of service is required.

c. A student who, on or after August 1, 1990 was honorably discharged, retired, or released from active duty as a member of a reserve component of the Armed Forces of the United States. A certified copy of the certificate of release is required.

Note: The College of Nursing does not accept remedial courses to satisfy the THEA or other equivalent tests requirements in accordance with the Texas Success Initiative (TSI).

2. Complete the pre-nursing (lower division) 60 required credit hours with a minimum 3.0 overall cumulative grade-point-average (GPA), and a minimum 3.0 GPA in support courses in the following areas: microbiology, anatomy and physiology, chemistry, sociology, psychology, nutrition, human development life span and statistics.

Pre-Nursing Program (Lower Division) Progression Requirements

The pre-nursing (lower division) program is designed to be completed in four academic semesters of full-time study. Students who have not completed the required pre-nursing (lower division) coursework totaling the 60 semester credit hours; satisfied the required grade point average (3.0 cumulative; 3.0 support area), and demonstrated satisfactory performance on the nursing entrance examination will be allowed one additional semester of study to meet the pre-nursing program requirements. Failure to meet the above requirements after one additional semester will result in the student’s ineligibility to continue as a pre-nursing major. It is advised that pre-nursing majors do not select a minor or a second major of study.

Withdrawal Policy for Pre-Nursing Program (Lower Division)

A student is allowed only two (2) withdrawals (W) from pre-nursing support courses. For example, a withdrawal from one course twice constitutes two (2) withdrawals; or withdrawal from two different courses constitutes two (2) withdrawals. A third withdrawal from any support course(s) will result in ineligibility to continue as a pre-nursing major.

A student who withdraws voluntarily from the pre-nursing major and the university in good academic standing is eligible for readmission as a pre-nursing (lower division) major, and is subject to the program requirements as listed in the latest edition of the PVAMU Undergraduate Catalog.

First Time, Freshman and Transfer Students

First time college students must satisfy the requirements for unconditional admission to pre-nursing major. Students who have completed satisfactorily less than two academic semesters are required to register through the University College (PVAMU Main Campus), which includes academic advising and other ongoing activities to support the student’s success as a pre-nursing major. After the completion of two academic semesters (freshman year of study), students are transferred to the Office of Pre-Nursing Advising (PVAMU Main Campus) for guidance in enrollment management and completion of the lower division.

Transfer students must submit an official transcript(s) of all previous college course work and grades to the Office of Pre-Nursing Advising and meet with a nursing advisor for transcript evaluation and eligibility for placement. Transfer students who have completed 45 or more credit hours of the lower division and plan to complete the remaining lower division requirements at another educational institution(s) must receive approval through the College of Nursing Office of Admissions and Student Services, Houston Center.

Change of Major

Students desiring to change their major to pre-nursing must meet with an academic advisor in the University College or the Office of Pre-Nursing Advising to complete a Change of Major Form prior to the early registration period. Likewise, the same procedure applies to a pre-nursing major seeking a change in academic study.

Pre-Nursing Program (Lower Division) Progression Requirements

The pre-nursing (lower division) program is designed to be completed in four academic semesters of full-time study. Students who have not completed the required pre-nursing (lower division) coursework totaling the 60 semester credit hours; satisfied the required grade point average (3.0 cumulative; 3.0 support area), and demonstrated satisfactory performance on the nursing entrance examination will be allowed one additional semester of study to meet the pre-nursing program requirements. Failure to meet the above requirements after one additional semester will result in the student’s ineligibility to continue as a pre-nursing major. It is advised that pre-nursing majors do not select a minor or a second major of study.

Withdrawal Policy for Pre-Nursing Program (Lower Division)

A student is allowed only two (2) withdrawals (W) from pre-nursing support courses. For example, a withdrawal from one course twice constitutes two (2) withdrawals; or withdrawal from two different courses constitutes two (2) withdrawals. A third withdrawal from any support course(s) will result in ineligibility to continue as a pre-nursing major.

A student who withdraws voluntarily from the pre-nursing major and the university in good academic standing is eligible for readmission as a pre-nursing (lower division) major, and is subject to the program requirements as listed in the latest edition of the PVAMU Undergraduate Catalog.

First Time, Freshman and Transfer Students

First time college students must satisfy the requirements for unconditional admission to pre-nursing major. Students who have completed satisfactorily less than two academic semesters are required to register through the University College (PVAMU Main Campus), which includes academic advising and other ongoing activities to support the student’s success as a pre-nursing major. After the completion of two academic semesters (freshman year of study), students are transferred to the Office of Pre-Nursing Advising (PVAMU Main Campus) for guidance in enrollment management and completion of the lower division.

Transfer students must submit an official transcript(s) of all previous college course work and grades to the Office of Pre-Nursing Advising and meet with a nursing advisor for transcript evaluation and eligibility for placement. Transfer students who have completed 45 or more credit hours of the lower division and plan to complete the remaining lower division requirements at another educational institution(s) must receive approval through the College of Nursing Office of Admissions and Student Services, Houston Center.

Change of Major

Students desiring to change their major to pre-nursing must meet with an academic advisor in the University College or the Office of Pre-Nursing Advising to complete a Change of Major Form prior to the early registration period. Likewise, the same procedure applies to a pre-nursing major seeking a change in academic study.
BACCALAUREATE NURSING PROGRAM
(CLINICAL STUDIES UPPER DIVISION)

Applications for admission to the Baccalaureate Nursing Program (clinical studies upper division) are received in the spring and fall semesters to the Prairie View A&M University, Office of Student Services (Houston, transfer students) and Pre-Nursing Advising and Office of Admissions. Students must be fully admitted to the university before being considered for acceptance in the College of Nursing. Admission is competitive and on space availability. Deadlines for applications are March 1st for fall admission and September 1st for spring admission.

The College of Nursing, Houston Center is the primary site for the baccalaureate nursing program. Also, the College offers the baccalaureate program through distance education at the Northwest Houston Center and Prairie View A&M University (main campus, Prairie View, Texas). Only students accepted in the LVN-BSN and RN-BSN programs may enroll at the designated distance education locations.

Admissions Requirements (Clinical Studies Upper Division)

Admission to the clinical studies (upper division) may be considered when the applicant satisfies the undergraduate admission requirements of the University and the College of Nursing as Prairie View A&M University pre-nursing major or as a transfer student.

Students seeking admission to clinical studies must meet the following criteria:

Complete the pre-nursing major (lower division) with a minimum 3.0 overall cumulative grade-point-average (GPA) and a minimum 3.0 GPA in support courses) in the following areas: microbiology, anatomy and physiology, chemistry, psychology, nutrition, human development life span and statistics.

Completion of all natural science courses within the last 5 years of admission with a minimum grade of “C”: anatomy and physiology, microbiology, and chemistry; and completion of all support courses within 10 years of admission: psychology, nutrition, human development life span, and statistics.

The validation of dated credits and courses requiring updating is made upon receipt of a completed application to the College of Nursing.

All lower division (core and support courses) classified as pre-nursing and the natural science courses may not be repeated more than once to achieve a passing grade of “C”. Also, no more than two pre-nursing lower division courses may be repeated.

Satisfactory performance on a faculty selected pre-nursing admission examination, which may not be taken more than two times.

Admission Procedures for Acceptance to Clinical Studies Upper Division

Note: Original lab work test results for blood tests and / titers must be submitted; dates and results of titers only is not accepted. The following documentation is required:

1. Submission of an application to the University through the Office of Undergraduate Admissions in accordance with the defined criteria for admissions as outlined in the Prairie View A&M University Undergraduate Catalog and the College of Nursing Office of Admissions and Student Services. An acceptance letter for enrollment in the University does not guarantee a student’s acceptance to the College of Nursing and enrollment in the baccalaureate nursing program clinical studies (upper division).

2. Submission of documentation of having met the following health requirements:
   - Completed physical examination (must be repeated annually for continued enrollment in the nursing program)
   - Negative Tuberculin (TB) Mantoux skin test or negative chest x-ray (repeated annually)
   - Hepatitis B: Series of three immunizations OR titer (blood test) demonstrating immunity
   - Hepatitis C: Blood test for antibody OR Hepatitis panel OR Hepatitis C titer
   - MMR: Titer required (history of diseases: measles, mumps or rubella, or documentation of vaccinations not acceptable)
   - Varicella: Titer required (History of chicken pox not acceptable)
   - Meningococcal Vaccine (for students age 29 and under)
   - TDAP immunization
   - Flu shot (immunization between second week of August 1st and September 1; repeated annually)

3. Submission of a current CPR certification only by the American Heart Association (Healthcare Provider Course).

4. Negative criminal background check (TXBON) and drug screening test by a designated approved agency of the College of Nursing. Students may be subjected to additional criminal background check and drug screening to satisfy continuing enrollment in the nursing program.

5. Acquisition of the student professional liability insurance coverage by a designated approved agency of the University.

6. Submission of a current health insurance card.

Verification of the applicant’s decision to accept the offer of admission to the nursing program must be received within two weeks from the date of offer for admission. Final admission decisions are dependent on receipt of the completed application package; which includes a nursing processing fee and space availability. Applicants not accepted for admission to the clinical studies upper division may be placed on a waiting list for the semester of application only. Applicants not admitted may reapply at the next admissions cycle.
Any student applying for transfer of courses from another baccalaureate nursing program must fulfill all requirements for admission to the University and the College of Nursing. Only nursing courses from a nationally accredited baccalaureate program may be considered for possible transfer credit and the student must be in good standing in the previous nursing program attended. Pass/Fail courses are not accepted. Program placement is determined on an individual basis by the College of Nursing.

**Academic Progression (Clinical Studies Upper Division)**

To remain in good academic standing in clinical studies, a minimum grade of “C” must be achieved in all nursing studies courses. A minimum 2.50 cumulative grade-point-average must be maintained for good standing in the nursing program. The grading scale for clinical studies is as follows:

<table>
<thead>
<tr>
<th>Test</th>
<th>Combined</th>
<th>Verbal</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT (SAT SUBJECT TEST scores are not acceptable)</td>
<td>1070</td>
<td>500 (Minimum)</td>
<td>500 (Minimum)</td>
</tr>
<tr>
<td>ACT</td>
<td>23</td>
<td>19 (Minimum)</td>
<td>19 (Minimum)</td>
</tr>
<tr>
<td>TAKS</td>
<td>3 Writing</td>
<td>2200 ELA</td>
<td>2200 Math</td>
</tr>
<tr>
<td>TSI</td>
<td></td>
<td></td>
<td>350</td>
</tr>
</tbody>
</table>

Satisfactory performance on a written medication proficiency examination given every semester (including summer sessions) must be achieved for eligibility for enrollment in clinical courses. Also, students must perform satisfactorily on semester standardized nursing achievement tests.

**Good Academic Standing (Clinical Studies Upper Division)**

- Achieve a grade of “C” (minimum 75%) in all nursing courses
- Achieve satisfactory performance on semester medication proficiency examination with a minimum score of ninety-four per cent (94%)
- Achieve satisfactory performance on standardized tests
- Demonstrate professional and academic integrity

**Withdrawal Policy for Clinical Studies (Upper Division)**

Students are allowed only two (2) withdrawals (W) from required nursing courses. For example, a withdrawal from one course twice constitutes two (2) withdrawals; or a withdrawal from two different courses constitutes two (2) withdrawals. Withdrawal from a course that is a companion to a co-requisite course will constitute one withdrawal if the grade is passing in one of the co-requisite courses. A third withdrawal from any one or more required courses will result in dismissal from the nursing program.

A student who withdraws voluntarily from clinical studies and is in good standing may be considered for readmission to the College of Nursing on an individual basis.

**Academic Probation in Clinical Studies (Upper Division)**

Students in upper division clinical studies who fail to meet one or more of the requirements for good academic standing will be placed on academic probation in the College of Nursing.

- Failure in a nursing course
- Withdrawal from two (2) nursing courses
- Code of Conduct unbecoming to a student
- Academic misconduct

Students will receive notification of academic probation status through written communication, and copies will be sent to the students’ academic advisors.

Students are allowed one failure and one opportunity to retake one nursing course only.

**Academic Misconduct**

A student may be suspended or dismissed from clinical studies upper division because of academic misconduct for any of the following reasons, but not limited to:

- Acts of dishonesty
- Clinical practice performance beyond the role expectations of a student nurse
- Falsification of credentials; plagiarism
- Lack of professional integrity and conduct

**Dismissal from the College of Nursing**

A student will be dismissed from the College of Nursing for any of the following reasons, but not limited to:
• Failure in a second nursing course
• Failure to achieve a minimum grade of “C” after repeating a required nursing course
• Failure to achieve satisfactory performance on the College Comprehensive Examination
• Third withdrawal from nursing courses
• Unsafe clinical practice performance
• Falsification of records in clinical performance
• Code of Conduct unbecoming to a student as described in the College of Nursing Undergraduate Student Handbook and the Code of Student Conduct and Handbook.

Academic dismissal becomes effective in the semester of the infraction of the policy or immediately following the semester.

**Comprehensive Examination**

Students enrolled in the Generic (Basic) and the LVN-BSN Programs are required to take the College Comprehensive Examination in the final semester of the nursing program of study. Students must achieve a passing score on the examination as defined by the College of Nursing. Below are the steps relating to the comprehensive examination:

1. Students enrolled in NURS 4403, *Nursing Process Seminar*, are administered the Comprehensive Examination.
2. Students have two (2) chances to take the Comprehensive Examination during the semester: after the onset of the semester; and near the end of the semester.
3. Students must achieve a minimum required standard score on the Comprehensive Examination which accounts for 65% of the grade in NURS 4403.
4. Students must achieve a minimum overall passing grade of “C” (75%) to pass NURS 4403.

**Note:**

1. Students who fail to achieve the minimum overall passing grade of “C” (75%) in NURS 4403 and do not have any previous failure in a nursing course, are eligible to retake NURS 4403 (register and enroll) immediately in the subsequent semester, fall or spring (excluding summer session).
2. Students who fail to achieve the minimum overall passing grade of “C” (75%) in NURS 4403 and do have a previous failure in a nursing course, are not eligible to continue enrollment and will be dismissed from the College of Nursing.

**Readmission to the College of Nursing**

1. A student in good standing who is not enrolled in the College of Nursing the subsequent semester must apply for readmission to the University and to the College of Nursing. Placement of enrollment within the upper division clinical studies of the nursing major is determined on an individual basis and space availability.
2. A student who has been dismissed from the College of Nursing may be considered for readmission to the nursing program not greater than two years after the date of dismissal. Eligibility for consideration of readmission is determined by the current program standards.
3. If readmission is granted, failure to meet the requirements for good academic standing in any semester and specifically, failure in one or more nursing courses will result in dismissal from the program and ineligibility for readmission in the future.

**Graduation Requirements**

The College of Nursing adheres to all general requirements and procedures of the University for satisfying the criteria for graduation. In addition, students are eligible to apply for graduation when the following conditions are met:

• Completion of the required semester credit hours
• Completion of the residency requirement of a minimum 64 semester hours of credit (upper division clinical studies) toward the BSN Degree earned at Prairie View A&M University. Achievement of a minimum 2.50 GPA
• Completion of all clinical studies upper division courses within five years of the initial admission date
• Satisfactory performance on comprehensive examinations selected, designed and score determined by the College of Nursing

**Application for Graduation**

The College of Nursing adheres to all general requirements and procedures of the University for satisfying the criteria for graduation. In addition, students are eligible to apply for graduation when the following conditions are met:

1. Completion of the required semester credit hours
2. Achievement of a minimum 2.50 cumulative GPA
3. Completion of all clinical studies upper division courses within five years of the initial admission date
4. Satisfactory performance on comprehensive examinations selected by the College of Nursing (generic/basic and LVN-BSN students only)
Student Nursing Organizations

National Student Nurses Association (NSNA). Membership is opened to pre-clinical (lower division) and nursing majors (upper division). The chapter is a member of the Texas Student Nurses Association and the National Student Nurses Association. The Prairie View A&M University Chapter of the Texas Student Nurses Association affords opportunities to meet other student nurses in Texas and the nation, promotes interschool affairs, interests and awareness of professional nursing organizations, and prepares students for participation in these organizations and future leadership roles.

Chi Eta Phi Sorority. Upper Division, clinical studies student nurses may apply for membership in Zeta Chi Beta Chapter of Chi Eta Phi Sorority. The principal goal of the sorority is to promote scholarship, leadership, and the delivery of health care through participation in civic, community, and health-related activities.

Sigma Theta Tau, International Honor Society. Eta Delta is the chartered Prairie View A&M University chapter of Sigma Theta Tau International Honor Society for Nursing. The honor society recognizes superior achievement, leadership, innovation, and professional standards. Membership is by invitation, upper division clinical studies.

American Red Cross. Membership is open to all students enrolled in upper division clinical studies and serves as an extension of the Houston Chapter of the American Red Cross. The chapter provides volunteer nursing and health service to the College of Nursing, university, and the community-at-large; provides an auxiliary source of learning for student nurses; and promotes professional development and commitment to community service.

The American Assembly for Men In Nursing (AAMN). Membership is open to the male student nurses enrolled in the College of Nursing upper division clinical studies. The purpose of AAMN is to provide a framework for nurses as a group to meet, discuss, and influence factors which affect men as nurses.

Prairie View A&M International Student Nursing Organization (PVISNO). Membership is opened to all students enrolled in the College of Nursing upper division clinical studies. The organization promotes peer mentoring and community service while enhancing understanding and appreciation of other cultures. Members of this organization must also be a member of NSNA.

Degree Program Requirements

Bachelor of Science in Nursing with a major in Nursing and a Generic concentration Degree Program Requirements

Core Courses

All Nursing Core Curriculum requirements are shown in the suggested degree program.

Support Area Requirements *(16 SCH)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>HDFM 2553</td>
<td>Human Development: Life Span</td>
<td>3</td>
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<tr>
<td>HUSC 1343</td>
<td>Ecology of Human Nutrition and Food</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2613</td>
<td>Fundamental of Statistics</td>
<td>3</td>
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<tr>
<td>CHEM 1051</td>
<td>General Inorganic Chemistry Laboratory</td>
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<tr>
<td>CHEM 1053</td>
<td>Introduction to General Chemistry</td>
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<tr>
<td>BIOL 1073</td>
<td>General Microbiology</td>
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Major Requirements (64 SCH)

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<tr>
<th>Course Code</th>
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<tr>
<td>NURS 3003</td>
<td>Introduction to Pharmacology</td>
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<tr>
<td>NURS 3013</td>
<td>Individual Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3023</td>
<td>Basic Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3164</td>
<td>Basic Concepts of Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NURS 3263</td>
<td>Basic Concepts of Nursing Practicum</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3174</td>
<td>Adult Health Nursing I</td>
<td>4</td>
</tr>
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<td>NURS 3273</td>
<td>Adult Health Nursing I Practicum</td>
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<tr>
<td>NURS 3185</td>
<td>Family Health Nursing</td>
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<td>NURS 3284</td>
<td>Family Health Nursing Practicum</td>
<td>4</td>
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<tr>
<td>NURS 4013</td>
<td>Introduction to the Research Process</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4163</td>
<td>Mental Health Nursing</td>
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<td>NURS 4262</td>
<td>Mental Health Nursing Practicum</td>
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<td>NURS 4173</td>
<td>Community Health Nursing</td>
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<td>NURS 4272</td>
<td>Community Health Nursing Practicum</td>
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<td>NURS 4183</td>
<td>Adult Health Nursing II</td>
<td>3</td>
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<tr>
<td>NURS 4282</td>
<td>Adult Health Nursing II Practicum</td>
<td>2</td>
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<tr>
<td>NURS 4193</td>
<td>Nursing Leadership and Management</td>
<td>3</td>
</tr>
</tbody>
</table>
LVN-BSN Concentration

DISTANCE EDUCATION PROGRAM

Licensed Vocational Nurses (LVNs) who seek admission to the LVN-BSN Program must meet the same lower division requisites and degree requirements as generic students. Applicants are evaluated on an individual basis and must complete the upper division clinical studies within five years of the initial admission date.

Application Process:

1. Be a graduate of an accredited Texas or out-of-state vocational technical or a community college program with a 3.0 GPA.
2. Current license to practice as a LVN in Texas.
3. Complete 60 prerequisite transferrable college-level hours (45 hours to apply) with less than 2 repeated courses.
4. Meet the required 3.0 Cumulative GPA and Support Area GPA on a 4.0 scale
5. Fulfill Texas Success Initiative (TSI) requirements. Test scores displayed on Transcript.
6. Complete State of Texas Common Application and print a copy.
7. Submit non-refundable $25.00 application fee to the Main Campus – Office of Admissions and Records online or by mail, and keep a copy of receipt.
8. Request official transcripts from all institutions attended to be sent to the Office of Undergraduate Admissions.
9. Satisfactory performance on the pre-nursing entrance examination. Two attempts are permitted.
10. Submit completed application, diploma, license, practice experience and any current transcripts to the College of Nursing by March 1 (fall) and September 1 (spring) admission.

Negative criminal background check and drug screening test by the TXBON and a designated approved agency of the College of Nursing. Students may be subjected to additional criminal background check and drug screening to satisfy continuing enrollment in the nursing program.

Process for Advanced Placement

1. Upon admission to the LVN-BSN program, students may qualify for seven (7) hours of advanced placement through credit by examinations.
2. Advanced placement is achieved by obtaining a required performance score on two tests which may not be taken more than twice
   - National League for Nursing Acceleration Challenge Exams (ACE):
     A. Care of the Adult Client
     B. Clinical Pharmacology
3. Upon successful completion of the above examinations, the student will receive 7 credit hours for the following nursing courses: Introduction to Pharmacology, Adult Health Nursing I Theory and Adult Health Nursing I Practicum. After satisfactory completion of the first 11 credit hours of the program, and the student is awarded 10 semester credit hours in nursing courses congruent with the Texas Articulation Model. A total of 17 semester credit hours are given for advanced placement.

Graduation Requirements

The College of Nursing adheres to all general requirements and procedures of the University for satisfying the criteria of the Bachelor of Science Degree in Nursing. In addition, students are eligible to apply for graduation when the following conditions are met:

Completion of the required semester credit hours.

- Completion of the residency requirement of a minimum 49 semester credit hours (upper division clinical studies) toward the BSN Degree earned at Prairie View A&M University.
- Achievement of a minimum 2.50 GPA.
- Completion of all clinical studies upper division courses within five years of the initial admission date
- Satisfactory performance on a comprehensive examination selected, designed and score determined by the College of Nursing.

The LVN-BSN Program is offered via distance education at two (2) Prairie View A&M University sites: the Houston Center; and The Northwest Houston Center. Scheduling of courses per semester at distance sites are regulated based on enrollment management.
### Bachelor of Science in Nursing with a major in Nursing and a LVN-BSN concentration Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
</tr>
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<tbody>
<tr>
<td>All Nursing Core Curriculum requirements are shown in the suggested degree program.</td>
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<table>
<thead>
<tr>
<th>Support Area Requirements (16 SCH)</th>
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<tbody>
<tr>
<td>HDFM 2553 Human Development: Life Span 3</td>
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<tr>
<td>HUSC 1343 Ecology of Human Nutrition and Food 3</td>
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<tr>
<td>PSYC 2613 Fundamental of Statistics 3</td>
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<tr>
<td>CHEM 1053 Introduction to General Chemistry 3</td>
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<td>CHEM 1051 General Inorganic Chemistry Laboratory 1</td>
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<td>BIOL 1073 General Microbiology 3</td>
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<thead>
<tr>
<th>Major Requirements (49 SCH)</th>
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<tr>
<td>NURS 3005 Transition to Professional Nursing 5</td>
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<tr>
<td>NURS 3013 Individual Health Assessment 3</td>
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<td>NURS 3023 Basic Pathophysiology 3</td>
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<td>NURS 3185 Family Health Nursing 5</td>
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<td>NURS 3284 Family Health Nursing Practicum 4</td>
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<td>NURS 4013 Introduction to the Research Process 3</td>
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<td>NURS 4163 Mental Health Nursing 3</td>
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<td>NURS 4262 Mental Health Nursing Practicum 2</td>
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<td>NURS 4292 Nursing Leadership and Management Practicum 2</td>
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<td>NURS 4403 Nursing Process Seminar 3</td>
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<tr>
<th>Nursing Electives</th>
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</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 124

### RN-BSN Concentration

**DISTANCE EDUCATION ONLINE PROGRAM**

Registered nurses who seek admission to the RN-BSN Program must meet the same prerequisites and degree requirements as all baccalaureate nursing students. Applicants are evaluated on an individual basis and must complete RN-BSN Program within five years of the initial enrollment date.

The RN-BSN Program is offered online. Scheduling of courses per semester is based on an adequate class size.

**Note:** RN students who cannot enroll in online courses will be accommodated.

**Admissions requirements:**

- Be a graduate of a nursing diploma or associate degree program, which is accredited by the ACEN (Accreditation Commission for Education in Nursing) for preparing registered nurses.
- Hold current license as a registered nurse in the State of Texas or application for licensure in progress to the Texas Board of Nursing.
- Completion of requisite lower division courses (60 credit hours), including core and support courses with a minimum grade of “C” per course and a cumulative grade-point-average of 3.00.
- Documentation of recent nursing practice experience of at least 6 months full-time or one year part-time or a refresher course with a clinical component within the last two years.
- Negative criminal background check by TX Board of Nursing and drug screening test by a designated approved agency of the College of Nursing. Students may be subjected to additional criminal background check and drug screening to satisfy continuing enrollment in the nursing program.
Advanced Placement Eligibility and Articulation

1. Upon admission to the RN-BSN program, students may qualify for thirty-six (36) hours of advanced placement and articulation congruent with the Texas Articulation Model – NURS 3164, 3263, 3003, 3174, 3273, 3185, 3284, 4163, 4262, 4183, 4282 awarded toward the Bachelor of Science Nursing Degree.

Graduation Requirements

The College of Nursing adheres to all general requirements and procedures of the University for satisfying the criteria for graduation. In addition, students are eligible to apply for graduation when the following conditions are met:

• Completion of the required semester credit hours for the BSN, 124 credits.
• Completion of the residency requirement of a minimum 28 semester hours of credit (upper division clinical studies) toward the BSN Degree earned at Prairie View A&M University.
• Achievement of a minimum 2.50 GPA
• Completion of all clinical studies upper division courses within five years of the initial admission date

Bachelor of Science in Nursing with a major in Nursing and a RN-BSN concentration

Core Curriculum

All Nursing Core Curriculum Requirements are shown in the suggested degree program.

Support Area Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDFM 2553</td>
<td>Human Development: Life Span</td>
<td>3</td>
</tr>
<tr>
<td>HUSC 1343</td>
<td>Ecology of Human Nutrition and Food</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2613</td>
<td>Fundamental of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1053</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1051</td>
<td>General Inorganic Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1073</td>
<td>General Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1054</td>
<td>Anatomy &amp; Physiology I Lab</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1064</td>
<td>Anatomy &amp; Physiology II Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Advanced Placement Articulation 36

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 4003</td>
<td>Concepts of Professional Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3013</td>
<td>Individual Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NURS 3023</td>
<td>Basic Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4013</td>
<td>Introduction to the Research Process</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4032</td>
<td>Trends and Issues in Professional Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4173</td>
<td>Community Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4193</td>
<td>Nursing Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>NURS 4272</td>
<td>Community Health Nursing Practicum</td>
<td>2</td>
</tr>
<tr>
<td>NURS 4292</td>
<td>Nursing Leadership and Management Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

Nursing Electives (2) 6

Total Hours 126

Applicants to the RN-BSN program have the option of taking 6 credit hours of graduate courses towards the MSN degree in Nurse Education; Nurse Administration; and Family Nurse Practitioner. The six credit hours of courses must be approved by the dual undergraduate (BSN) and graduate (MSN) program advisors.

• NURS 5003 Transcultural Family; NURS 5033 Advanced Pathophysiology; NURS 5023 Advanced Pharmacology; NURS 5243 Advanced Health Assessment; CNSL 5093 Educational Statistics

Distance Education Programs

The central purpose of Distance Education at Prairie View A&M University is the elimination of geographical distance and time as barriers to access to quality courses and programs. Current course offerings include education, agriculture, sociology, engineering, social work, English, Spanish, speech, business, juvenile justice, health, architecture, and nursing.

As a support service for the academic enterprise, Distance Education works collaboratively across the university community to:
• Electronically extend the campus of Prairie View A&M University through the NORTHSTAR and TTVN Telecommunications Networks for video delivery and WebCT through eCourses for online course delivery.
• Provide an open learning environment where teaching and learning occur anytime and anyplace.
• Share the practical applications of the university's knowledge and expertise to benefit society and support the economic growth and vitality of the local community.
• Provide training for faculty and staff involvement in Distance Learning.
• Increase Prairie View A&M University's access to the world and the world's access to the University.
• Research Distance Learning environments and emerging academic technologies.

Distance Education and eCourses are listed in the Schedule of Classes and may also be accessed through Panther Tracks.

Approved Programs:

BSN in Nursing with a LVN-BSN concentration Program
BSN in Nursing with a RN-BSN concentration Program
MSN- Family Nurse Practitioner
MSN - Nurse Education
MSN- Nurse Administration

Master of Science in Nursing Degree Program

Program Objectives

The program objectives are designed to accomplish a Master of Science Degree through three degree programs: Family Nurse Practitioner, Nurse Education and Nurse Administration. Upon completion of the program, the graduate is prepared to:

• Use evidenced-based research to enhance nursing practice and promote healthy communities and diverse populations.
• Collaborate with others to influence the social, political and economic trends in health care delivery and health policy.
• Analyze ethical, legal, and professional standards within the health care system.
• Incorporate professional values, accountability, and responsibility into advanced nursing practice, education and administration.
• Integrate knowledge, theories and professional standards of nursing and related disciplines into advanced nursing roles.
• Demonstrate competency in an advanced nursing role in serving a cultural, ethical and technological diverse society.
• Deliver specialized care to culturally diverse populations through health promotion, disease prevention and health maintenance activities.

Degree Offerings

Master of Science (MSN) Family Nurse Practitioner

Program Outcomes MSN

The Family Nurse Practitioner degree prepares advanced-practice nurses to provide primary health care to clients, families and communities. Students take core and advanced courses covering theoretical foundations for nursing practice, advanced pathophysiology, advanced pharmacology, nursing research and advanced health assessment. Nurse practitioner specialty courses emphasize the care of women and children, adult, and geriatric patients and their families. The total number of credit hours required is 53, which includes 780 hours of clinical practice. The curriculum consists of 15 semester hours of core content, 11 semester hours of advanced practice core content, 21 semester hours of nurse practitioner specialty content, and 6 semester hours of either thesis or non-thesis option. Clinical experiences occur in urban and rural settings. This course of study prepares nurses to take the American Nurses Credentialing Center’s Family Nurse Practitioner Certification Examination or the American Academy of Nurse Practitioner Certification Examination.

Family Nurse Practitioner Outcomes:

• Interpret research findings to implement evidence based nursing practice.
• Appraise nursing and non-nursing theories to use in advance nursing practice.
• Demonstrate knowledge of the policy making process as it influences self, the profession and health care system.
• Integrate ethical decision-making theories into professional practice.
• Apply knowledge and skills that are essential for advanced nursing practice in a variety of settings and the emerging health care system.
• Develop an appreciation for human diversity in all clients and health care environments.
Formulate health promotion and disease prevention strategies that empower clients to maintain health and healthy lifestyles.

Incorporate professional values, accountability, and responsibility into advanced practice nursing.

**Master of Science (MSN) Nurse Administration**

The Nurse Administration degree prepares nurses to serve in a variety of leadership and managerial roles within the health care delivery system. The Nurse Administration curriculum consists of 15 semester hours of core content, 12 semester hours of nurse administration specialty content, 9 semester hours of electives in business or health informatics, or a combination, and 6 semester hours of either thesis or non-thesis option. Business courses provide the student the opportunity to learn business skills that further enhance their administrative backgrounds, where health informatics courses provide a background in the area of informatics. The course of study prepares nurses to take the American Nurses Credentialing Center’s Certification Examination in Nursing Administration, Advanced.

**Nurse Administration Outcomes:**

- Use an evidence-based approach in the management of client care and administration of health care services.
- Engage in collaboration, negotiation and consensus building to effect change in health policy decision.
- Evaluates personal-performance based on professional practice, standards, ethics, core values and organization criteria.
- Examines organizational, managerial and leadership concepts that impact health care delivery systems.
- Designs theory based strategies to resolve issues derived from dynamics that influence behaviors of individual groups.
- Use knowledge of health care administration to advance nursing practice and provide quality health care services.

**Master of Science (MSN) Nurse Education**

The Nurse Education degree prepares nurses to teach in a variety of settings including the teaching of patients and their families, nursing students, nursing staff and health consumers. In the Nurse Education courses, students gain necessary teaching knowledge and skills to prepare them to become nurse educators, a complex role that requires both pedagogical and clinical competency. The nurse education track requires students to complete 15 semester hours of core content, 15 semester credit hours in Nurse Education courses, 9 semester hours in advanced practice core courses, and 6 semester hours of either a thesis or non-thesis option. Two Practicum courses are required: classroom and clinical instruction (120 contact hours each) for a total of 240 hours. This course of study prepares nurses to take the National League for Nursing Certified Nurse Education Examination.

**Nurse Education Outcomes:**

- Use educational theories to design instructional strategies to achieve learning goals.
- Design and develop curricular and educational programs.
- Analyze the role of the nurse educator in preparing graduates for social, ethical, cultural and political issues which have an impact on nursing education.
- Evaluate outcomes of the educational process in both the classroom and clinical setting.
- Integrate technology based teaching strategies into curricular and educational programs.
- Exhibit evidence of leadership, scholarship, research, and lifelong learning.
- Assume the role of nursing educator in academia, health care institutions and the community.
- Use teaching best practices, literature and research best practices to improve curricula.

**Admission Requirements**

The general policies relating to admission of graduate students to the College of Nursing are consistent with those of the Graduate School. Applicants applying for admission to graduate study must hold a baccalaureate degree in nursing from a program accredited by the Accreditation Commission for Education in Nursing (ACEN) or the Commission on Collegiate Nursing Education (CCNE), hold a current unencumbered license as a registered nurse in the State of Texas or have an application for licensure in progress and be employed as a professional nurse for at least two years.

The applicant must also meet the following criteria for admission for graduate study in the College of Nursing:

1. Submit an application for admission and official transcripts covering all periods of enrollment in institutions of higher education to the Graduate School and the College of Nursing.
2. Satisfactorily complete a basic statistics course and a health assessment course if not included in the BSN program.
3. Possess a GPA of 2.75 on a 4.0 scale in the last 60 hours of coursework toward the undergraduate nursing degree and a minimum GPA of 3.0 (B average) in all prior graduate course work.
4. Submit Graduate Record Examination (GRE) scores that are within ten (10) years.
5. Submit three (3) letters of recommendation from professional nurses, one of which must be from a former nursing faculty.
6. Present a current resume or curriculum vita.
7. Verification of a negative criminal background check and drug screening tests.
8. Complete an individual interview with graduate faculty/committee.
9. Complete a satisfactory writing sample.

Post-Master’s Certificate

A Post-Masters Certificate is offered for all degree options: Family Nurse Practitioner, Nurse Administration, and Nurse Education. The Post-Masters Certificate is designed for nurses who have a master’s degree in nursing and desire to complete a course of study leading to a national certification and/or program specialty. (see each degree option for specific courses).

Admission criteria:

1. A master’s degree in nursing from an ACEN or CCNE accredited program
2. Official transcripts covering all periods of enrollment in institutions of higher education.
3. Current unencumbered licensure as a registered nurse in the State of Texas or application for licensure in progress.
4. A minimum cumulative GPA of 3.0 (B average) in all prior graduate course work.
5. Three (3) satisfactory professional nursing/academic letters of recommendation. One of which must be from a nursing faculty.
6. A current resume or curriculum vita.
7. Official documentation of a negative criminal background check and a drug screening test upon request.
8. An interview is required of qualified applicants.

Applicants who are certified Nurse Practitioners seeking a Post-Master’s Certificate as a Family Nurse Practitioner will be considered on an individual basis. In addition the applicant must meet the following criteria:

1. Must be recognized as a Nurse Practitioner in the State of Texas.
2. Submit proof of employment as a Nurse Practitioner.

Health Requirements

A physical examination, negative TB skin test or chest x-ray, proof of measles, mumps and rubella immunity, varicella immunity TDAP (blood titer or evidence of immunizations) and Hepatitis B, Hepatitis C vaccination are required for admission to the master’s program. Verbal history of disease is not accepted as proof of immunity. An annual TB skin test or chest x-ray, flu shot as well as physical exam are required of each student.

Professional Liability Insurance and CPR Certifications

Professional liability insurance and current certifications in cardiopulmonary resuscitation are required (American Heart Association). Students must provide evidence of current adult and child CPR certification. Liability insurance is purchased at registration through course fees.

Background Check and Drug Screening Policy

All students to submit to a criminal background check and drug screening prior to enrollment. Failure to submit to the criminal background check and drug screening will immediately nullify admission and enrollment in the graduate nursing program.

The screening will be honored for the duration of the student’s matriculation except (a) when the student has a break in enrollment or (b) the student engages in acts of academic misconduct as illustrated in the College of Nursing Graduate Student Handbook and the Panther Planner Code of Student.

Types of Admission

The Graduate Nursing Program accepts students in four different types of admission categories.

Graduate Degree Status (Unconditional)

A student admitted to this category has met all requirements for full graduate degree status (completed application and payment of applicable fee, Bachelor of Science Nursing degree from an accredited college or university, official transcripts from all universities attended, letters of recommendation; official GRE scores, undergraduate GPA of at least 2.75 on a 4.0 scale in the last 60 hours of course work, and a GPA of at least 3.00 on a 4.00 scale in all prior graduate coursework.

Provisional Status

Students may be considered for admission as provisional graduate students and must meet the terms of the provision within the first 12 semester credit hours after admission. Grounds for provisional admission include: (1) a GPA of less than 2.75 on a 4.0 scale in the last 60 hours of course work; (2) graduated with a Bachelor of Science Degree from a nursing school that is not accredited by ACEN or CCNE; and/or, (3) have not yet completed the GRE examination.

In order to continue, the student must have achieved a GPA of 3.0 after one year of study and be recommended by the department and college for graduate degree status or non-degree status. Official scores on the Graduate Record Examination (GRE) must be on file within the second semester.
of enrollment and may not be more than 10 years old at the time of enrollment. Failure to submit the GRE scores will result in an academic hold on registration.

Non-Degree (Transient) Status
A student who has a bachelor’s degree (minimum cumulative GPA of 2.75) and who wishes to take graduate courses without qualifying for a degree can be admitted as a Non-Degree (Transient) Student. Students must meet all course prerequisites in order to be admitted to advanced courses. Elevation to degree status must be recommended by the Director of Graduate Studies and approved by the Deans of the College of Nursing and Graduate School.

Cancellation of Admission
Admission will be cancelled automatically if an applicant is accepted by the University for a given semester and does not register for that semester. If the applicant wishes to undertake work at the University at a later date, he/she must file a new application, pay a new application fee, and meet the current requirements for admission. Materials supporting the application for admission, such as transcripts and test scores are retained by the Office of Graduate Admissions for one year and may be used during this time to support the requirements associated with a new application.

Transfer of Credit
Graduate credit earned at another accredited institution, not exceeding six (6) semester hours, may be considered transfer and applied toward the master’s degree. Only courses with a grade of “B” or better may be considered for transfer. An “A” grade from another institution may not be used to validate a grade of “C” earned at Prairie View A&M University. An official transcript denoting the transfer course(s), year, and grade received must be on file in the Office of the Registrar before acceptance of transfer credit is official.

Prairie View A&M University will not consider credits from other institutions to meet requirements for a graduate degree unless the institution offering the courses will allow these credits to be applied toward the requirements of an advanced degree on its own campus. Under no circumstances will transfer course work be considered that will be more than six (6) years old at the time the degree is awarded.

Substitutions
Substitution of courses must be approved by the Department Head of the Graduate Nursing Program. In order for courses to be considered as a substitution they must be taken at Prairie View A&M University. When making this request, the student must make a “B” or better in the course and submit the course syllabus.

Time Limit on Work for Master’s Degree
A student must complete requirements for the degree within six consecutive years after the first date of enrollment in the Graduate School. Credit for individual courses completed in residence between six and seven years before all requirements for the master’s degree are completed may be validated by special examination given by the department concerned. Courses completed in extension or at another institution beyond the time limit cannot be validated. A course in which a grade of “C” was earned cannot be validated. A validated course is valid as credit toward the master’s degree only during the term in which it is validated.

Grading System for Graduate Nursing Students

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
</tr>
<tr>
<td>B</td>
<td>81 - 89</td>
</tr>
<tr>
<td>C</td>
<td>75 - 80</td>
</tr>
<tr>
<td>D</td>
<td>65 - 74</td>
</tr>
<tr>
<td>F</td>
<td>Below 65</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>IP</td>
<td>Incomplete Passing</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory (For Thesis Option Only)</td>
</tr>
<tr>
<td>W</td>
<td>Withdrew Officially</td>
</tr>
</tbody>
</table>

Advisement/Registration
Students in the Graduate Nursing Program must be advised for each semester prior to registration. During the scheduled advisement session a student will complete a Registration Form for the semester. Both the advisor and student are required to sign this form. The Registration form also indicates that an advisement session was held with the student and there is agreement between both parties that the student will take the classes listed.

Progression
In order to successfully progress in the Graduate Nursing Program a student must remain in good standing. To remain in good standing a student must earn a grade of “B” or better in each course and maintain an overall GPA of 3.00.
Degree Plans
The student should file a degree plan within the first semester of matriculation in the university. Degree plan forms may be obtained by meeting with the major advisor. The major advisor, graduate program director, dean of the college and graduate dean review and approve the degree plan.

Admissions to Candidacy
The graduate student must complete the following minimum requirements to become a candidate for Master of Science Degree in Nursing:

1. Submit Graduate Record Examination (GRE) Scores that are within ten (10) years.
2. Submit an official Application for Admission to Candidacy Form showing the applicant’s successful completion of 12 semester hours of required graduate courses with an average of “B” or better.
3. Submit the application, to the Graduate Studies Director, Dean of the College of Nursing, and the Graduate School for final approval.

Change of Program/Major
Students who are in good academic standing with a cumulative GPA of 3.0 or higher in all course work are eligible to begin the process to change from one degree program to another. The following steps are required before the change can be made. The student must:

1. Consult the graduate major advisor in the proposed field of study.
2. Request and receive a letter of recommendation from the Coordinator of the program that the student is leaving.
3. File with the Graduate School an admission application, pay the application fee of $50.00, and submit three (3) letters of recommendation. One of the recommendations must come from the Coordinator of the program that the student is leaving.

Graduate students may not change programs or majors while on probation. If a student wants to be admitted to a different program (after the probation period), he/she must re-apply to the Graduate School through the accepting Graduate Advisor, Department head, and Academic Dean. The application will be subject to the approval of the Graduate School.

Concurrent Study for Two Different Degrees
A student pursuing a graduate degree program at Prairie View A&M University may not simultaneously enroll and complete course work for the purpose of meeting requirements for any other degree offered by this institution. Each degree must be completed in its entirety before work may be taken for the purpose of meeting requirements for a new degree.

Retention
In order to show satisfactory progress toward the masters degree in nursing, a student must meet the following criteria:

- Maintain a “B” average in all course work. A student who, in any two consecutive semesters or summer terms, has a cumulative grade point average below 3.00 is subject to academic dismissal upon recommendation of the Director of the Graduate Nursing Program to the Dean of the College of Nursing.

- Achieve a minimum grade of “B” in the Advanced Practice Core courses: Advanced Pathophysiology, Advanced Pharmacology, Advanced Health Assessment and all Specialty courses.

- A student may receive a grade of “I” (incomplete) in a course, under special circumstances and with the approval of the Dean, College of Nursing. The “I” must be removed before the end of one calendar year from the close of the term in which the grade was earned. This regulation does not apply to thesis and research credit courses but does apply to terminal project credit courses. A fee, payable to the registrar, is required for the change of grades.

- An “IP”, in progress, is assigned to thesis and projects provided the student remains enrolled and makes satisfactory progress as certified by the committee chair, dean, and director of the graduate program. The time allotted for removal of the “IP” shall be the same as the maximum time for completion of a degree or certificate.

- A student must complete requirements for the degree within six consecutive years after the first date of enrollment for graduate study.

- A student who chooses to withdraw from the College of Nursing Graduate Studies for any reason prior to the completion of a semester or summer term after having registered for classes is required to comply with the official withdrawal procedure as defined in the catalog section, “Withdrawal from a Course and from the University.”

Criteria for Graduation
To obtain the Master of Science Degree in Nursing from Prairie View A&M University, the student must:
1. File a degree plan with the Graduate School.
2. Successfully complete the semester credit hours of required course work with an average of “B”. (Minimum "B" grade in all courses)
3. Meet all the general requirements for graduation as outlined in the University’s Graduate Catalog.

A student will not graduate with a "C" grade in any Graduate Nursing course.

**Application for Graduation**

A student who plans to receive a degree from Prairie View A&M University must apply for graduation. Students are to apply by the published deadline available on the website for each graduation semester (fall, spring or summer). The application for graduation for any student submitted after the published deadline for that semester will be processed for graduation for the following semester.

To start the process, secure the application for graduation form from the Office of the Registrar’s webpage at www.pvamu.edu/registrar . Proceed to your academic department for appropriate approval/signatures. A fee is required as part of the application process and will be billed to the student at the time the approved application is submitted to the Office of the Registrar. Payment of the application fee is to be submitted to the Office of Treasury Services. Students that apply for graduation that are not enrolled for the term in which they plan to graduate will be charged an absentia fee. Finally, Students receiving financial aid must participate in the financial aid exit loan process and should visit the Office of Student Financial Aid for assistance.

Students who are indebted to the University will not be allowed to participate in the commencement exercises. The degree will be posted, if earned, but the transcript and diploma will be withheld until the debt is paid.

**Withdrawal Policy**

Students are allowed only **TWO** withdrawals (W) from required nursing courses. For example, a withdrawal from one course twice constitutes **TWO** withdrawals; or a withdrawal from two different courses constitutes **TWO** withdrawals. Withdrawal from a course that is a companion to a co-requisite course will constitute **ONE** withdrawal if the grade is passing in one of the above courses. A third withdrawal from any one or more courses will result in DISMISSAL from the nursing program.

**Re-Admission**

An application for readmission to the Graduate School is required for an applicant or student in one of the following categories:

1. An applicant who was previously admitted to the University but did not enroll in the term stated in the acceptance letter.
2. A graduate student at Prairie View A&M University who was accepted into one degree program but wishes to enter another degree program.
3. Degree candidates and non-degree students who have not enrolled in courses for two consecutive years.
4. A graduate student who voluntarily withdraws from the university.

**Note:**

- In the four cases mentioned above students/applications/degree candidates/non-degree students generally must complete and submit: Application, Fee of $50.00, and three (3) letters of recommendation.
- Applications who have admitted to the program but did not enroll will not have to pay the application fee again if they desire to start the program within the academic year they have applied. The application fee originally sent is good for one academic year. Beyond one academic year and the application did not enroll they will be required to submit an entire application packet along with the fee of $50.00 for admission to the program.
- A student who wants to change a major must also submit three (3) letters of recommendation and pay the application fee of $50.00. One of the recommendations must come from Coordinator of the program that the student is leaving.

**Reactivation**

Reactivation is a type of re-admission to the Graduate School. Continuing students who have sat out the program for no more than two (2) years and want to return must be reactivated into the university system. In addition, the student must be in good academic standing have no withdrawals from the last semester attended. This request must be made through the coordinator or academic advisor for completion.

**Re-Evaluation of Credentials**

Re-evaluation of credentials is a status change for students who were not accepted as graduate degree status (an unconditional acceptance). These are students who received a special acceptance or have been provisionally accepted into the program. Students must have their credentials re-evaluated before completing twelve (12) credit hours of course work. If a student was accepted with a GPA lower than 2.75: 12 credit hours will need to be completed, a GPA of 3.0 or better, and GRE Scores submitted (if this has not been submitted already). The request for re-evaluation of credentials must be submitted before the 12th class day for the semester desired for it to be applied as an official status change.
Probation

1. Students are placed on probation when they have one or more of the following:
   a. Are admitted provisionally.
   b. Have a cumulative GPA of less than a 3.0 in a given term or semester.
   c. Receive a grade of “C” or below in any course.
2. Students are allowed one opportunity to retake only one course in which a grade of “C” is earned.
3. Students will receive written notification of the academic probation status.

Academic Dismissal

Students shall be dismissed from the master’s program for any one of the following reasons:

1. A grade of “C” or below is received in any two courses or the same course twice.
2. Failure to meet the provision(s) of probation.
3. Failure to maintain a cumulative GPA of less than 3.0 in two consecutive terms or semesters.
4. Academic and/or professional misconduct
5. Third withdrawal from a course.

Grievance Appeals

A student who encounters problems arising from course matriculation’s, advancement to candidacy, degree requirements, or general regulations should follow the academic appeal procedure that starts with the academic advisor. If a student wishes to appeal the decision, the Dean may refer the matter to an appeals panel for investigation and a recommended course of action. Appeals that move beyond the Dean, College of Nursing, should be referred to the Office of Graduate Programs who may refer the matter to the Provost and Senior Vice President for Academic Affairs.

Unresolved conflicts occurring within the student/faculty body which do not fall within the realm of the academic appeals process may be filed as a grievance. The grievance procedure is written in the university’s student handbook.

Master of Science in Nursing Degree Programs

MSN-Family Nurse Practitioner Degree Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5003</td>
<td>Transcultural Family Health Care in Rural and Urban Settings</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5013</td>
<td>Theoretical Foundations of Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5133</td>
<td>Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5713</td>
<td>Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>CNSL 5093</td>
<td>Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5042</td>
<td>Role Theory and Ethics in Advanced Practice Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 5163</td>
<td>Advanced Pathophysiology for Advance Practice Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5173</td>
<td>Advanced Pharmacology for Advance Practice Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5263</td>
<td>Advanced Health Assessment and Diagnostic Reasoning for Advanced Practice Nursing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following options:

The Thesis Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5803</td>
<td>Thesis Proposal Writing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5903</td>
<td>Thesis</td>
<td>3</td>
</tr>
</tbody>
</table>

Non-Thesis Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5783</td>
<td>Research Capstone Project</td>
<td>3</td>
</tr>
</tbody>
</table>

One Elective Course

Total Hours: 53
### Post-Master's Certificate - Family Nurse Practitioner

**Graduate Core Course**

**Advanced Practice Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5042</td>
<td>Role Theory and Ethics in Advanced Practice Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 5163</td>
<td>Advanced Pathophysiology for Advance Practice Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5173</td>
<td>Advanced Pharmacology for Advance Practice Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5263</td>
<td>Advanced Health Assessment and Diagnostic Reasoning for Advanced Practice Nursing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Nurse Practitioner Specialty Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5216</td>
<td>Primary Health Care for the Childbearing/Childrearing Family with Practicum</td>
<td>6</td>
</tr>
<tr>
<td>NURS 5245</td>
<td>Primary Health Care for the Adult and Elderly with Practicum</td>
<td>5</td>
</tr>
<tr>
<td>NURS 5257</td>
<td>Management of Complex Health Problems</td>
<td>7</td>
</tr>
<tr>
<td>NURS 5763</td>
<td>Financial Management in Advanced Nursing Practice</td>
<td>3</td>
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</table>

**Total Hours**

1 Advanced Practice Courses must be taken if not completed within the past 5 years. Transfer credits may be accepted for the Advanced Practice Courses. Nurses that are recognized as Advanced Practice Nurses are required to take the Nurse Practitioner Specialty Courses (20hrs).

### MSN-Nurse Administration Degree Requirements

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5003</td>
<td>Transcultural Family Health Care in Rural and Urban Settings</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5013</td>
<td>Theoretical Foundations of Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5133</td>
<td>Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5713</td>
<td>Health Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNSL 5093</td>
<td>Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>JJUS 5963</td>
<td>Applied Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

**Nurse Administration Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5403</td>
<td>ADM I-Organizational Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5413</td>
<td>ADM II-Healthcare Management</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5433</td>
<td>ADM IV - Nurse Administration Practicum</td>
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</tbody>
</table>

**Graduate Business or Health Informatics Electives**

Examples of Business courses include:

Select three of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 5003</td>
<td>Concepts of Economic Analysis</td>
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<tr>
<td>MRKT 5303</td>
<td>Marketing Management</td>
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<tr>
<td>MGMT 5103</td>
<td>Organizational Behavior</td>
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<tr>
<td>MGMT 5343</td>
<td>Human Resource Management</td>
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<tr>
<td>MGMT 5353</td>
<td>Entrepreneurship and Innovation</td>
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Examples of Health Informatics:

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<thead>
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<th>Hours</th>
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<tbody>
<tr>
<td>NURS 5443</td>
<td>Health Informatics I</td>
<td></td>
</tr>
<tr>
<td>NURS 5453</td>
<td>Health Informatics II</td>
<td></td>
</tr>
<tr>
<td>NURS 5463</td>
<td>Health Informatics III</td>
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Select one of the following options:

**Thesis Option**

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</thead>
<tbody>
<tr>
<td>NURS 5803</td>
<td>Thesis Proposal Writing</td>
<td></td>
</tr>
<tr>
<td>NURS 5903</td>
<td>Thesis</td>
<td></td>
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**Non-Thesis Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5783</td>
<td>Research Capstone Project</td>
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</tr>
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</table>

One NURS Elective

**Total Hours**

42
### Post-Master’s Certificate - Nurse Administration

**Nurse Administration Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<td>NURS 5413</td>
<td>ADM II-Healthcare Management</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5433</td>
<td>ADM IV - Nurse Administration Practicum</td>
<td>3</td>
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</table>

**Graduate Business Courses or Health Informatics Electives**

9

Total Hours 21

### MSN-Nurse Education Degree Requirements

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Clinical Research</td>
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<td>NURS 5713</td>
<td>Health Policy</td>
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**Clinical Core Courses**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NURS 5023</td>
<td>Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5033</td>
<td>Advanced Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5243</td>
<td>Advanced Health Assessment</td>
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**Nurse Education Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5303</td>
<td>Program &amp; Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5313</td>
<td>Instructional Methods &amp; Strategies</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5323</td>
<td>Evaluation in Nursing Education</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5333</td>
<td>Nursing Education Role Practicum I: Classroom Instruction</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5353</td>
<td>Nursing Education Role Practicum II: Clinical Instruction</td>
<td>3</td>
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</table>

Select one of the following option:

**Thesis Option**

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</thead>
<tbody>
<tr>
<td>NURS 5783</td>
<td>Research Capstone Project</td>
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One Elective Course

Total Hours 45

### Post-Master’s Certificate - Nurse Education

**MSN Clinical Core Courses**

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<tr>
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<th>Hours</th>
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<tbody>
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<td>NURS 5023</td>
<td>Advanced Pharmacology</td>
<td>3</td>
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<td>NURS 5243</td>
<td>Advanced Health Assessment</td>
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**Nurse Education Courses**

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<td>3</td>
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<tr>
<td>NURS 5323</td>
<td>Evaluation in Nursing Education</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5333</td>
<td>Nursing Education Role Practicum I: Classroom Instruction</td>
<td>3</td>
</tr>
<tr>
<td>NURS 5353</td>
<td>Nursing Education Role Practicum II: Clinical Instruction</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 24
Distance Education Programs

The central purpose of Distance Education at Prairie View A&M University is the elimination of geographical distance and time as barriers to access to quality courses and programs. Current course offerings include accounting, education administration, counseling, community development, communications, computer science, curriculum & instruction, economics, educational foundation, educational leadership, English, finance, human development, history, health, juvenile justice, psychology, mechanical engineering, management, marketing, management information systems, nursing, political science, sociology, Spanish, speech, special education and supervision.

As a support service for the academic enterprise, the office of Distance Learning works collaboratively across the university community to:

- Electronically extend the campus of Prairie View A&M University through the NORTHSTAR and TTVN Telecommunications Networks for video delivery and through Moodle for online course delivery;
- Provide an open learning environment where teaching and learning occur anytime and anyplace;
- Share the practical applications of the university's knowledge and expertise to benefit society and support the economic growth and vitality of the local community;
- Provide training for faculty and staff involvement in Distance Learning;
- Increase Prairie View A&M University's access to the world and the world's access to the University;
- Research Distance Learning environments and emerging academic technologies.

Distance Education and Moodle courses are listed in the PantherTracks and may also be accessed through eCourses.pvamu.edu.

Approved Programs:

- RN-BSN Completion
- MSN-Family Nurse Practitioner
- MSN- Nurse Education
- MSN- Nurse Administration

Distance Sites:

- Northwest Graduate Center, Houston, TX

Doctor of Nursing Practice (DNP) Goals

The graduates from the Doctor of Nursing Practice (DNP) program will be prepared for leadership in direct patient care and system-based care roles. The post master’s entrance for the PVAMU DNP program will build on the professional nurse’s depth and scope of knowledge and information management to become adept in the application of evidence-based science to practice. DNP graduates will be experts in directing care for quality improvement and the management of information and organizations of individuals and populations. The acquisition of advanced knowledge and clinical judgment will afford society a fully educated nurse leader who champions care and accountability in delivering care for population outcomes. Overall, the PVAMU DNP program will position the graduate in exhibiting transformational leadership to effect and generate health policy development, evidence-base practice careers, and evaluation in collaboration with inter-professional teams and partnerships.

The program integrates three substantive dimensions of practice-focused doctoral education making it uniquely responsive to current trends and needs in nursing and healthcare. First, it focuses on the development of leaders who will have skills in translating advanced knowledge to decrease health disparities and improve health outcomes of diverse populations. Secondly, the graduate of the program will be a nurse leader who is able to transform health care and organizational systems through the role of advanced practice nurse (practitioner). Finally, the graduate of the program may also practice in academia; thus addressing the urgent need for nursing faculty.

Program Outcomes

Upon completion of the program, graduates will be prepared to:
• Use theory, research, and science as the foundation for expert practice in the leadership roles of advanced practice nursing and education.
• Collaborate with inter-professional teams in developing and implementing health care policies to effect change related to social, economic, political and ethical issues.
• Use information systems technology to effect the improvement in health care quality and the transformation of health care.
• Apply transformational leadership skills in organizational systems to effect change in health care outcomes of individuals and populations in diverse environments.
• Improve the health outcomes of individuals and populations by decreasing disparities in health care delivery.
• Contribute to the translation of nursing science in the role of advanced practice nurse and/or faculty.

Admission Requirements
Applicants applying for admission to the DNP Program must have:

An earned master’s degree in nursing from a program accredited by the Accreditation Commission for Education in Nursing (ACEN) or the Commission on Collegiate Nursing Education (CCNE)

• Hold a current license as a registered nurse in the State of Texas or have proof of licensure in another state; and have an unencumbered license to practice nursing
• An official transcript of all academic work (undergraduate and graduate) from each college or university previously attended
• A minimum of 3.00 on a 4.0 scale during undergraduate studies, and a minimum of 3.30 during master’s degree graduate studies
• Completed master’s level courses in nursing research and advanced statistics within the last five (5) years
• A Graduate Record Examination (GRE) score that is within five (5) years: Analytical Writing 3.5
• Three (3) letters of recommendation, one of which must be from a faculty member in a nursing program
• A current resume or curriculum vita
• Documentation of a completed state and/or federal background check, including fingerprints
• An interview with the program admission committee members and provision of a writing sample prior to interview.
• National Certification and recognition by a US Board of Nursing as an advance practice nurse (FNP)
• A scholarly writing sample (e.g., thesis, publication, professional paper, or proposal)
• Strong commitment for program completion and leadership in an advanced nursing practice role

Applicants, who have not completed a graduate statistics course or master’s level course in nursing research in less than five years, will be required to complete one master’s level nursing research and/or advanced statistics course before or upon entering the DNP sequence of courses. Satisfactory performance with a minimum grade of “B” will be required, and the student must complete the nursing research and/or statistics course within the first semester of enrollment in the program.

Advisement/Registration
Upon admission to the DNP Program, the student will be assigned to a faculty advisor. Students may be paired with more than one mentor, depending upon their professional and academic needs. The faculty advisor will work with the student to coordinate the selection of mentor(s).

Transfer of Graduate Courses from Other Universities
In accordance with the Office of Research and Graduate Studies and the College of Nursing, transfer students will have to satisfy the same criteria for admission as listed for initial applicants. The transference of graduate credit earned from another accredited institution will not exceed six credit hours with a minimum grade of “B” and will be subjected to the preference of the College of Nursing Office of Admissions and Student Services.

Validation of MSN Practicum/Clinical Hours
DNP applicants must provide evidence of the number of clinical practice hours they completed in their master’s educational programs (Family Nurse Practitioner). Applicants must submit one of the following:

• A letter of verification from an appropriate nursing administrator responsible for the master’s program from which the student graduated. The letter shall indicate the total number of practicum hours completed by the student during the program of study and be notarized by the university’s registrar’s office. This number is then used toward the required minimum of 1,000 hours of practice post-baccalaureate.
• A letter from a national nursing certification agency attesting to the minimum number of clinical practicum hours required for certification in the student’s advanced nursing practice area at the time that the student was certified. The student is credited with the identified minimum number of practicum hours which is used towards the required minimum of 1,000 hours of practice post-baccalaureate.

Documentation of prior practicum hours in an advanced practice program provided will be reviewed by the Program Director for acceptance towards clinical hour requirements in the program. This review will be conducted after the student has accepted admission to the program and prior to the
second week of the first semester of enrollment. The student will meet with the Director to sign the Determination of DNP Clinical Hours form to document that the student has been duly informed.

**Fees and Tuition**

Fees are subject to change. Current information about PVAMU fees and tuition can be found on the university’s website: [http://www.pvamu.edu/pages/4174.asp](http://www.pvamu.edu/pages/4174.asp)

**Financial Assistance**

The College of Nursing offers a limited number of graduate assistantships, research assistants, and scholarships to qualified full-time students. Students interested in applying for financial assistance can visit the PVAMU Financial Aid Office website: [http://www.pvamu.edu/pages/1630.asp](http://www.pvamu.edu/pages/1630.asp)

**Time Limit on Work for Doctorate Degree**

The DNP is a practice doctorate. Therefore, students are advised to complete the program in the prescribed period - full-time status within five (5) semesters (including one summer) or two years and part-time status complete the course work within seven (7) semesters (including two summers). All work toward the DNP degree must be completed within six (6) years.

**Progression in the Program**

**Good Standing**

Doctoral students remain in good standing when they maintain a minimum graduate GPA of 3.0 for coursework. Only grades of “B” or better count toward coursework and dissertation hours.

**Reactivation in the Program**

Reactivation to the program will be handled on a case by case basis.

**Dismissal from the Program**

Students shall be dismissed from the doctoral program for any one of the following reasons:

- An earned grade less than a grade of “B” in any required or elective course.
- Failure to maintain a minimum doctorate GPA of 3.0 in coursework
- Academic and/or professional misconduct

**Instruction Mode of Delivery**

The DNP courses will be offered using the hybrid or blended learning methodology. Every course will be accessible through the University’s Moodle/E-Course platform (syllabi, hand-outs, videos, Power Point presentations, students’ delivery in posting of papers and assignments, faculty’s evaluations of students’ assignments, chat rooms and discussion forums, etc.). It is therefore the student’s responsibility to periodically check their email and course web pages for the latest information.

**Doctor of Nursing Practice (DNP) Project Advisory Committee**

The DNP project will be completed with the structure and guidance of an advisory committee. The DNP Project Committee will be comprised of the chair and at least two other members (nursing faculty and an outside member). The chair and committee members will be officially approved by the Dean of the College of Nursing, as per a written request submitted by the student via a signed “Consent to Serve” form. The chair will serve as the lead committee member and will be responsible for supervising the student’s advisement and progress.

**Doctor of Nursing Practice (DNP) Project**

The DNP project is a culmination of the knowledge gained in the DNP courses and results in a practice-related written product in which the student demonstrates use of evidence in nursing science and translation of findings into practice. The project will provide the student an opportunity to apply advanced theoretical, policy and specialty knowledge in practice and systems level experiences. The DNP project will be completed with the structure and guidance of an advisory committee. The written product will be acceptable for sharing through peer refereed publications and presentations at local, state and national professional conferences.

**The Practice Residency**

The practice residency is designed to help the student achieve the learning objectives of the program and specialty competencies through meaningful opportunities for student engagement. Learning experiences will be designed to assist the learner in building and assimilating knowledge for advanced specialty practice at a high level of complexity, and will include in depth work with experts from nursing as well as other disciplines (inter-professionals). The Nurse Practitioner students will complete a minimum of 1000 supervised practice hours. The supervised practicum hours completed in the students’ MSN program will be included in the minimum number of hours.
Grading System for Doctor of Nursing Practice Students

<table>
<thead>
<tr>
<th>Grade</th>
<th>Meaning</th>
<th>Score Range</th>
<th>Grade Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>95-100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>85-94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>75-84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>65-74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>below 65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Admission to Candidacy

It is the student’s responsibility to petition for advancement to candidacy. Forms are available in the DNP Program Office. The student must apply for candidacy when enrolled in the last required core or elective course (except DNP Project and Residency). To be advanced to candidacy, students must have completed all of the following requirements and/or procedures:

- Achieved a cumulative grade-point average no lower than 3.00 in program coursework.
- Completed all coursework with no grade lower than “B”.

The admission to graduate study does not imply “advancement to candidacy” for the doctoral degree.

Degree Program Requirements

Students who enter the Doctor of Nursing Practice Program will be required to complete 39 hours after the Master’s degree and 1000 clinical hours of practicum (includes MSN practicum hours).

Core Courses (21 SCH)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 7013</td>
<td>Nursing Science and Complex Systems</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7023</td>
<td>Leadership in Complex Health Systems</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7033</td>
<td>Health Care Policy for Advocacy in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7043</td>
<td>Health Informatics: Systems Management of Health Data</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7053</td>
<td>Evidence-based practice (Qualitative &amp; Quantitative Methods)</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7143</td>
<td>Analytical Approaches to Outcomes Management: Individuals and Populations</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7243</td>
<td>Translating Evidence into Advanced Nursing Practice</td>
<td>3</td>
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Project (6 SCH)

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<tbody>
<tr>
<td>NURS 7253</td>
<td>DNP Project 1</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7263</td>
<td>DNP Project 2</td>
<td>3</td>
</tr>
</tbody>
</table>

Practicum (6 SCH)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 7383</td>
<td>Practice Residency I</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7393</td>
<td>Practice Residency II</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

6

Total Hours 39

Marvin D. and June Samuel Brailsford College of Arts and Sciences

Mission Statement

The Marvin D. and June Samuel Brailsford College of Arts and Sciences is committed to serving all students through academic programs aimed at developing creative thinking, critical analysis, problem solving, and communication skills that are fundamental to intellectual development and professional success. Equally important is the College’s commitment to developing students’ ethical and civic standards. The College strives to integrate teaching and research in the context of interdisciplinary learning through individual attention to students, innovative strategies of teaching, effective use of technology, and the promotion of economic development, partnerships, and cultural pursuits. An innovative and responsive spirit guides the College, balancing access and quality with efficiency, diversity, and a commitment to partnerships with local and global communities.

The College’s departments and programs are aligned with the university’s threefold missions: teaching, research, and service.
Admission to the Marvin D. and June Samuel Brailsford College of Arts and Sciences

Admission is based on the University's general academic requirements. Applicants must also meet specific department requirements for each major. Transfer students must first meet all University admission requirements. Transfer credits toward the major or minor must be approved by the department head and dean of the college in which the program is located.

The student seeking admission to the graduate program(s) is required to:

1. Submit a formal application for admission to the Graduate School. See Admissions Section for deadline dates and requirements. Formal application for admission to graduate studies is made to the Office of Graduate Programs. Students should also consult specific departments for degree requirements.
2. Meet all requirements outlined by the graduate school for a degree status.
3. Applicants admitted to the university Graduate School must also be admitted by the college or department in which the student plans to pursue a degree. Students should consult the catalog section covering the specific discipline for departmental requirements for admission.

Instructional Organization

The Brailsford College of Arts and Sciences offers courses leading to degrees in six departments and one division. The first two years’ work is designed to give students a general educational background and to provide the knowledge and intellectual skills required for more advanced studies. During the last two years of college work, students choose a concentration in a major field. Opportunities are available for cultivating related interests and for pursuing electives that do not fall within the field of the student’s major.

All freshman and sophomore students in the Brailsford College of Arts and Sciences, unless specifically authorized by the department head and the dean before registration, are required to follow the prescribed courses as set forth in the catalog. Students should plan their course of study with the department head or advisor and should consult the advisor before each registration period.

The following degrees are offered in the Brailsford College of Arts and Sciences:

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BS</td>
</tr>
<tr>
<td>Chemistry</td>
<td>BS &amp; MS</td>
</tr>
<tr>
<td>Communications</td>
<td>BA</td>
</tr>
<tr>
<td>English</td>
<td>BA</td>
</tr>
<tr>
<td>History</td>
<td>BA</td>
</tr>
<tr>
<td>Mathematics</td>
<td>BS</td>
</tr>
<tr>
<td>Music</td>
<td>BA</td>
</tr>
<tr>
<td>Political Science</td>
<td>BA</td>
</tr>
<tr>
<td>Physics</td>
<td>BS</td>
</tr>
<tr>
<td>Social Work</td>
<td>BSW</td>
</tr>
<tr>
<td>Sociology</td>
<td>BA &amp; MA</td>
</tr>
<tr>
<td>Army ROTC</td>
<td></td>
</tr>
<tr>
<td>Naval ROTC</td>
<td></td>
</tr>
</tbody>
</table>

College Academic Requirements

Students pursuing an undergraduate degree in the Brailsford College of Arts and Science may satisfy the language requirement through course work or examination. Credit by examination may be by Advanced Placement (AP) or College Level Examination Program (CLEP).

Major and Minor Requirements

After completion of the sophomore year, all students enrolled in the College of Arts and Sciences should have selected a major. Some majors do not require a minor and students may graduate without a minor. A minor (if required) must also be chosen from a department or college of the student’s choice. The selections should be made in consultation with the department head or a designated advisor. Students must earn a minimum grade of a “C” in all classes taken in their major disciplines and a minimum grade of a “C” in all classes taken in their minor disciplines (if applicable). A specific grade point average may also be required by the department in which the student is a major or a minor before the student is approved for graduation. Transfer credits toward the major or minor must be approved by the department head and dean of the college in which the program is located.

Minimum Total Credit Hours for Graduation

Students must complete a minimum of 120 semester credit hours (or as specified by each degree program) with at least a cumulative grade point average of 2.00 in the major field of study in order to earn a bachelor’s degree. Students must review the requirements for each degree program outlined in the catalog.
Honor Societies

<table>
<thead>
<tr>
<th>Society</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha Delta Mu</td>
<td>Social Work</td>
</tr>
<tr>
<td>Alpha Mu Gamma</td>
<td>Foreign Languages</td>
</tr>
<tr>
<td>Alpha Psi Omega</td>
<td>Drama</td>
</tr>
<tr>
<td>Beta Beta Beta</td>
<td>Biology</td>
</tr>
<tr>
<td>Beta Kappa Chi</td>
<td>Sciences and Mathematics</td>
</tr>
<tr>
<td>Lambda Pi Eta</td>
<td>Communications</td>
</tr>
<tr>
<td>Mu Alpha Sigma</td>
<td>Music</td>
</tr>
<tr>
<td>Pi Mu Epsilon</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Pi Sigma Alpha</td>
<td>Political Science</td>
</tr>
<tr>
<td>Sigma Delta Pi</td>
<td>Spanish</td>
</tr>
<tr>
<td>Sigma Pi Sigma</td>
<td>Physics</td>
</tr>
<tr>
<td>Sigma Tau Delta</td>
<td>English</td>
</tr>
<tr>
<td>Phi Alpha Theta</td>
<td>History</td>
</tr>
</tbody>
</table>

Army Reserve Officers Training Corps

Purpose and Goals

The mission of the Army ROTC program is to prepare college students for professional careers as United States Army Officers. The faculty and staff in the department are dedicated military and civilian personnel committed to producing the highest caliber leaders for the nation.

The experience and training provided by Army ROTC separates ROTC graduates from their peers. Army ROTC Cadets are taught to be leaders and are provided hands-on experience in managing physical, financial, and human resources. Our cadets often possess a higher level of self-confidence and superior decision-making skills. The challenge of developing leaders to manage resources and command units equipped with state-of-the-art equipment forms the basic foundation of the military science curriculum.

Qualified students interested in earning a commission are encouraged to apply for an Army ROTC Scholarship. In addition to tuition, the scholarship pays educational fees, provides $1200 for books per year and provides the cadet a $300-$500 stipend for each month of the school year. Scholarships are available for two, three, and four year periods.

The four-year Army ROTC program is divided into two phases: the Basic Course and the Advanced Course. The Basic Course is taken during the first two years of college and is offered with no military obligation. It covers topics such as leadership development, individual military skills, and military customs/traditions. A student who demonstrates the potential to become army officers and who meet the physical and scholastic standards are eligible to enroll in the Advanced Course. It covers the final two years of college and includes a five-week course held during the summer between the junior and senior years. Cadets receive instruction in management, tactics, professionalism, ethics, and advanced leadership skills. While enrolled in this course, a cadet receives a stipend ranging from $300-$500 per month for up to 10 months of the school year and approximately $900 for attending the Cadet Leadership Course (CLC).

Commissioning Program

Completion of Army ROTC qualifies the student for a commission as a second lieutenant in the United States Army and a minor in Military Science.

Special Emphasis Options

Cadets enrolled in Advanced Army ROTC are required to complete a Professional Military Education (PME) component consisting of three essential parts: a baccalaureate degree: Army ROTC Advanced Courses Program and American Military History Course. Credits received through Army ROTC may be included as a part of their individual academic degree program.

Military science students may select military science courses as free electives.

Army ROTC cadets are required to participate in physical training (calisthenics) periods, as well as field-training exercises as part of the leadership laboratory.

Prior Service or JROTC experience

Students with a good record of prior military service or with four years of Junior ROTC experience may receive constructive credit for the basic course and may be allowed to enroll in the advanced course. Students with such experience and who are interested in enrolling should contact the Professor of Military Science prior to the start of their sophomore year.
Internship: Leader's Training Course

Students without any prior military service may receive constructive credit for the basic course by attending and successfully completing a summer internship called the Cadet Initial Entry Training (CIET) at Fort Knox, Kentucky. The internship is a four-week training program conducted during the summer months and is designed to orient students to the U.S. Army. The training develops and evaluates their officer leadership potential, and qualifies them for enrollment in the ROTC Advanced Course program. The student graduates from the summer internship with increased confidence, self-discipline and decisiveness developed through physical and academic challenges. Participants will receive approximately $900 for the internship. Students not enrolled in ROTC and who have completed a minimum of sixty credit (60) hours may attend the Leader’s Training Course. Students who successfully complete the training can receive four (4) hours of constructive credit and qualify for an Army ROTC two-year scholarship.

Extra Curricular Activities

The Panther Battalion has its own Ranger Challenge Team, a varsity-level team that competes against other universities in military skills events.

The department periodically sponsors other activities including; rappelling demonstrations, ranger weekends, road marches, leadership exercises, adventure training, land navigation exercises, patrolling, and survival skills training.

Military science students may substitute the following courses for one semester hour of physical education activity requirements in the general education program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY 1171</td>
<td>Leadership Laboratory I</td>
</tr>
<tr>
<td>ARMY 1181</td>
<td>Leadership Laboratory II</td>
</tr>
<tr>
<td>ARMY 2271</td>
<td>Leadership Laboratory III</td>
</tr>
<tr>
<td>ARMY 2281</td>
<td>Leadership Laboratory IV</td>
</tr>
<tr>
<td>ARMY 3371</td>
<td>Leadership Laboratory V</td>
</tr>
<tr>
<td>ARMY 3381</td>
<td>Leadership Laboratory VI</td>
</tr>
<tr>
<td>ARMY 4471</td>
<td>Leadership Laboratory VII</td>
</tr>
<tr>
<td>ARMY 4481</td>
<td>Leadership Laboratory VIII</td>
</tr>
</tbody>
</table>

Advanced Course Admission Requirements

Prerequisites: Students must complete the basic course (ARMY 1111, ARMY 1121, ARMY 1171-ARMY 1181, ARMY 2203 (May substitute HIST 1313 or HIST 1323) and ARMY 2271-2281) or receive constructive credit prior to enrolling in the advanced course (ARMY 3313, ARMY 3371, ARMY 3323, ARMY 3381, ARMY 4413, ARMY 4423, ARMY 4471, and ARMY 4481). Students with prior military service or four years of JROTC experience may be eligible for constructive credits and advanced placement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY 3313</td>
<td>ARMY 1111, ARMY 1121, ARMY 1171-1181, ARMY 2212, ARMY 2222, and ARMY 2271-2281, completion of the Leadership Training Course (LTC); prior service or have completed four years of junior ROTC in high school.</td>
</tr>
<tr>
<td>ARMY 4413</td>
<td>ARMY 3313, ARMY 3371, ARMY 3323, ARMY 3381</td>
</tr>
</tbody>
</table>

Commissioning Program Requirements

A cadet must satisfy the following requirements in order to be commissioned:

Complete or receive constructive credit for 16 hours of Military Science courses.

Option 1. Four-year Program (Students entering ROTC program as freshmen):

Military Science Courses 26
Satisfactorily complete Cadet Leadership Course
Demonstrate proficiency in military history.

<table>
<thead>
<tr>
<th>Course</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY 2203</td>
<td>Military History (May substitute HIST 1313 or HIST 1323)</td>
</tr>
</tbody>
</table>

Total Hours 26

Option 2. Two-year Program (Students entering the ROTC program as juniors):

Complete Summer Internship Program (Cadet Initial Entry Training)

Military Science Courses 16

<table>
<thead>
<tr>
<th>Course</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY 2203</td>
<td>Military History (May substitute HIST 1313 or HIST 1323)</td>
</tr>
</tbody>
</table>

Total Hours 19
**Option 3. Prior Service or Junior ROTC Program:**

**Military Science Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY 2203</td>
<td>Military History (May substitute HIST 1313 or HIST 1323)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor Field Requirements**

Receive a minimum grade of "C" in all Military Science Courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMY 3313</td>
<td>Principles and Techniques of Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>ARMY 3323</td>
<td>Leadership Skills and Small Unit Tactics</td>
<td>3</td>
</tr>
<tr>
<td>ARMY 3371</td>
<td>Leadership Laboratory V</td>
<td>1</td>
</tr>
<tr>
<td>ARMY 3381</td>
<td>Leadership Laboratory VI</td>
<td>1</td>
</tr>
<tr>
<td>ARMY 4413</td>
<td>Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>ARMY 4423</td>
<td>Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td>ARMY 4471</td>
<td>Leadership Laboratory VII</td>
<td>1</td>
</tr>
<tr>
<td>ARMY 4481</td>
<td>Leadership Laboratory VIII</td>
<td>1</td>
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</tbody>
</table>

**Total Hours:** 16

---

**Military Science Curriculum**

**Freshman**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>ARMY 1111</td>
<td>1</td>
</tr>
<tr>
<td>ARMY 1171</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>1 ARMY 1121</td>
<td>1</td>
</tr>
<tr>
<td>1 ARMY 1181</td>
<td>1</td>
</tr>
</tbody>
</table>

**Sophomore**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>ARMY 2212</td>
<td>2</td>
</tr>
<tr>
<td>ARMY 2271</td>
<td>1</td>
</tr>
<tr>
<td>ARMY 2203</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
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</tbody>
</table>

**Junior**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>ARMY 3313</td>
<td>3</td>
</tr>
<tr>
<td>ARMY 3371</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>3 ARMY 3323</td>
<td>3</td>
</tr>
<tr>
<td>1 ARMY 3381</td>
<td>1</td>
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</tbody>
</table>

**Senior**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>ARMY 4413</td>
<td>3</td>
</tr>
<tr>
<td>ARMY 4471</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Hours: 29**

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**Biology**

**Purpose and Goals**

The curricula of the Department of Biology are designed to provide students with a wealth of biological knowledge. The department prepares students for careers as biologists and biology educators. The department also provides the undergraduate foundation for students who plan to pursue professional studies leading to the Doctorate in Medicine, Dentistry, Veterinary medicine, Optometry, Pharmacy, Allied Health and other graduate study.
## Academic Standards

Students must earn a minimum grade of a “C” in all classes taken in their major disciplines and a minimum grade of a “C” in all classes taken in their minor disciplines (if applicable).

## Special Emphasis Options

In addition to the degree programs listed above, students may select alternate required courses in the major in such a way as to pursue specific career options. Emphasis options are available in Biology teacher preparation, Pre-Medicine, Pre-Dentistry, Pre-Veterinary, Pre-Podiatry, Pre-Pharmacy, Pre-Physical therapy, or other Allied health professions. Please refer to course listings on the following pages.

## Bachelor of Science in Biology Degree Program Requirements

### Core Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1015</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIOL 1021</td>
<td>Biology Seminar</td>
</tr>
<tr>
<td>BIOL 1025</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIOL 1031</td>
<td>Biology Seminar</td>
</tr>
<tr>
<td>BIOL 1034</td>
<td>Botany</td>
</tr>
<tr>
<td>BIOL 2054</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 3014</td>
<td>Human Physiology and Anatomy</td>
</tr>
<tr>
<td>BIOL 3024</td>
<td>Human Physiology and Anatomy</td>
</tr>
<tr>
<td>BIOL 3034</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>BIOL 3073</td>
<td>Molecular Biology I</td>
</tr>
</tbody>
</table>

### Foreign Language Requirements (one language)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Major Requirements

1 | Course Code | Title |
2 | ------------- | ------- |
| BIOL 1015 | General Biology | 5 |
| BIOL 1021 | Biology Seminar | 1 |
| BIOL 1025 | General Biology | 5 |
| BIOL 1031 | Biology Seminar | 1 |
| BIOL 1034 | Botany | 4 |
| BIOL 2054 | Genetics | 4 |
| BIOL 3014 | Human Physiology and Anatomy | 4 |
| BIOL 3024 | Human Physiology and Anatomy | 4 |
| BIOL 3034 | General Microbiology | 4 |
| BIOL 3073 | Molecular Biology I | 3 |

### Major Electives

Select 13 hours from the courses below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3044</td>
<td>Immunology</td>
</tr>
<tr>
<td>BIOL 3054</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>BIOL 3064</td>
<td>Animal Histology</td>
</tr>
<tr>
<td>BIOL 3083</td>
<td>Molecular Biology II</td>
</tr>
<tr>
<td>BIOL 3124</td>
<td>Cell Biology</td>
</tr>
<tr>
<td>BIOL 3134</td>
<td>Synthetic Biology</td>
</tr>
<tr>
<td>BIOL 4012</td>
<td>Med Terminology</td>
</tr>
<tr>
<td>BIOL 4013</td>
<td>Topics in Genomics</td>
</tr>
<tr>
<td>BIOL 4014</td>
<td>Vertebrate Embryology</td>
</tr>
<tr>
<td>BIOL 4024</td>
<td>Comparative Anatomy</td>
</tr>
<tr>
<td>BIOL 4034</td>
<td>Practicum in Biology</td>
</tr>
<tr>
<td>BIOL 4051</td>
<td>Research</td>
</tr>
<tr>
<td>BIOL 4061</td>
<td>Research</td>
</tr>
</tbody>
</table>

### Support Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1032</td>
<td>General Inorganic Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 1033</td>
<td>General Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 1042</td>
<td>General Inorganic Chemistry Laboratory</td>
</tr>
<tr>
<td>CHEM 1043</td>
<td>General Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 2032</td>
<td>General Organic Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 2033</td>
<td>General Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 2042</td>
<td>General Organic Chemistry Laboratory II</td>
</tr>
<tr>
<td>CHEM 2043</td>
<td>General Organic Chemistry II</td>
</tr>
<tr>
<td>PHYS 2111</td>
<td>General Physics Lab I</td>
</tr>
<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
</tr>
<tr>
<td>PHYS 2121</td>
<td>General Physics Lab II</td>
</tr>
<tr>
<td>PHYS 2521</td>
<td>University Physics Lab II</td>
</tr>
</tbody>
</table>

MATH 1124 (1 hours counts in the support area and 3 hours meets the core curriculum Math component requirement)
Biology majors are required to take four, one (1) hour credit (HUPF/KINE (1011 - 2151)) physical activity courses.

Total Hours: 4

Requirements for Biology as a Minor Field

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1015</td>
<td>General Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 1025</td>
<td>General Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 2054</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3014</td>
<td>Human Physiology and Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3024</td>
<td>Human Physiology and Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3034</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours: 26

---

1. Biology majors are required to take MATH 1124 or higher. Students may need to take Algebra or Pre-calculus before enrolling in Calculus. Other students may be prepared to start with Calculus I or higher math.

2. Electives in 15 SCH of upper division (advanced) Biology courses. Elect from BIOL 3044, BIOL 3054, BIOL 3064, BIOL 3083, BIOL 3124, BIOL 4012, BIOL 4013, BIOL 4024, BIOL 4034, BIOL 4051 and BIOL 4061. A total of forty-eight (48) Biology SCH are required.

3. Biology majors may elect the minor of their choice and satisfy the catalog requirements for that minor. However biology majors only need to complete CHEM 4033 and CHEM 4042, Biochemistry lecture and lab, to complete the catalog requirements for a minor in chemistry.

Special Emphasis Programs

The following electives should be selected to prepare for the specialized fields listed.

Pre-medicine and Pre-dentistry

The minimum requirements for admission to medical or dental school include average scores on the Medical School Admission Test (MCAT) or Dental Aptitude Test (DAT) and the satisfactory completion of 90 semester hours of the pre-medical or pre-dental curriculum with average or better grades.

Candidates for admission are evaluated on the basis of their academic background, ability to succeed in professional school, integrity, psychological stability, motivation, judgment, and resourcefulness. The admissions committee will also evaluate the recommendations of the premedical advisory committee.

Students must apply to medical or dental school by June 1, one year in advance of their expected entrance. They are therefore advised to take the MCAT or DAT by the spring of their junior year.

MCAT Registration

Association of American Medical Colleges

Mcat@aamc.org or www.aamc.org/mcat (http://www.aamc.org/mcat)

DAT Registration

Association of American Dental Schools

<table>
<thead>
<tr>
<th>MCAT Registration</th>
<th>DAT Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>American College</td>
<td>Testing Program Div. of Educational Measurements</td>
</tr>
<tr>
<td>P.O. Box #414</td>
<td>Council on Dental Education</td>
</tr>
<tr>
<td>Iowa City, IA 52240</td>
<td>American Dental Association</td>
</tr>
<tr>
<td>(319) 337-1305</td>
<td>211 East Chicago Avenue</td>
</tr>
<tr>
<td></td>
<td>Chicago, IL 60611</td>
</tr>
<tr>
<td></td>
<td>(312) 440-2689</td>
</tr>
</tbody>
</table>

The Pre-Professional curriculum qualifies students to apply to schools of Medicine, Dentistry, Pharmacy, Podiatry, Optometry, and Graduate studies. The curriculum enables students to complete the MCAT, DAT, PCAT, OAT and GRE preparatory course by the spring of their junior year. Students are encouraged to attend at least one summer session to ensure completion of necessary courses prior to the summer of their junior year.

Dental School Early Admission Programs

The University of Texas Dental School at San Antonio, the Texas A&M University School of Dentistry, Baylor College of Dentistry in Dallas, The University of Texas Dental Branch at Houston and the University of Iowa Dental School in Iowa City, Iowa have established early admission agreements with Prairie View A&M University. Students may apply for early admission to these schools after completing the first year of the biology curriculum for majors with a 3.0 or higher GPA.
Applications may be obtained from the Pre-Dental advisor (Dr. Cleveland O. Lane, Jr.). The application deadline is October 1 of the student’s sophomore year. The dental schools will evaluate each application and make the selections of students for interviews.

Pre-Veterinary Medicine

The Pre-veterinary medicine curriculum provides the prerequisites for admission to professional veterinary medicine schools. The curriculum also leads to a Bachelor of Science degree in biology. Students in the Pre-veterinary medicine program should apply to veterinary medical school at the beginning of their third year. Students should write to the Office of Admissions of the desired institution for information about specific admission requirements.

Most schools of veterinary medicine require the Graduate Record Examination (GRE), Veterinary Admission Test (VAT), or Medical College Admission Test (MCAT). It is the students’ responsibility to determine which of these examinations is required by the institution to which they are seeking admission.

Requirements in Addition to Biology Degree Requirements

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>MATH 3003 Mathematics in Elementary Schools</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Chemistry</th>
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<tbody>
<tr>
<td>CHEM 4033 Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 4042 Biochemistry Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours 8

Pre-Veterinary medical students should contact the Pre-Veterinary faculty adviser in the Department of Biology.

Biology Teacher Preparation

Biology majors who plan to teach should follow the biology curriculum and the Teacher Certification Program in order to be eligible for certification as a teacher of biology, grades 7-12.

Student teaching is required of all students preparing to teach. Program prerequisites for student teaching should be completed before applying for student teaching. Additional information and the suggested curriculum for the Bachelor of Science degree with a Teacher Education option may be obtained from the biology teacher education faculty advisor, Dr. Cleveland O. Lane, Jr. in the biology department.

Honor Societies and Clubs

**Beta Beta Beta Biological Honor Society** stimulates sound scholarship, promotes the dissemination of scientific knowledge, and encourages investigation in the life sciences. To be eligible for selection, candidates must have a superior scholarship record and have completed at least two courses in biology totaling not less than 10 semester hours, or the equivalent of that number. They must also have completed at least one term of the second year of a four-year curriculum or its equivalent and exemplify high ethical and moral ideals.

**Beta Kappa Chi Honor Society** encourages and advances scientific education through original investigation, dissemination of scientific knowledge, and stimulation of high scholarship in the pure and applied sciences. To be eligible for membership, students must be in the upper fifth of their university class and have completed at least 64 semester hours of university work. Candidates for membership in Beta Kappa Chi must have completed 17 semester hours in one of the sciences recognized by the society with a grade average of at least B.

**Minority Association of Pre-health Students** provides activities through partnerships with near-by chapters of Student National Medical Association (SNMA) to achieve the goal of increasing the matriculation of undergraduate students into professional health related programs by providing information, materials and mentorship opportunities. The Premedical Club exists to establish a rapport between premedical students and the staff of professional schools; to provide opportunities for students to visit various health professional schools for tours, chats, and informal lectures; to assist students in becoming competent test takers and broaden their cultural perspective. The Premedical Club is open to all students interested in a medical career.

**The Pre-Veterinary Medicine Club** exists to establish a rapport between the Biology Department, Veterinarians and Colleges of Veterinary Medicine; to establish student veterinary preceptor ships to provide opportunities for visits to zoos and the College of Veterinary Medicine at Texas A&M University; to become aware of the vast differences in entry requirements for the 27 colleges of Veterinary medicine and to assist students in becoming competent test takers. The club is open to all students interested in veterinary medicine.

**The Pre-Dental Club** exists to establish a rapport between the biology department and dental schools; to establish a better relationship between pre-dental students and dental school staff; to provide opportunities for students to visit dental schools; to assist students in becoming competent test takers and to strengthen skills of students interested in a dental career.

**The Allied Health Club** is designed to provide these students with an opportunity to acquire knowledge in reference to the allied health discipline. This club enables students interested in physical therapy, pharmacy, physician’s assistant, occupational therapy, optometry, dental hygiene, medical record administration, and public health an opportunity to learn about their chosen professions. These students are introduced to professionals in allied health;
visit the campuses, and hospitals of the various programs; establish relationships with the faculty and other students interested in the allied health fields. The Allied Health Club is open to all students interested in a health professional career.

The Pre-Optometry Club is designed to educate and prepare students for careers in optometry. The Optometry Club provides opportunities for its members to visit optometry schools and attend seminars in reference to becoming adequately prepared for entry into optometry school. Seminars are given to assist the students in becoming competent test takers for the Optometry Admissions Test. The club is open to all students interested in optometry as a profession.

The Pre-Pharmacy Club is designed to educate and prepare students for careers in pharmacy. The Pharmacy Club invites pharmacists to speak to their club to inform them about the pharmaceutical sciences. The students visit pharmacy schools and gain knowledge in reference to successful matriculation in pharmacy school. The club assists students in becoming competent test takers for the Pharmacy College Admissions Test. The club is open to all students interested in pharmacy as a profession.

Chemistry

Purpose and Goals: Chemistry and Physics Programs

The B.S. program in Chemistry is designed to provide deep understanding of scientific processes and principles, which will enable students to develop intellectually, culturally, socially and morally. It is further intended to provide a comprehensive foundation in all the major areas of Chemistry, while offering a good measure of flexibility. Through the execution of its function, the Department prepares students for careers in teaching, research, industry, and pre-professional training in Medicine, Dentistry and Allied health professions.

In July 2013, Texas Higher Educational Coordinating Board (THECB) approved a joint Bachelor of Science (BS) degree in Physics (CIP 40.0801.00) as part of Texas Physics Consortium (TPC) for the following universities: Prairie View A&M University; Tarleton State University; Texas A&M University-Corpus Christy; Texas A&M University-Kingsville; West Texas A&M University; Texas Southern University; and Mid Western State University. This consortium undergraduate B.S. program in Physics provides a broad and solid background in fundamental physics from introductory to advanced course work. It also provides specialized educational preparation and training in several disciplines.

Academic Standards

Students must earn a minimum grade of a “C” in all classes taken in their major disciplines and a minimum grade of a “C” in all classes taken in their minor disciplines (if applicable).

Special Emphasis Concentrations - Chemistry

The Department of Chemistry offers a Bachelor of Science Degree with the following concentrations:

Traditional Chemistry: This program is designed for students who plan to be professional chemists, and to pursue graduate studies in chemistry.

Biomedical Science: This program is designed for students who plan additional study toward the M.D., D.D.S., or D.V.M. degrees. It is also suitable for students interested in medical or biomedical research as well as for those who plan to pursue a graduate degree in the biochemical or biomedical areas.

Forensic Science: This program is for students interested in career in crime laboratories, drug enforcement agency, food and drug administration, and other related agencies.

Special Focus Areas - Physics

The Physics program also provides opportunities for undergraduate students to pursue research at the frontiers of physics and for collaborations with other departments. The physics faculty members conduct research in areas that include novel materials and devices, nanostructures, high temperature superconductivity, high magnetic field phenomena, solar and space physics, radiation physics, medical imaging, geosciences and optical physics. These research projects provide an outstanding training environment for our undergraduate students.

The program offers several specialization focus areas that may be customized to the student’s interest and potential career of choice. Examples are: Traditional Physics (with 18 SCH of advanced courses in Physics or Physical Science), Computational Physics (with 23 SCH of courses from Computer Science), Applied Physics (with 23 SCH of courses from Electrical Engineering), and Medical Physics. Each student will work with an advisor and the program coordinator to develop an individual degree plan. All Physics majors must complete the core curriculum. Consult your advisor for a choice of courses within the core that would provide you with a better preparation for Physics and other professional programs.

Bachelor of Science in Chemistry Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmental Requirements (Foreign Language Elective - one language)</td>
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<tr>
<td>Major Requirements</td>
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</tr>
<tr>
<td>CHEM 1032</td>
<td>General Inorganic Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 1033</td>
<td>General Inorganic Chemistry</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>------------</td>
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<tr>
<td>CHEM 1042</td>
<td>General Inorganic Chemistry Laboratory</td>
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<td>CHEM 1043</td>
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<td>CHEM 2012</td>
<td>Quantitative Analysis</td>
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<td>Quantitative Analysis Laboratory</td>
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<td>Physical Chemistry</td>
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<tr>
<td>CHEM 4051</td>
<td>Research</td>
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<tr>
<td>CHEM 4053</td>
<td>Instrumental Analysis</td>
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**Support Area**

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<td>BIOL 1015</td>
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<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
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</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
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</table>

Select one of the following concentrations from below

**Total Hours**

**Traditional Chemistry Concentration**

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3423</td>
<td>Physical Chemistry</td>
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</tr>
<tr>
<td>CHEM 3432</td>
<td>Physical Chemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 4001</td>
<td>Journal Reading and Chemical Literature</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 4052</td>
<td>Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 4061</td>
<td>Research</td>
<td>1</td>
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<tr>
<td>CHEM 4063</td>
<td>Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3014</td>
<td>Calculus III</td>
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</tr>
<tr>
<td>PHYS 2111</td>
<td>General Physics Lab I</td>
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</tr>
<tr>
<td>PHYS 2121</td>
<td>General Physics Lab II</td>
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</tr>
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**Restricted electives (Select 5 hours from the courses below):**

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<tr>
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<tbody>
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<td>Biology Seminar</td>
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</tr>
<tr>
<td>BIOL 3014</td>
<td>Human Physiology and Anatomy</td>
<td></td>
</tr>
<tr>
<td>BIOL 3024</td>
<td>Human Physiology and Anatomy</td>
<td></td>
</tr>
<tr>
<td>BIOL 3034</td>
<td>General Microbiology</td>
<td></td>
</tr>
<tr>
<td>CHEM 3023</td>
<td>Special Topics in Chemistry w/revolving themes forensic science/emerging areas of interests in Chem</td>
<td></td>
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<tr>
<td>CHEM 4023</td>
<td>Forensic Chemistry</td>
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</tr>
<tr>
<td>CHEM 4042</td>
<td>Biochemistry Laboratory</td>
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</table>

**Total Hours**

**Biomedical Science Concentration**

<table>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1025</td>
<td>General Biology</td>
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<tr>
<td>BIOL 3014</td>
<td>Human Physiology and Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2003</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2111</td>
<td>General Physics Lab I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2121</td>
<td>General Physics Lab II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Restricted Electives (Select 9 hours from the courses below):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1021</td>
<td>Biology Seminar</td>
<td></td>
</tr>
<tr>
<td>BIOL 2054</td>
<td>Genetics</td>
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</tr>
<tr>
<td>BIOL 3024</td>
<td>Human Physiology and Anatomy</td>
<td></td>
</tr>
<tr>
<td>BIOL 3034</td>
<td>General Microbiology</td>
<td></td>
</tr>
<tr>
<td>CHEM 3023</td>
<td>Special Topics in Chemistry w/revolving themes forensic science/emerging areas of interests in Chem</td>
<td></td>
</tr>
<tr>
<td>CHEM 3423</td>
<td>Physical Chemistry</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
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</tr>
<tr>
<td>CHEM 3432</td>
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<tr>
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<td>Journal Reading and Chemical Literature</td>
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<td>CHEM 4052</td>
<td>Instrumental Analysis Laboratory</td>
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<tr>
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<tr>
<td>CHEM 4063</td>
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**Total Hours**: 23

**Forensic Science Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CHEM 4001</td>
<td>Journal Reading and Chemical Literature</td>
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<tr>
<td>CHEM 4023</td>
<td>Forensic Chemistry</td>
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<tr>
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<td>Forensic Chemistry Laboratory</td>
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<td>CHEM 4063</td>
<td>Inorganic Chemistry</td>
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<tr>
<td>MATH 2003</td>
<td>Elementary Statistics</td>
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<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
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**Restricted Electives (Select 9 hours from the following courses):**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJS 1133</td>
<td>Principles of Criminal Justice</td>
<td></td>
</tr>
<tr>
<td>CRJS 2613</td>
<td>Court Systems and Practices</td>
<td></td>
</tr>
<tr>
<td>CRJS 3623</td>
<td>Criminal Law</td>
<td></td>
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<tr>
<td>CRJS 4923</td>
<td>Criminology</td>
<td></td>
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<tr>
<td>BIOL 1025</td>
<td>General Biology</td>
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<tr>
<td>BIOL 2054</td>
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<td>BIOL 3014</td>
<td>Human Physiology and Anatomy</td>
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<td>BIOL 3024</td>
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<tr>
<td>BIOL 3034</td>
<td>General Microbiology</td>
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<tr>
<td>BIOL 3044</td>
<td>Immunology</td>
<td></td>
</tr>
<tr>
<td>BIOL 3073</td>
<td>Molecular Biology I</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours**: 23

1. Students majoring in Chemistry must earn a minimum grade of "C" in all classes taken in their major disciplines.
2. PHYS 2113, 2123, 2513, and 2523 must be taken in the core.
3. A six-week summer internship or externship in approved forensic laboratory or DEA Laboratory can be used to earn credit for CHEM 4032 by submitting a detailed report of laboratory techniques acquired during the externship.

### Requirements for Chemistry as a Minor

Students who select Chemistry as a minor must complete twenty-four semester credit hours from the following courses with a minimum grade of a "C":

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1032</td>
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<td>CHEM 1042</td>
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<tr>
<td>CHEM 1043</td>
<td>General Inorganic Chemistry</td>
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<td>CHEM 2112</td>
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<td>CHEM 2042</td>
<td>General Organic Chemistry Laboratory II</td>
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<td>CHEM 2043</td>
<td>General Organic Chemistry II</td>
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<tr>
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<td>Physical Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 3423</td>
<td>Physical Chemistry</td>
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<tr>
<td>CHEM 4001</td>
<td>Journal Reading and Chemical Literature</td>
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<tr>
<td>CHEM 4033</td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 4042</td>
<td>Biochemistry Laboratory</td>
<td></td>
</tr>
</tbody>
</table>
Purpose and Goals

The Department of Chemistry offers a program of advanced study that prepares graduate students for careers in research, teaching, or industry. Graduate training in the department is multifaceted and flexible, depending on the interests and needs of the student. The program includes coursework, seminars, teaching and/or research, experience, and writing of a thesis.

Admission Requirements

Students who plan to work toward the M.S. degree in chemistry must fulfill the following undergraduate requirements: two semesters of inorganic chemistry, one semester of analytical chemistry, two semesters of organic chemistry, and two semesters of physical chemistry. It is expected that the average grades in these chemistry courses and in related courses will not be less than a grade of “C”. A student whose overall GPA in graduate coursework falls below 3.0 on a 4.0 scale will be required to demonstrate improvement during the next enrollment or be discontinued in the program. The Department reserves the right to administer a qualifying examination to these students and to advise them on courses they can take to successfully complete the graduate degree.

Advancement to Candidacy

The Application for Candidacy Form must be approved by the department head, Dean of Arts and Sciences, and submitted to the Dean of the Graduate School for approval. Research projects for the thesis will be assigned before the student is approved as a candidate.

Master of Science in Chemistry Degree Program Requirements

It is recommended that students who plan to qualify for the M.S. Degree in Chemistry spend at least one year in residence and that those who plan to study during the summer periods plan to devote at least one summer to research. Below is a suggested outline of study for the various fields of chemistry. The outlines represent only the minimum requirements:

Each candidate is expected to successfully complete a minimum of 24 semester hours of course work exclusive of research.

<table>
<thead>
<tr>
<th>Core Classes</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>CHEM 5322 Instrumental Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 5323 Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5402 Advanced Organic Chemistry</td>
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</tr>
<tr>
<td>CHEM 5534 General Biochemistry</td>
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<table>
<thead>
<tr>
<th>Electives</th>
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<tbody>
<tr>
<td>Select one from the following courses:</td>
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<tr>
<td>BIOL 5024 Microscopic Anatomy</td>
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<tr>
<td>CHEM 5414 Identification of Organic Compounds</td>
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<tr>
<td>CHEM 5442 Polymer Chemistry Laboratory</td>
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</tr>
<tr>
<td>CHEM 5443 Polymer Chemistry</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Thesis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one concentration from below</td>
<td></td>
</tr>
<tr>
<td>CHEM 5313 Advanced Analytical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5613 Advanced Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5783 Advanced Physical Chemistry</td>
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</table>

Total Hours 30

<table>
<thead>
<tr>
<th>Chemistry Concentration</th>
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<tbody>
<tr>
<td>CHEM 5322 Instrumental Lab</td>
<td>2</td>
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<tr>
<td>CHEM 5323 Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5402 Advanced Organic Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 5534 General Biochemistry</td>
<td>4</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one from the following courses:</td>
<td></td>
</tr>
<tr>
<td>BIOL 5024 Microscopic Anatomy</td>
<td></td>
</tr>
<tr>
<td>CHEM 5414 Identification of Organic Compounds</td>
<td></td>
</tr>
<tr>
<td>CHEM 5442 Polymer Chemistry Laboratory</td>
<td></td>
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<tr>
<td>CHEM 5443 Polymer Chemistry</td>
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<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one concentration from below</td>
<td></td>
</tr>
<tr>
<td>CHEM 5313 Advanced Analytical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5613 Advanced Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 5783 Advanced Physical Chemistry</td>
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Total Hours 9

<table>
<thead>
<tr>
<th>Chemical Biology Concentration</th>
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</thead>
<tbody>
<tr>
<td>BIOL 5013 Genomics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5063 Micro Activ Toxico</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5123 Cell and Molecular Biology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 9
Bachelor of Science in Physics: Degree Program Requirements

Prairie View A&M University is a member of the Texas Physics Consortium (TPC) that offers a Joint BS Degree in Physics with member institutions collectively offering more than 24 SCH of advanced physics core courses via Trans Texas Video Network (TTVN).

To graduate with a Bachelor of Science degree in Physics, a minimum of 120 semester credit hours (SCH) are required, divided into three (3) categories of required course sequences: (i) Core Curriculum courses (42 SCH), (ii) Major courses (60 SCH), and (iii) Specialization (18 SCH). A minor may be chosen depending upon the student’s preference and career choice.

Core Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1123</td>
<td>Freshman Composition I</td>
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</tr>
<tr>
<td>ENGL 1133</td>
<td>Freshman Composition II</td>
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</tr>
<tr>
<td>MATH 1113</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>CHEM 1033</td>
<td>General Inorganic Chemistry</td>
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</tr>
<tr>
<td>PHSC 1123</td>
<td>Physical Science I</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language, Philosophy, and Culture</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Science and Behavioral Sciences</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIST 1313</td>
<td>U.S. to 1876</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1323</td>
<td>U.S. 1876 to Present</td>
<td>3</td>
</tr>
<tr>
<td>POSC 1113</td>
<td>American Government</td>
<td>3</td>
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<tr>
<td>POSC 1123</td>
<td>Texas Government</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPET 1013</td>
<td>Computer Applications in Engineering Technology I</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1003</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
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</table>

Major Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2523</td>
<td>University Physics II</td>
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</tr>
<tr>
<td>PHYS 2521</td>
<td>University Physics Lab II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3103</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3123</td>
<td>Electricity and Magnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3163</td>
<td>Mathematical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3183</td>
<td>Modern Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3243</td>
<td>Introduction to Nuclear, Particle and Radiation Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4023</td>
<td>Introductory Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4063</td>
<td>Thermodynamics and Statistical Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4103</td>
<td>Advanced Physics Lab</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4911</td>
<td>Physics Research Project</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4921</td>
<td>Physics Research Seminar</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2043</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3014</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Inorganic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>PHSC 1121</td>
<td>Sci Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHSC 2123</td>
<td>Physical Science II</td>
<td>3</td>
</tr>
</tbody>
</table>

Physics Electives: Select 6 hours from any 3000 or 4000 level Physics course from Approved TPC Courses 6

Specialization - Select 18 hours from any discipline listed below, in consultation with your faculty advisor: 18

Any PHYS, PHSC, MATH, CHEG, CPET, COMP, CVEG, GNEG, ELEG, ELET, OR MCEG

Total Hours 120

Requirements for Physics as a Minor Field

PHYS 2511-2521, PHYS 2513-2523, and 10 SCH of Physics Electives.
Honor Societies, Clubs, and Service Organizations

The William E. Reid Student Chapter of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCHE) introduces students to the chemical professional environment in business, industry, government, and academia with special emphasis on the role of the minority chemist.

The student Affiliate Chapter of the American Chemical Society (ACS/SA) serves the dual role as departmental club and the avenue of participation to the chemical community. Chemistry majors and minors may become members of the ACS/SA upon recommendations of a member of the ACS.

Students who have had at least one course in physics above the elementary level and whose grade point averages are B or better are eligible for membership in Sigma Pi Sigma, the physics honor society. Students having an interest in physics may also join the Society of Physics Students, an organization dedicated to the promotion and advancement of physics throughout society.

Division of Social Work, Behavioral and Political Sciences

Purpose and Goals

The Division of Social Work, Behavioral and Political Sciences provides support courses for all undergraduate programs in addition to offering four undergraduate degrees and one graduate degree. The degree programs help prepare students to pursue a variety of career options, including urban and regional planning, social work practice, human services, public administration, international affairs, public policy, public health, law enforcement, and legal studies. In addition, the Division offers courses in Geography and Philosophy. Many courses in the Division support those seeking teacher certification in Social Studies with the Whitlowe R. Green College of Education.

Degree Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>BA</td>
</tr>
<tr>
<td>Political Science</td>
<td>BA</td>
</tr>
<tr>
<td>Social Work</td>
<td>BSW</td>
</tr>
<tr>
<td>Sociology</td>
<td>BA, MA</td>
</tr>
</tbody>
</table>

Academic Standards

Students must earn a minimum grade of “C” in all classes pertaining to their major and in those required in the support area and unrestricted electives. Furthermore, a minimum grade of “C” is required in the minor area (if applicable).

Teacher Certification

Students seeking teacher certification in history or political science should consult with an advisor in the respective degree plan for requirements and guidelines. Students seeking should select the teacher certification concentration in their respective degree program. The degree will be designated as a Bachelor of Arts in History or Political Science degree with secondary teacher certification. The Department of Curriculum and Instruction in the Whitlowe R. Green College of Education must admit students in the teacher certification program.

Students pursuing certification for secondary school teaching must consult with their advisor in the Division of Social Work, Behavioral and Political Sciences within their first two semesters of study at Prairie View A&M University. For more information, please refer to the teacher certification section of the catalog under the Whitlowe R. Green College of Education for requirements and guidelines.

History Program Description

The History Program at Prairie View A&M University prepares students for careers in areas including, but not limited to, teaching, government, law, public history, and political life. The History Program encourages a systematic study of the past and attempts to use the gained knowledge to explain human nature, behavior and contemporary issues.

Bachelor of Arts in History Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Language Requirements (One Language)</td>
<td>6</td>
</tr>
<tr>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td>HIST 1813</td>
<td>World Civilization to 1500</td>
</tr>
<tr>
<td>HIST 1823</td>
<td>World Civilization since 1500</td>
</tr>
<tr>
<td>HIST 3913</td>
<td>American Historiography</td>
</tr>
<tr>
<td>HIST 4213</td>
<td>African American History to 1865</td>
</tr>
<tr>
<td>HIST 4223</td>
<td>African American History 1865-Present</td>
</tr>
</tbody>
</table>
HIST 4903  Senior Seminar  3

History Electives  18

Support Area Requirements

ECON 2113  Principles of Microeconomics  3
or ECON 2123  Principles of Macroeconomics

ENGL 2423  American Literature to 1865  3
or ENGL 2433  American Literature 1865 to Present

GEOG 1113  Introduction to Geography  3

POSC 2000 Level or Above  3

Unrestricted Electives  6

Concentration Requirements (Select one option from below)  18

Without Teacher Certification Concentration
18 hours in Minor Area  3

With Teacher Certification Concentration
CUIN 3003  Educational Foundations
CUIN 3013  Educational Psychology
CUIN 4103  Instructional Planning and Assessment
CUIN 4113  Instructional Methodology and Classroom Management
CUIN 4826  Student Teaching Secondary II

Total Hours  120

1  In order to fulfill the 6 SCH of Life and Physical Sciences requirements, students are advised to take a BIOL, CHEM, PHYS, or PHSC sequence.
2  Students must earn a minimum grade of “C” in all classes pertaining to their major and in those required in the support area and unrestricted electives. Furthermore, a minimum grade of “C” is required in the minor area (if applicable).
3  Depending on the credit hours required by the selected minor.

Political Science Program

The Political Science Program has a mission of providing students with knowledge and training necessary for personal, academic, and professional development in a friendly academic environment. The curriculum is designed to help students develop their reasoning and critical thinking skills and improve their competence in oral and written communication. The fundamental goal of the program is to provide students with the theoretical underpinnings and analytical tools required to research and understand political issues and governmental processes. In addition to providing support courses for all undergraduate studies at Prairie View A&M University, the program strives to achieve the following pivotal goals:

• Prepare students for graduate and professional schools by exposing them to a variety of concepts, theories and methodologies used in the study of Political Science;
• Train students for careers in government, law, education, journalism, urban planning, international affairs, business and many other fields on which public policy has an impact; and
• Help students develop a sustained interest in the day-to-day activities of governmental institutions and processes, as well as in events and issues that occur daily at the local, state, national, and international levels.

The program offers a B.A. in Political Science with courses tailored to students of diverse educational and career interests. The curriculum covers many of the sub-fields of Political Science, such as American government and politics, public law, comparative politics, international politics, public administration, research methodology, and political theory. The program also offers specialty courses in a wide range of topics including blacks in the American political system, race and gender in politics, Gandhi and King and legal studies. The program requires the completion of 33 credit hours of Political Science courses, of which POSC 2133, POSC 2413, POSC 3543 and POSC 4113 are required for majors in the discipline.

Bachelor of Arts in Political Science Degree Program Requirements

Core Curriculum  42
Foreign Language Requirements (One Language)  6

Major Requirements  3
POSC 2133  Introduction to Political Science  3
POSC 2413  Scope and Methods in Political Science  3
POSC 3543  International Politics  3
POSC 4113  American Constitutional Law  3
Political Science Electives: (Select seven course from the list below):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSC 2113</td>
<td>Political Parties and Elections</td>
</tr>
<tr>
<td>POSC 2123</td>
<td>Public Administration</td>
</tr>
<tr>
<td>POSC 2143</td>
<td>Legal Studies</td>
</tr>
<tr>
<td>POSC 2213</td>
<td>Blacks and the American Political System</td>
</tr>
<tr>
<td>POSC 2503</td>
<td>Global Issues</td>
</tr>
<tr>
<td>POSC 2523</td>
<td>Studies of the Global South</td>
</tr>
<tr>
<td>POSC 2533</td>
<td>Latin American and Caribbean Politics</td>
</tr>
<tr>
<td>POSC 2543</td>
<td>State and Local Government</td>
</tr>
<tr>
<td>POSC 3123</td>
<td>Modern Political Theory</td>
</tr>
<tr>
<td>POSC 3213</td>
<td>Public Policy Analysis</td>
</tr>
<tr>
<td>POSC 3313</td>
<td>Political Studies Thru Film</td>
</tr>
<tr>
<td>POSC 3513</td>
<td>Comparative Politics</td>
</tr>
<tr>
<td>POSC 3523</td>
<td>Comparative Politics of Developing States</td>
</tr>
<tr>
<td>POSC 3533</td>
<td>U.S. Foreign Policy</td>
</tr>
<tr>
<td>POSC 3553</td>
<td>African Politics</td>
</tr>
<tr>
<td>POSC 3593</td>
<td>Middle East Politics</td>
</tr>
<tr>
<td>POSC 4103</td>
<td>Urban Government and Politics</td>
</tr>
<tr>
<td>POSC 4123</td>
<td>The Constitution and Private Rights</td>
</tr>
<tr>
<td>POSC 4133</td>
<td>The Presidency</td>
</tr>
<tr>
<td>POSC 4143</td>
<td>The Legislative Process</td>
</tr>
<tr>
<td>POSC 4193</td>
<td>Special Topics in Political Science 3</td>
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<tr>
<td>POSC 4203</td>
<td>Judicial Politics</td>
</tr>
<tr>
<td>POSC 4213</td>
<td>Seminar in Political Science</td>
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</tbody>
</table>

Support Area

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2123</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ENGL 2143</td>
<td>Advanced Composition</td>
</tr>
<tr>
<td>or ENGL 2423</td>
<td>American Literature to 1865</td>
</tr>
<tr>
<td>or ENGL 2433</td>
<td>American Literature 1865 to Present</td>
</tr>
<tr>
<td>or ENGL 3043</td>
<td>Professional Writing for Electronic Media</td>
</tr>
<tr>
<td>or ENGL 3243</td>
<td>Studies in American Literature</td>
</tr>
<tr>
<td>GEOG 1113</td>
<td>Introduction to Geography</td>
</tr>
<tr>
<td>PSYC 2613</td>
<td>Fundamental of Statistics</td>
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<tr>
<td>or SOCG 4053</td>
<td>Social Statistics</td>
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</table>

Unrestricted Electives 9

Concentration Requirement (Select one option from below) 18

Without Teacher Certification Concentration
Select 18 hours in a minor area 4

With Teacher Certification Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUIN 3003</td>
<td>Educational Foundations</td>
</tr>
<tr>
<td>CUIN 3013</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>CUIN 4103</td>
<td>Instructional Planning and Assessment</td>
</tr>
<tr>
<td>CUIN 4113</td>
<td>Instructional Methodology and Classroom Management</td>
</tr>
<tr>
<td>CUIN 4826</td>
<td>Student Teaching Secondary II</td>
</tr>
</tbody>
</table>

Total Hours 120

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1. All Political Science Core Curriculum requirements are shown in the suggested degree program. In order to fulfill the 6 SCH of Life and Physical Sciences requirements, students are advised to take a BIOL, CHEM, PHYS, or PHSC sequence.

2. Students must earn a minimum grade of “C” in all classes pertaining to their major and in those required in the support area and unrestricted electives. Furthermore, a minimum grade of “C” is required in the minor area (if applicable).

3. This course is repeatable for up to 9 semester credits when topic differs.

4. Depending on the credit hours required by the selected minor.
Professional Social Work Program

Purpose and Goals

The mission of the Baccalaureate Social Work (BSW) Program is to prepare students as generalist Social Work practitioners and provide students with requisite knowledge for advanced study. The Program equips students with core skills and values for beginning level Social Work practice in both rural and urban settings, working with individuals, families, groups, organizations, communities, and populations-at-risk.

The generalist Social Work practice entails a problem solving process (multi-method) at the micro, mezzo, and macro levels (multi-level) utilizing Social Work knowledge, values, and skills, which informs and directs service delivery to assess and intervene with the problems confronting clients (conceptualization). Generalist Practice of the Baccalaureate Social Work Program at Prairie View A&M University utilizes the ecosystems approach, which includes the ecological perspective and systems theory that entail viewing the person and the problem within the environment, and identifies strength within the client as well as the environment. Students apply the problem solving method to empower clients and to intervene across diverse client systems of all sizes (i.e. individuals, families, groups, organizations, and communities), both in rural and urban settings.

Students at Prairie View A&M University, a Historically Black College/University, are provided with a unique opportunity to recognize the importance of the barriers and obstacles regarding disenfranchised people within the social environment, realities of discrimination, and oppression, and the opportunities to enhance social and economic justice.

The Baccalaureate Social Work Program is accredited by the Council on Social Work Education. The goals of the Social Work Program are to:

1. Prepare students to understand social welfare policy analysis and its history, as well as policy analysis and its implementation; forms and mechanism of oppression and discrimination, and the strategies of change that advance social and economic justice in both rural and urban settings;

2. Utilize liberal arts and core generalist competencies to prepare students for practice with client systems of various sizes and types, with considerations to the social context of social work practice and the dynamics of change;

3. Prepare students to appreciate and conduct ethical Social Work research to evaluate service delivery at all levels of practice and to add to the Social Work knowledge base with qualitative and quantitative methodologies;

4. Prepare students for entry-level generalist Social Work practice with diverse populations in rural and urban settings at micro, mezzo, and macro levels of practice; based on knowledge, values, ethics and skills of Social Work built on a liberal arts perspective and reinforced through classroom and field experiences; and

5. Prepare students for a generalist Social Work career as well as graduate social work education and the importance of ongoing growth and development for both students and faculty.

Social Work majors have the opportunities to complete a total of 56 hours of volunteer assignments and the required 400 hours of supervised experiential field instruction in settings, such as rural community centers; mental health and mental retardation agencies; drug and alcohol treatment facilities; agencies serving the elderly; juveniles, adults, and children; public assistance/public welfare; school Social Work service; and policy-making entities and Social Work administration. Graduates of the Social Work Program secure employment in a variety of agencies, including hospitals, schools, child welfare, probation and parole centers, residential treatment centers, and other public and private agencies.

Academic Progress

Social Work majors must maintain satisfactory progress in the major. Students will be evaluated by their respective advisor each semester. Students maintaining unsatisfactory academic progress will be evaluated for continuation in the Social Work Program. Students must meet with their respective advisor to ensure courses are taken in the proper sequence for the Social Work major (See Social Work Suggested Degree Program Sequence). Students must complete the Liberal Arts prerequisite courses and SOWK 2113 (http://catalog.pvamu.edu/search/?P=SOWK%202113) prior to enrolling in Social Work core courses for their junior and senior years. Students must take all SOWK upper division core courses in proper sequential order.

A Social Work major must maintain a grade of “C” or better in all SOWK courses. No SOWK prefix course may be repeated more than once to achieve a passing grade of “C”. A minimum of a 2.50 GPA in all SOWK courses is required to qualify for Field Education and graduation with a BSW degree. A student who fails to achieve a passing grade in any of the SOWK prefix courses after two attempts must seek a major in another discipline. Students must earn a minimum grade of “C” in all Social Work courses and in those required in the support area. The Program does not offer credit for life or work experience.

The Social Work Program does not give credit in whole or part for previous work experiences or life experiences in lieu of field instruction or for any social work core courses.

Admission Requirements

Students desiring to pursue the Baccalaureate degree in Social Work must complete procedures designed to determine their suitability and/or readiness for professional generalist Social Work practice. Freshmen students changing their major, and transfer students may declare Social Work as a major for the purpose of advisement. Students interested in a Social Work major initially meet with the Director of Social Work Program who interviews the student regarding their knowledge of Social Work and what they hope to accomplish with a degree in Social Work. Students are identified as Prospective
Social Work Majors until they are officially accepted into the Program. This usually occurs during the sophomore year when the student is nearing completion of the Program’s required Liberal Arts Perspective and other basic freshmen/sophomore level courses. Prior to official acceptance, students must have completed the pre-professional Social Work course: SOWK 2113, Introduction to Social Work and Social Welfare, with a minimum grade of “C”. Students are expected to attend the Social Work Major’s Orientation scheduled during the fall semester.

Admission of Transfer Students

The Social Work Program follows the University’s guidelines for transfer credit of University core requirements and proficiency examinations (College Level Examination Program or CLEP). Guidelines and procedures for general transfer of core curriculum courses and proficiency examinations are described in the Undergraduate Catalog.

Liberal Arts courses that meet the requirements for Social Work degree will be accepted as transfer credit. The Social Work Program accepts transfer credits of Social Work courses only from CSWE accredited programs. The Social Work Program may request copies of syllabi as deemed appropriate.

Academic and Professional Advisement

Each Social Work major (current or prospective) is assigned to a Social Work faculty advisor. Students are strongly encouraged to be proactive in seeking advisement and in strictly following their degree plan. Each Social Work major must meet with his or her respective advisor at least once per semester, and more often as needed. Advisement includes appropriate guidance in academic course work, satisfactory progress in the major, adherence to Social Work Codes of Ethics, and career options for employment.

**Bachelor of Social Work Degree Program Requirements**

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foreign Language Requirements (Spanish Recommended)</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Social Work Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>SOWK 2113</td>
<td>Introduction to the Field of Social Work</td>
</tr>
<tr>
<td>SOWK 2133</td>
<td>Social Work with Children and Families</td>
</tr>
<tr>
<td>SOWK 3113</td>
<td>Social Welfare Policy and Services</td>
</tr>
<tr>
<td>SOWK 3123</td>
<td>Social Welfare Policy Analysis</td>
</tr>
<tr>
<td>SOWK 3133</td>
<td>Human Behavior and the Social Environment I</td>
</tr>
<tr>
<td>SOWK 3143</td>
<td>Human Behavior and the Social Environment II</td>
</tr>
<tr>
<td>SOWK 3213</td>
<td>Human and Cultural Diversity Social Work</td>
</tr>
<tr>
<td>SOWK 4123</td>
<td>Social Work Practice I</td>
</tr>
<tr>
<td>SOWK 4133</td>
<td>Social Work Practice II</td>
</tr>
<tr>
<td>SOWK 4143</td>
<td>Social Work Research I</td>
</tr>
<tr>
<td>SOWK 4153</td>
<td>Social Work Research II</td>
</tr>
<tr>
<td>SOWK 4176</td>
<td>Field Practicum</td>
</tr>
<tr>
<td>SOWK 4183</td>
<td>Integrative Seminar</td>
</tr>
<tr>
<td>Select three of the following:</td>
<td>9</td>
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<tr>
<td>SOWK 2173</td>
<td>Multicultural Issues in Mental Health</td>
</tr>
<tr>
<td>SOWK 3153</td>
<td>Social Work with At-Risk Juveniles</td>
</tr>
<tr>
<td>SOWK 3163</td>
<td>Gerontological Social Work</td>
</tr>
<tr>
<td>SOWK 3173</td>
<td>Minority Aging</td>
</tr>
<tr>
<td>SOWK 4343</td>
<td>Generalist Crisis Intervention</td>
</tr>
<tr>
<td>SOWK 4353</td>
<td>Intervention with Addicted Family</td>
</tr>
<tr>
<td>SOWK 4363</td>
<td>Special topics in Social Work</td>
</tr>
<tr>
<td><strong>Support Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>SOCG 1013</td>
<td>General Sociology</td>
</tr>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>or ECON 2123</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>PSYC 1113</td>
<td>General Psychology</td>
</tr>
<tr>
<td>Select one from the following:</td>
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</tr>
<tr>
<td>MATH 2003</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>PSYC 2613</td>
<td>Fundamental of Statistics</td>
</tr>
<tr>
<td>SOCG 4053</td>
<td>Social Statistics</td>
</tr>
</tbody>
</table>
Sociology Program

Purpose and Goals

The Bachelors of Arts degree program in Sociology offers a curriculum that enables students to analyze, critically evaluate, and engage in the planning of solutions to problems that evolve from patterns of human social interaction. Sociologists analyze systems that range from individuals in small groups to entire societies. In addition to social theory and social research, students may choose courses in criminology, gerontology, substance abuse, the family, deviant behavior, and modern social problems. The Sociology Program prepares students for professional careers with government agencies and with the business sector. Students pursuing a Baccalaureate degree in Sociology may become certified in secondary education. Additionally, a Sociology degree is an excellent preparation for many post-baccalaureate degree programs.

Bachelor of Arts in Sociology Degree Program Requirements

Core Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 2123</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1143</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 2143</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1113</td>
<td>General Psychology</td>
<td>3</td>
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</tbody>
</table>

Minor Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCG 4053</td>
<td>Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 4723</td>
<td>Sociological Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 4733</td>
<td>Sociological Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 4783</td>
<td>Senior Seminar in Sociology</td>
<td>3</td>
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</tbody>
</table>

Support Area Requirements

Eight SOCG electives determined in consultation with an advisor.

Unrestricted Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1113</td>
<td>General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1143</td>
<td>Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2143</td>
<td>Sociological Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1113</td>
<td>Sociological Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 4723</td>
<td>Senior Seminar in Sociology</td>
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</table>

Total Hours

<table>
<thead>
<tr>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>120</td>
</tr>
</tbody>
</table>

Purpose and Goals

The mission of the graduate program in Sociology at Prairie View A&M University is to develop professional sociologists who are broadly educated in substantive areas of sociology and well trained in theory and methods.

The Master of Arts degree program in sociology offers a curriculum that enables students to analyze, critically evaluate and engage in the planning of solutions to problems that evolve from patterns of human social interaction. The graduate program prepares students for advanced study (e.g., Ph.D.) in sociology, criminology, law, and social welfare.

Admission Requirements

In addition to the regular application requirements of the university, applicants to the M.A. program must have the following:

1. Applicants must have a BA or BS degree from a regionally accredited institution, preferably with a major in Sociology or a closely related field/discipline.
2. Applicants must present evidence that they are capable of successfully completing a rigorous graduate program. Such evidence must include completion of a department application, and three letters of recommendation from persons in a position to evaluate the student’s academic potential.

Master of Arts in Sociology Degree Program

A total of 36 semester hours of graduate course work must be completed in graduate status. For those opting to do a thesis, the requirements include 30 hours of course work and 6 hours devoted to the M.A. thesis. Upon the decision to undertake a thesis, the student will form a committee consisting of two sociology faculty, one of whom will serve as the principle advisor, and one additional faculty member from the Division of Social Work, Behavioral and Political Sciences. The topic of the thesis will be determined by the student and the advisor. The format will follow ASA thesis guidelines in conjunction with established criteria by the Sociology Program. The thesis must be orally defended and approved by all members of the faculty thesis committee before the degree is conferred. The student must register for the thesis each semester until satisfactorily completed. No graduate credit will be given for undergraduate courses.

For students selecting the thesis option, 30 hours of course work must be completed and 6 hours of supervised thesis hours. Of the 30 hours of course work, 9 hours are core requirements and the remaining 21 are sociology support/elective requirements - of which no more than 6 hours are to be taken outside of the program.

For students selecting the non-thesis option, 36 hours of course work must be completed: 9 hours of core courses, 21 hours of support area requirements, and 6 hours taken outside the program.

Admission to candidacy will be granted upon completion of 12 semester hours of graduate work in sociology with an average grade of B or better. These hours must be completed in residence. The student must complete the Application for Admission to Candidacy form, through the Division of Social Work, Behavioral and Political Sciences, to the Dean of the Graduate School for approval.

Students must maintain an average GPA of 3.0. Only two courses with a “C” grade, regardless of credit hours, will be accepted toward credit for the Master’s degree.

Degree Program Requirements

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>SOCG 5123</td>
<td>Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 5213</td>
<td>Classical Sociological Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 5223</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>ADMN 5003</td>
<td>Theoretical Foundations of EC-12 School Administration</td>
<td></td>
</tr>
<tr>
<td>ADMN 5013</td>
<td>Educational Administration: Theory, Practice and Research</td>
<td></td>
</tr>
<tr>
<td>ADMN 5133</td>
<td>School-Community Relations</td>
<td></td>
</tr>
<tr>
<td>CODE 5013</td>
<td>Introduction to Community Development</td>
<td></td>
</tr>
<tr>
<td>CNSL 5003</td>
<td>Organization and Administration of School Counseling Programs</td>
<td></td>
</tr>
<tr>
<td>CNSL 5023</td>
<td>Theory and Practice of Counseling</td>
<td></td>
</tr>
<tr>
<td>CNSL 5033</td>
<td>Counseling Process</td>
<td></td>
</tr>
<tr>
<td>CNSL 5043</td>
<td>School Consultation</td>
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<tr>
<td>CNSL 5053</td>
<td>Orientation to Counseling and Development</td>
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<tr>
<td>CNSL 5083</td>
<td>Crisis and Trauma Counseling with Children</td>
<td></td>
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<tr>
<td>CNSL 5113</td>
<td>Career Development Counseling</td>
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<tr>
<td>CNSL 5143</td>
<td>Human Growth and Development</td>
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<tr>
<td>CNSL 5153</td>
<td>School Counseling in a Multicultural Society</td>
<td></td>
</tr>
<tr>
<td>EDFN 5113</td>
<td>Psychology of Learning and Development</td>
<td></td>
</tr>
<tr>
<td>EDFN 5123</td>
<td>Socio-Cultural Issues in Education</td>
<td></td>
</tr>
<tr>
<td>HLTH 5063</td>
<td>Human Behavior and Health Education</td>
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</tr>
<tr>
<td>HLTH 5073</td>
<td>Epidemiology and Diseases</td>
<td></td>
</tr>
<tr>
<td>HLTH 5143</td>
<td>Medical Foundations for Health Professions</td>
<td></td>
</tr>
<tr>
<td>HLTH 5173</td>
<td>Nutrition and the Environment</td>
<td></td>
</tr>
<tr>
<td>HLTH 5183</td>
<td>Contemporary Health</td>
<td></td>
</tr>
<tr>
<td>HLTH 5193</td>
<td>Community Health</td>
<td></td>
</tr>
<tr>
<td>HUSC 5343</td>
<td>Research Problems</td>
<td></td>
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<tr>
<td>HUSC 5393</td>
<td>Family Communication</td>
<td></td>
</tr>
<tr>
<td>HUSC 5543</td>
<td>Theories of Child Development</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
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<tr>
<td>HUSC 553</td>
<td>Human Development</td>
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<tr>
<td>HUSC 5573</td>
<td>Theories of Personality</td>
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<tr>
<td>HUSC 5683</td>
<td>Family Ethics and Issues</td>
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<td>HUSC 5723</td>
<td>Family Financial Counseling</td>
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<td>HUSC 5733</td>
<td>Special Topics</td>
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<tr>
<td>HUSC 5753</td>
<td>Individual and Clinical Psychotherapy</td>
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</tr>
<tr>
<td>HUSC 5763</td>
<td>Nutrition and Wellness</td>
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<tr>
<td>JJUS 5113</td>
<td>Foundations of Criminal Justice</td>
<td></td>
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<tr>
<td>JJUS 5123</td>
<td>Foundations of Juvenile Justice</td>
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</tr>
<tr>
<td>JJUS 5223</td>
<td>Substance Abuse</td>
<td></td>
</tr>
<tr>
<td>JJUS 5243</td>
<td>Community Building and Organizing</td>
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</tr>
<tr>
<td>JJUS 5253</td>
<td>Domestic and Family Violence</td>
<td></td>
</tr>
<tr>
<td>JJUS 5433</td>
<td>Correctional Programming</td>
<td></td>
</tr>
<tr>
<td>JJUS 5523</td>
<td>Management of Juvenile Justice Organizations</td>
<td></td>
</tr>
<tr>
<td>JJUS 5763</td>
<td>Theories of Delinquency</td>
<td></td>
</tr>
<tr>
<td>JJUS 5773</td>
<td>Courts and Youth Offenders</td>
<td></td>
</tr>
<tr>
<td>JJUS 5783</td>
<td>Ethics</td>
<td></td>
</tr>
<tr>
<td>JJUS 5913</td>
<td>Special Topics in Juvenile Justice</td>
<td></td>
</tr>
<tr>
<td>JJUS 5973</td>
<td>Policy Analysis and Program Evaluation</td>
<td></td>
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</tbody>
</table>

**Concentrations (Select one from below)**

**Thesis Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOCG 5613</td>
<td>Thesis</td>
</tr>
<tr>
<td>SOCG 5623</td>
<td>Thesis</td>
</tr>
</tbody>
</table>

15 hours from the Sociology Elective Courses below

**Non-Thesis concentrations**

21 hours from the Sociology Elective Courses below

**Sociology Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCG 5243</td>
<td>Urban Sociology</td>
</tr>
<tr>
<td>SOCG 5263</td>
<td>Sociology of Education</td>
</tr>
<tr>
<td>SOCG 5283</td>
<td>Aspects Of Poverty</td>
</tr>
<tr>
<td>SOCG 5333</td>
<td>Criminology</td>
</tr>
<tr>
<td>SOCG 5353</td>
<td>Seminar in Race Relations</td>
</tr>
<tr>
<td>SOCG 5413</td>
<td>Contemporary Sociological Theory</td>
</tr>
<tr>
<td>SOCG 5423</td>
<td>Social Stratification</td>
</tr>
<tr>
<td>SOCG 5433</td>
<td>Theory of Criminal Justice System</td>
</tr>
<tr>
<td>SOCG 5443</td>
<td>Social Movements</td>
</tr>
<tr>
<td>SOCG 5453</td>
<td>Complex Organizations</td>
</tr>
<tr>
<td>SOCG 5463</td>
<td>Special Topics (see list below)</td>
</tr>
<tr>
<td>SOCG 5553</td>
<td>Sociology of Gender and Sex Roles</td>
</tr>
</tbody>
</table>

Total Hours: 36

1. P01 Juvenile Delinquency, P02 Poverty, P03 Deviant Behavior, P04 Global Sociology, P05 Persistent Poverty, P06 Environmental, P07 Family, P08 Demography, P09 Political Sociology, P10 Role of the Media.

**Minors in the Division of Social Work, Behavioral and Political Science**

Students are strongly encouraged to add minors to broaden their knowledge base and improve their chances in the workplace. The College offers minors in the following eight areas:

- African-American Studies
- Behavioral and Political Science
- Geography
- History
- Legal Studies
• Political Science
• Social Work
• Sociology

Requirements for a Minor in African American Studies

The African American Studies minor is interdisciplinary and provides students the opportunity to gain knowledge and understanding of the African American influence on the social, political, cultural, and intellectual development of America. Courses may not be used to satisfy multiple academic requirements such as core curriculum requirement, major and minor requirements.

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4213</td>
<td>African American History to 1865</td>
<td>3</td>
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<tr>
<td>HIST 4223</td>
<td>African American History 1865-Present</td>
<td>3</td>
</tr>
</tbody>
</table>

Select four (4) classes from the list below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 2283</td>
<td>African American Art</td>
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</tr>
<tr>
<td>CRJS 3933</td>
<td>Minorities and the Criminal Justice System</td>
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</tr>
<tr>
<td>DRAM 2223</td>
<td>African American Theatre II</td>
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</tr>
<tr>
<td>ENGL 3053</td>
<td>Survey of African-American Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL 3063</td>
<td>Studies in African-American Literature</td>
<td></td>
</tr>
<tr>
<td>GEOG 2743</td>
<td>Geography of Africa</td>
<td></td>
</tr>
<tr>
<td>HIST 2613</td>
<td>African History</td>
<td></td>
</tr>
<tr>
<td>HIST 3223</td>
<td>Women in History</td>
<td></td>
</tr>
<tr>
<td>HDFM 2553</td>
<td>Human Development: Life Span</td>
<td></td>
</tr>
<tr>
<td>MUSC 2333</td>
<td>Afro-American Music</td>
<td></td>
</tr>
<tr>
<td>POSC 2213</td>
<td>Blacks and the American Political System</td>
<td></td>
</tr>
<tr>
<td>POSC 3553</td>
<td>African Politics</td>
<td></td>
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<tr>
<td>SOCG 2003</td>
<td>Sociology of Minorities</td>
<td></td>
</tr>
<tr>
<td>SOCG 2023</td>
<td>African Family and Culture</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 18

Requirements for a Minor in Behavioral and Political Science

The Division offers a minor in Behavioral and Political Science designed to provide a sound understanding of the basic concepts, assumptions, research methods, and techniques used in the social sciences. The History Program administers the minor. Students are advised to consult with the Division Head in selecting appropriate courses for their minor. Any course taken for their minor may not be used to satisfy other requirements such as a core curriculum requirement or a major or minor requirement. Any combination of 18 semester credit hours with no more than six hours in any one discipline will constitute an integrated social science minor. Sample courses for this minor are listed below. Any courses from the disciplines listed below may be used to fulfill the minor requirements. Other disciplines related to social sciences may also be considered for substitution in consultation with the Division Head.

CRJS, ECON, GEOG, HIST, POSC, PSYC, and SOCG

Requirements for a Minor in Geography

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 1113</td>
<td>Introduction to Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1223</td>
<td>Introduction to Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2743</td>
<td>Geography of Africa</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3723</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

Three (3) courses from the list below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 2113</td>
<td>Introduction to Geographic Information System</td>
<td></td>
</tr>
<tr>
<td>GEOG 2523</td>
<td>Urban Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG 2633</td>
<td>Cultural Geography</td>
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</tr>
</tbody>
</table>

Total Hours: 21

Requirements for a Minor in History

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1813</td>
<td>World Civilization to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1823</td>
<td>World Civilization since 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2313</td>
<td>The U S -1492 to 1832</td>
<td>3</td>
</tr>
</tbody>
</table>
Requirements for a Minor in Legal Studies (18 SCH)

The Legal Studies minor is interdisciplinary and prepares students for work in the legal field (e.g., paralegal or law clerk), or post baccalaureate education in the law. The minor requires 18 semester credit hours. Courses may not be used to satisfy multiple academic requirements such as core curriculum requirement, major or other minor requirements.

Required:

- POSC 2143  Legal Studies 3
- PHIL 2303  Critical Thinking 3

Select four (4) courses from the classes below, no more than 6 SCH from any one discipline: 12

- BLAW 2203  Legal Environment of Business
- BLAW 2213  Business Law
- COMM 3513  Communication Law & Ethics
- CONS 4633  Construction Law and Ethics
- CRJS 1133  Principles of Criminal Justice
- CRJS 2613  Court Systems and Practices
- CRJS 2643  Criminal Procedure
- CRJS 2663  Evidence Law
- CRJS 3623  Criminal Law
- PHIL 2023  Ethics
- POSC 4113  American Constitutional Law
- POSC 4123  The Constitution and Private Rights
- POSC 4193  Special Topics in Political Science
- POSC 4203  Judicial Politics
- SOCG 3023  Correctional Treatment and Public Policy
- SOCG 3073  Sociology of Drug Enforcement
- SOCG 3083  Sociology of Probation and Parole

Total Hours 18

Requirements for a Minor in Political Science

(When the program area is taken as a Minor in another degree program)

- POSC 2133  Introduction to Political Science 3
- POSC 2413  Scope and Methods in Political Science 3

Four Political Science courses, 2000 level or higher 12

Total Hours 18

Requirements for a Minor in Social Work

A minor is social work is offered solely to enhance student's learning in the area of social services. This minor is only available for non-social work majors. The Council on Social Work Education (CSWE) does not accept a minor in social work as adequate preparation for entry level social work practice; neither does a minor in social work qualify students to take state licensure examinations. Students who seek social work as a minor in another degree program must complete:

- SOWK 2113  Introduction to the Field of Social Work 3
- SOWK 3113  Social Welfare Policy and Services 3
- SOWK 3133  Human Behavior and the Social Environment I 3
- SOWK 4123  Social Work Practice I 3

Two Social Work Electives 6

Total Hours 18
Requirements for a Minor in Sociology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCG 1013</td>
<td>General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCG 4733</td>
<td>Sociological Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Four Sociology Electives</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>18</td>
</tr>
</tbody>
</table>

Honor Societies, Clubs, and Service Organizations

Open to all majors and other interested persons, the WEB Dubois Historical Society provides non-classroom activities related to the study of history.

A national geography fraternity, the Iota Epsilon Chapter of Gamma Theta Upsilon recognizes high academic attainment on the part of students with either a major or a minor in geography. It is open to students who maintain an average of a “B” or better and serves both the needs for good human relationships and for sharing information concerning the field of geography.

Membership in Phi Alpha Theta International Honor Society is open to undergraduate students who have completed 12 semester hours of history with a grade point average of a 3.10 or above in history courses and 3.00 in two-thirds of the remainder of the course work, excluding history.

Membership in the Political Science Club is encouraged for all political science majors. The purpose of this organization is to promote an awareness of politics at all levels and facilitate understanding of public policy making through field trips, seminars, lecture series, and other educational activities.

Membership in the Rho Nu Chapter of Pi Sigma Alpha, the national Political Science Honor Society, is open to students, undergraduate and graduate, who have completed at least twelve semester hours of course work in political science at the 2000 level or higher, with an average grade of a “B” or higher. Consult the Political Science program coordinator for information on other requirements and the induction ceremony.

The Social Work Action Club (SWAC) is open to all social work majors and prospective majors. The club sponsors events that support local community residents and organizations. Members participate in local, regional, and national professional social work conferences and symposia.

Association of Black Social Work Students (ABSWS) Houston Chapter is open to students of African descent. The purpose of ABSWS is to promote the welfare and survival of the Black community and promote Black unity. The Organization sponsors campus and community events. Members participate in forums, workshops, and professional conferences at local, state, and national levels. Scholarship opportunities are also available.

The motto of Alpha Delta Mu Social Work Honor Society is “Advocate of the People”. The purpose of Alpha Delta Mu is to advance excellence in social work practice and to encourage, stimulate, and maintain scholarship of the individual members in all fields, particularly social work. Senior Social Work majors with a 3.0 minimum cumulative grade point average are eligible to join Alpha Delta Mu.

The George R. Ragland Scholars is open to all majors. Members must have a minimum GPA of 3.0 and be dedicated to social services and to helping others. Interested students in all disciplines are encouraged to join.

The Sociology Club is open to all sociology majors and minors, and to other students interested in gaining greater awareness about human societies and cultures.

Membership in Alpha Kappa Delta (AKD) International Sociology Honor Society is open to sociology majors of junior standing with a minimum 3.0 GPA. AKD promotes excellence in scholarship, research, and social and intellectual activities leading to the improvement of the human condition.

The Phi Alpha Honor Society, with the motto “Through Knowledge – the challenge to serve,” is a national Social Work honor society. The purposes of Phi Alpha Honor Society are to provide a closer bond among students of social work and promote humanitarian goals and ideals. Phi Alpha fosters high standards of education for social workers and invites into membership those who have attained excellence in scholarship and achievement in social work. Senior Social Work majors with an overall grade point average of 3.0 on 4.0 scale and a 3.25 grade point average in required social work courses are eligible to join the Prairie View A&M University Lambda NU Chapter of Phi Alpha Honor Society.

Language and Communication

Purpose and Goals

The faculty and staff of the Department of Languages and Communication work diligently to maintain a learning environment that enhances educational growth and professional opportunities for our students. Programs in Communication, English, and Language offer students a liberal arts education emphasizing the acquisition of language and communication skills as well as advanced knowledge of media techniques. The objective of the department is to prepare students for a broad range of careers in teaching, languages, professional writing, interpersonal communication, public relations, and media production.

Academic Standards

Students must earn a minimum grade of a “C” in all classes taken in their major disciplines and a minimum grade of a “C” in all classes taken in their minor disciplines (if applicable).
Affiliations


Bachelor of Arts in Communication Degree Program Requirement

<table>
<thead>
<tr>
<th>Core Curriculum</th>
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<tr>
<td>Foreign Language Requirements (Any One Language)</td>
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<td>Core Major Requirements</td>
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<tr>
<td>COMM 1713</td>
<td>Introduction to Mass Communication</td>
</tr>
<tr>
<td>COMM 2603</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>COMM 3513</td>
<td>Communication Law &amp; Ethics</td>
</tr>
<tr>
<td>COMM 4503</td>
<td>Media Criticism</td>
</tr>
<tr>
<td>or COMM 4513</td>
<td>Rhetorical Criticism</td>
</tr>
<tr>
<td>COMM 4533</td>
<td>Communication Research</td>
</tr>
<tr>
<td>COMM 4893</td>
<td>Senior Communication Capstone</td>
</tr>
<tr>
<td>Communication Writing Requirements</td>
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<tr>
<td>COMM 2513</td>
<td>Principles of Writing for the Discipline</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>COMM 2523</td>
<td>Broadcast Writing</td>
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<tr>
<td>COMM 2533</td>
<td>Screen Writing</td>
</tr>
<tr>
<td>COMM 2543</td>
<td>News Writing and Reporting</td>
</tr>
<tr>
<td>COMM 3523</td>
<td>Feature and Magazine Writing</td>
</tr>
<tr>
<td>COMM 4543</td>
<td>Advanced Writing for the Discipline</td>
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<td>Select one of the following concentrations:</td>
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<tr>
<td>Communication Studies Concentration Requirement</td>
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<tr>
<td>COMM 2623</td>
<td>Small Group Communication</td>
</tr>
<tr>
<td>Select five of the following:</td>
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<tr>
<td>COMM 2553</td>
<td>Communication, Globalization, International Media</td>
</tr>
<tr>
<td>COMM 2613</td>
<td>Argumentation and Debate</td>
</tr>
<tr>
<td>COMM 2633</td>
<td>Voice and Diction</td>
</tr>
<tr>
<td>COMM 2643</td>
<td>Media Literacy</td>
</tr>
<tr>
<td>COMM 2713</td>
<td>Visual Communication</td>
</tr>
<tr>
<td>COMM 3213</td>
<td>Media Management</td>
</tr>
<tr>
<td>COMM 3603</td>
<td>Persuasion</td>
</tr>
<tr>
<td>COMM 3643</td>
<td>Nonverbal Communication</td>
</tr>
<tr>
<td>COMM 3653</td>
<td>Gender Communication</td>
</tr>
<tr>
<td>COMM 3663</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>COMM 3673</td>
<td>Communication and Conflict Management</td>
</tr>
<tr>
<td>COMM 3713</td>
<td>Communication Technology</td>
</tr>
<tr>
<td>COMM 3743</td>
<td>Principles of Advertising</td>
</tr>
<tr>
<td>COMM 3753</td>
<td>Principles of Public Relations</td>
</tr>
<tr>
<td>COMM 4603</td>
<td>Organizational Communications</td>
</tr>
<tr>
<td>COMM 4523</td>
<td>Communication Theory</td>
</tr>
<tr>
<td>COMM 4613</td>
<td>Political Communication</td>
</tr>
<tr>
<td>COMM 4623</td>
<td>Rhetoric of Social Movements</td>
</tr>
<tr>
<td>COMM 4693</td>
<td>Special Topics in Communication Studies</td>
</tr>
<tr>
<td>COMM 4703</td>
<td>Professional Internship</td>
</tr>
<tr>
<td>COMM 4713</td>
<td>Voice and Performance</td>
</tr>
</tbody>
</table>
COMM 4703 Professional Internship

Select five of the following:

COMM 1733 Basic Digital Video Production
COMM 2553 Communication, Globalization, International Media
COMM 2633 Voice and Diction
COMM 2643 Media Literacy
COMM 2703 Photojournalism
COMM 2713 Visual Communication
COMM 2723 Copy and Editing Production
COMM 3213 Media Management
COMM 3713 Communication Technology
COMM 3723 Digital Video Production I
COMM 3733 Television Studio Production
COMM 3743 Principles of Advertising
COMM 3753 Principles of Public Relations
COMM 4523 Communication Theory
COMM 4613 Political Communication
COMM 4713 Voice and Performance
COMM 4723 Digital Video Production II
COMM 4733 Advanced Nonlinear Editing
COMM 4793 Special Topics in Mass Communication
COMM 4703 Professional Internship

Minor Requirements

Unrestricted Electives

Total Hours

1. All Core Curriculum requirements are shown on the suggested degree program. COMM 2643 and COMM 2603 are options for the core, but they may not satisfy both core and major requirements.

2. May be repeated up to 6 SCH

3. Communication majors are required to select a minor of their choice. They must satisfy the catalog requirements for the selected minor.

4. Electives may be chosen from any area, though additional COMM courses are encouraged.

Professional Internship. COMM 4703 is a professional internship required of communication majors with a concentration in mass communication. It may be repeated for up to 6 SCH.

Communication Studies Track At Northwest Houston Center Campus (2+2 Articulation)

Core Major Requirements

COMM 3513 Communication Law & Ethics
COMM 4503 Media Criticism
COMM 4513 or Rhetorical Criticism
COMM 4533 Communication Research
COMM 4893 Senior Communication Capstone

Communication Writing Requirements

COMM 2513 Principles of Writing for the Discipline

Select one of the following:

COMM 2523 Broadcast Writing
COMM 2533 Screen Writing
COMM 2543 News Writing and Reporting
COMM 3523 Feature and Magazine Writing
COMM 4543 Advanced Writing for the Discipline

Communication Studies Concentration Requirement

Select five of the following:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 2553</td>
<td>Communication, Globalization, International Media</td>
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<tr>
<td>COMM 2613</td>
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<td>COMM 2633</td>
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<td>COMM 4703</td>
<td>Professional Internship</td>
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<tr>
<td>COMM 4713</td>
<td>Voice and Performance</td>
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</table>

**Minor Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td></td>
<td><strong>Total Hours</strong> 60</td>
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</tbody>
</table>

1. Students are expected to present 60 hours of transfer credit, including the following: a 42-hour Core Curriculum; 6 hours of foreign language; COMM 1713 Introduction to Mass Communication; COMM 2603 Interpersonal Communication; COMM 2623 Small Group Communication; and a 3-hour unrestricted elective.

2. If the student presents acceptable transfer credit for a communication writing course, he or she will need an additional unrestricted elective to meet the minimum degree hours.

3. Communication majors are required to select a minor of their choice. They must satisfy the catalog requirements for the selected minor.

4. Electives may be chosen from any area, though additional COMM courses are encouraged.

**Bachelor of Arts in English Degree Program Requirements**

<table>
<thead>
<tr>
<th>Core Curriculum</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Foreign Language Requirements (one language)</td>
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<tr>
<td>English Major Requirements (24 SCH)</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 2263</td>
<td>English Literature to 1800</td>
</tr>
<tr>
<td>ENGL 2273</td>
<td>English Literature after 1800</td>
</tr>
<tr>
<td>ENGL 2423</td>
<td>American Literature to 1865</td>
</tr>
<tr>
<td>ENGL 2433</td>
<td>American Literature 1865 to Present</td>
</tr>
<tr>
<td>ENGL 3223</td>
<td>Advanced Grammar</td>
</tr>
<tr>
<td>ENGL 3153</td>
<td>Literary Theory and Criticism</td>
</tr>
<tr>
<td>ENGL 4433</td>
<td>Special Topics in English</td>
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</tbody>
</table>

**African-American Survey (select one)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 3053</td>
<td>Survey of African-American Literature</td>
</tr>
<tr>
<td>ENGL 3063</td>
<td>Studies in African-American Literature</td>
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</table>

**Concentration (Select one from below)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 4223</td>
<td>Shakespeare</td>
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</table>

**Total Hours**

| Total Hours | 120 |

**Without Teacher Certification Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 4223</td>
<td>Shakespeare</td>
</tr>
</tbody>
</table>
ENGL 4233 Medieval Literature
9 hours of ENGL Electives (2000 level or above) 9
Minor 1 18
Unrestricted Electives 18
Total Hours 48

With Teacher Certification Concentration 2
ENGL 2253 Adolescent Literature 3
ENGL 2383 Survey of World Literature 3
ENGL 3023 Cr Wr Processes 3
ENGL 3043 Professional Writing for Electronic Media 3
ENGL 4223 Shakespeare 3
RDNG 4633 Developmental Reading 3
RDNG 4653 Foundations of Reading Instruction 3
SPED 3003 Introduction to Exceptional Children 3
CUIN 3003 Educational Foundations 3
CUIN 3013 Educational Psychology 3
ENGL 4003 Teaching English Language Arts 3
CUIN 4013 Instructional Methods and Classroom Management 3
CUIN 4826 Student Teaching Secondary II 6
Additional Foreign Language (Same language as above) 3
Unrestricted Elective 3
Total Hours 48

1 Electives can be reduced if the chosen academic minor requires more than 18 semester credit hours of coursework.
2 Students should apply for admission to teacher education during the second semester of their sophomore year to be able to enroll in CUIN courses during the junior year. Consult an advisor for the current criteria for admission.

Minors in the Department of Languages and Communications

Minor in Communication (other than COMM majors)
Any combination of 18 SCH in COMM courses. Students must observe prerequisites for any selected courses. Most courses require COMM 1713 and a COMM writing course as prerequisites.

Minor in English (18 Semester Credit Hours)

Core Minor Courses (both required) 6
ENGL 3153 Literary Theory and Criticism
ENGL 4433 Special Topics in English

British Survey (select one) 3
ENGL 2263 English Literature to 1800
ENGL 2273 English Literature after 1800

American Survey (select one) 3
ENGL 2423 American Literature to 1865
ENGL 2433 American Literature 1865 to Present

English Electives (select two at levels indicated) 1 6
One English course at the 3000 level or above
One English course at 2000 level or above 2
Total Hours 18

1 Students who may want to use their English minor for future teaching should take ENGL electives at the 3000 or 4000 levels.
2 Students can use ENGL 2153 and ENGL 2383 either to satisfy the core curriculum requirements for Language, Philosophy and Culture or to satisfy ENGL requirements for the minor, but not both.
Minor in Spanish

SPAN 2013  Intermediate Spanish I  3
SPAN 2023  Intermediate Spanish II  3
Select 12 hours from any 3000 or 4000 level SPAN courses  12
Total Hours  18

Minor in Humanities

A minor in humanities offers an interdisciplinary program of study that allows students to explore various areas of interest. Study in humanities expands knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Classes may not count toward the core curriculum, major and minor.

Eligible course disciplines include: ARAB (arabic), ARCH (Architecture), ARTS (Arts), CHIN (Chinese), DRAM (Theatre), ENGL (English), FLLT (Foreign Languages), HUMA (Humanities), MUSC (Music), PHIL (Philosophy), and SPAN (Spanish). Courses not listed as elective options may be considered for the minor, but must be approved by the Department Head for Languages and Communications.

HUMA 1303  Introduction to Humanities  3
Foreign Language (2000 level or higher)  3
Humanities Electives (at least 6 hours must be upper level): 1  12
ARAB 2013  Intermediate Arabic I
ARAB 2023  Intermediate Arabic II
ARCH 2233  History of Architecture I
ARCH 2243  History of Architecture II
ARTS 2223  History of Art I
ARTS 2233  History of Art II
ARTS 2243  Introduction to African Arts
ARTS 2283  African American Art
CHIN 2013  Intermediate Chinese I
CHIN 2023  Intermediate Chinese II
DRAM 1103  Introduction to Theatre
DRAM 2223  African American Theatre II
DRAM 3113  Contemporary Theatre
ENGL 2153  Introduction to Literature
ENGL 2253  Adolescent Literature
ENGL 2263  English Literature to 1800
ENGL 2273  English Literature after 1800
ENGL 2333  Studies in Literature
ENGL 2383  Survey of World Literature
ENGL 2423  American Literature to 1865
ENGL 2433  American Literature 1865 to Present
ENGL 3053  Survey of African-American Literature
ENGL 3063  Studies in African-American Literature
ENGL 3153  Literary Theory and Criticism
ENGL 3243  Studies in American Literature
ENGL 3273  The Romantic Movement
ENGL 3283  Victorian Literature
ENGL 4223  Shakespeare
ENGL 4233  Medieval Literature
ENGL 4243  Studies in the Novel
ENGL 4433  Special Topics in English
FLLT 4993  Independent Study
MUSC 1213  Fundamentals of Music
MUSC 1313  Music in Contemporary Life
MUSC 2213  Music Theory
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MUSC 2323</td>
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<tr>
<td>MUSC 2333</td>
<td>Afro-American Music</td>
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<tr>
<td>MUSC 3313</td>
<td>Music History</td>
</tr>
<tr>
<td>MUSC 3323</td>
<td>Music History</td>
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<tr>
<td>PHIL 2013</td>
<td>Introduction to Philosophy</td>
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<td>PHIL 2023</td>
<td>Ethics</td>
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<td>PHIL 2303</td>
<td>Critical Thinking</td>
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<td>History of Philosophy</td>
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<td>SPAN 2013</td>
<td>Intermediate Spanish I</td>
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<td>Intermediate Spanish II</td>
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<tr>
<td>SPAN 3023</td>
<td>Survey of Spanish Literature I</td>
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<td>Survey of Spanish Literature II</td>
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<td>SPAN 3063</td>
<td>Spanish-American Literature I</td>
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<td>SPAN 3073</td>
<td>Spanish-American Literature II</td>
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<tr>
<td>SPAN 3093</td>
<td>Hispanic Civilization and Culture I</td>
</tr>
<tr>
<td>SPAN 3203</td>
<td>Spanish Conversation</td>
</tr>
<tr>
<td>SPAN 3213</td>
<td>Spanish Composition</td>
</tr>
<tr>
<td>SPAN 3303</td>
<td>Hispanic American Film</td>
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<td>SPAN 4003</td>
<td>Hispanic Civilization and Culture II</td>
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<tr>
<td>SPAN 4433</td>
<td>Special Topics in Spanish</td>
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</table>

1 No more than 6 SCH from any single Humanities prefix on the list of eligible courses; including foreign languages.

**Sample Minor Plan I**

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>HUMA 1303</td>
<td>Introduction to Humanities</td>
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<tr>
<td>ARTS 1203</td>
<td>Introduction to Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 3113</td>
<td>Contemporary Theatre</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 4233</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2013</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 2013</td>
<td>Intermediate Spanish I</td>
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**Sample Minor Plan II**

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<td>ARAB 2013</td>
<td>Intermediate Arabic I</td>
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<td>ARAB 2023</td>
<td>Intermediate Arabic II</td>
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<tr>
<td>ARTS 2223</td>
<td>History of Art I</td>
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</tr>
<tr>
<td>ENGL 3243</td>
<td>Studies in American Literature</td>
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</tr>
<tr>
<td>MUSC 2333</td>
<td>Afro-American Music</td>
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</table>

**Sample Minor Plan III**

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<tbody>
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<td>HUMA 1303</td>
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</tr>
<tr>
<td>ARCH 2233</td>
<td>History of Architecture I</td>
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</tr>
<tr>
<td>ENGL 4223</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2333</td>
<td>Afro-American Music</td>
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</tr>
<tr>
<td>SPAN 2023</td>
<td>Intermediate Spanish II</td>
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</tr>
<tr>
<td>SPAN 3023</td>
<td>Survey of Spanish Literature I</td>
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</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>
Clubs and Organizations

The Department of Languages and Communication has an award-winning intercollegiate debate team and an active student chapter of the National Association of Black Journalists (NABJ). Check the LCOM Facebook page, Twitter feed, and bulletin boards in Hilliard Hall for notices about meeting dates and times.

Honor Societies

The department sponsors chapters of the following national honor societies: Lambda Pi Eta, Communication; Sigma Tau Delta, English; Alpha Mu Gamma, foreign languages; and Sigma Delta Pi, Spanish. Generally, these societies require that members have completed 18 semester hours with a least a B average in the discipline.

Spanish

Mathematics

Mission, Purpose and Goals

The Department of Mathematics offers an innovative and comprehensive undergraduate program in mathematics from which a major may select one of three emphasis options: statistics, applied mathematics and mathematics teaching. Students are encouraged to be creative in putting together a course of study that will lead to the fulfillment of individual professional goals. The curricula are rigorous and demanding but flexible enough to allow students to sample several disciplines or to focus on a special interest within the major area. Faculty advisors are available to assist the students on a continual basis to ensure proper course selection toward graduation and relative to career goals.

Academic Standards

Students must earn a “C” or higher in all major courses and a minimum grade of a “C” in all classes taken in their minor disciplines, if any. Students must also earn a “C” or higher in all Mathematics prerequisite courses.

Special Emphasis Options

The following special emphasis options in mathematics allow students to select electives in special areas of professional interest:

<table>
<thead>
<tr>
<th>Statistics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3033</td>
<td>Principles of Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3043</td>
<td>Principles of Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3613</td>
<td>Intro Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4043</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4073</td>
<td>Introduction to Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4603</td>
<td>Intro Bayesian Stat</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applied Mathematics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 4003</td>
<td>Mathematics Modeling and Applications</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4063</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4093</td>
<td>Advanced Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4133</td>
<td>Fourier Series and Wavelets</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4203</td>
<td>Introduction to Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4223</td>
<td>Introduction to Complex Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics Teaching</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3003</td>
<td>Mathematics in Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3103</td>
<td>History of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3163</td>
<td>Mathematics Understanding</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3933</td>
<td>Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4003</td>
<td>Mathematics Modeling and Applications</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4053</td>
<td>Mathematics Teaching Capstone Course</td>
<td>3</td>
</tr>
</tbody>
</table>

1 The College of Education will identify certification requirements for teaching in the public schools.

The requirements for each program option include proficiency in MATH 1124 and MATH 2024 as prerequisites to the mathematics core courses.
Departmental Regulations for Placement and Academic Progress

Academic Placement
Mathematics majors and minors are placed in freshman mathematics courses according to scores earned on a mathematics-qualifying test. An entering student with a strong mathematics background is encouraged to take advanced placement tests, since high scores on these examinations may exempt students from certain freshman courses. He/she is also encouraged to take Calculus Readiness test at the Mathematics Department so that he/she may be exempted from taking pre-requisite courses for MATH 1124, Calculus with Analytic Geometry I. (Please note: Student does not receive any course credit from passing the Calculus Readiness test, only a waiver, in order to take MATH 1124.)

Pre-requisite Requirement
All mathematics pre-requisite courses must be passed with a grade of a “C” or higher.

Academic Standards
Mathematics majors are expected to maintain high standards of academic achievement. All major requirements must be maintained with no letter grade below a “C”.

Bachelor of Science in Mathematics Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
</tr>
<tr>
<td>MATH 2043</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>MATH 2053</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>MATH 3013</td>
<td>Modern Algebra</td>
</tr>
<tr>
<td>MATH 3014</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MATH 3023</td>
<td>Probability and Statistics</td>
</tr>
<tr>
<td>MATH 3073</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 4001</td>
<td>Mathematics Colloquium</td>
</tr>
<tr>
<td>MATH 4063</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td>MATH 4083</td>
<td>Advanced Calculus I</td>
</tr>
<tr>
<td><strong>Approved 3000 or 4000 Level Mathematics Courses</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Other Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>English (Writing)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Concentration (Select one from below)</strong></td>
<td>35</td>
</tr>
<tr>
<td>Without Teacher Certification Concentration</td>
<td></td>
</tr>
<tr>
<td>MATH 4893</td>
<td>Mathematics Capstone Course</td>
</tr>
<tr>
<td>Computer Science Electives</td>
<td>11</td>
</tr>
<tr>
<td>General Electives</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>120</td>
</tr>
<tr>
<td>With Teacher Certification Concentration</td>
<td></td>
</tr>
<tr>
<td>MATH 4053</td>
<td>Mathematics Teaching Capstone Course</td>
</tr>
<tr>
<td>CUIN 3003</td>
<td>Educational Foundations</td>
</tr>
<tr>
<td>CUIN 3013</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>CUIN 4103</td>
<td>Instructional Planning and Assessment</td>
</tr>
<tr>
<td>CUIN 4113</td>
<td>Instructional Methodology and Classroom Management</td>
</tr>
<tr>
<td>CUIN 4826</td>
<td>Student Teaching Secondary II</td>
</tr>
<tr>
<td>Computer Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (one language)</td>
<td>6</td>
</tr>
<tr>
<td>General Electives</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>35</td>
</tr>
</tbody>
</table>
For students who are double majors in Computer Science and Mathematics or Computer Science majors with a minor in Mathematics, courses taken in the Computer Science major or other higher level computer courses will satisfy the 11 SCH of Computer Science courses listed above in the Support Area.

Any COMP course can be taken to satisfy the Computer Science requirement or ELEG 1043.

Any WRITING (ENGL) course can be taken to satisfy the English requirement.

Any course can be taken to satisfy the General Electives requirement.

Minor Requirements of Mathematics as a Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2053</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3014</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>Approved 3000 or 4000-level Courses</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

Honor Societies and Club

**The Mathematics Club.** Membership in The Mathematics Club is expected of all mathematics majors and is open to mathematics minors and any other students interested in enhancing their personal, interpersonal and academic growth. The Club promotes unity and support among members. During each club year, activities focus on leadership development, group study, research skills, and a continual update on pre-service, career opportunities in mathematics, and related areas.

**Beta Kappa Chi.** The purpose of Beta Kappa Chi is to advance scientific education through original investigations, the dissemination of scientific knowledge, and the stimulation of scholarship in the pure and applied sciences. Membership is open to students in the upper fifth of their college class who have completed at least 45 semester credit hours of college work. Seventeen of these hours must be in one of the sciences recognized by the society, with a minimum grade point average of a “B” in the sciences and a minimum general college average of a “B”.

**Pi Mu Epsilon.** Students eligible for membership in Pi Mu Epsilon, a national honor society, include: sophomore honor students with a grade point average of 4.00 in mathematics (including two courses in calculus); juniors and seniors with a minimum grade point average of 3.00 in mathematics and a general scholastic average of at least 2.80 and graduate students in the department.

Music

Department of Music

The Department of Music is committed to both degree-producing and extra-curricular arts programs. The music department offers the Bachelor of Arts in Music Degree with three degree concentrations: EC-12 Teacher Certification, Performance or General. The EC-12 concentration is designed for students wishing to become certified public or private school music teachers in the state of Texas. The Performance concentration is intended for students with the aptitude to pursue professional careers as concert performers and/or music instructors at the university level. The General concentration requires a minor subject area outside of music and offers a broad-based university education with a primary concentration in music and a secondary concentration in another field of study.

**Music Program Objectives:**

1. To prepare students for professional careers and graduate study in music.
2. To provide musical and technological knowledge and solo and ensemble experiences in an educational environment that stimulates academic and musical development.
3. To transmit to students the knowledge of Western and non-Western music through studies in music history, literature, theory, and performance.
4. To present music performances on the University campus and in the community for cultural enhancement.
5. To provide general music instruction and experiences to non-music majors.

**Admission Requirements and Regulations for Academic Progress**

In addition to meeting the general university core requirements, music majors and minors must earn a minimum grade of “C” in each music course in the respective degree plan. Students who have not met TSI requirements on entering the program must do so by the end of their sophomore year or they will not be allowed to progress into upper division courses. Students must also fulfill the following requirements, listed below, to enter the program, remain in the program, and/or graduate from the program:
Audition: All entering music majors (freshmen and transfer students) must audition for the music faculty. Specific audition dates and requirements are listed on the music department website. Previous musical study, e.g., private lessons, participation in band, choir, orchestra, or other ensemble is essential for success in university music degree programs.

Entrance Requirements – Performance Concentration: Freshman and transfer students may enter the Performance concentration on probationary status based on an exemplary initial audition before applied music faculty. At the end of the first year of study, students in this degree plan must perform a successful qualifying jury at the end of the freshman year (or first year in the department for transfers) in order to remain in the curriculum. Current students who wish to change from the BA (General) or (EC-12) curricula to the performance concentration will be required to perform a qualifying jury before a faculty committee who will determine if the student has the requisite technical and musical skills for this concentration. This jury must take place no later than the end of the sophomore year. Transfer students will have to qualify for the program immediately based on the results of their entrance audition.

Music Theory Placement Examination: All freshman music students are required to take the Music Theory Placement Examination. Transfer students must provide a recent transcript so that theory skills may be evaluated.

Ensemble Requirements: All music majors must participate in a large ensemble for eight semesters. Large ensembles are defined as Marching Band, Wind Ensemble, Orchestra, and University Concert Chorale. As part of the large ensemble requirement, majors with an instrumental focus (wind, brass, percussion) must take four semesters of Marching Band and four semesters of Wind Ensemble; majors with a strings focus (strings) must take eight semesters of Orchestra; majors with a vocal or piano focus must take eight semesters of University Concert Chorale. Students in the Performance concentration must earn additional ensemble credits through participation in smaller ensembles. All students may receive additional ensemble credit through participation in the Jazz Ensemble, Brass Ensemble, Percussion Ensemble, Chamber Singers, or Chamber Music course. This additional credit does not replace the required large ensemble credit.

Semester Applied Music Examinations: Each music major is enrolled in private lessons every semester; the student is required to perform a jury before a faculty committee for evaluation at the end of each semester. The minimum length of the jury varies by degree program.

Mid-Level Proficiency Examinations: Each student will undergo Mid-Level Proficiency Examinations in Music Theory and Applied Music at the end of the Sophomore year. The examinations must be passed before entering 3000-level music courses in each area of examination. Specific requirements for the Applied Music Examination are published in the 2000-course level applied music course syllabus.

Recital Requirements: All music majors have recital requirements as an important capstone experience within each concentration. EC-12 and General students perform one degree recital after eight semesters of applied music study. Performance students perform two degree recitals: junior and senior. Each student must perform a pre-recital jury for applied music faculty to determine readiness for the recital.

Piano Proficiency Examination: All students in music (except those with a focus on piano) are required to pass the piano proficiency examination before proceeding to student teaching and/or before graduation. Ideally, the examination should be taken immediately after the completion of four semesters of piano. Students are advised to continue studying piano until the examination is passed.

Music Seminar: Listening and performing experiences are integral to the development of musicians. Therefore, the department requires that all music majors attend the weekly Music Seminar. Before graduation, music majors must have accumulated attendance credits for (a total of) 120 performances. To fulfill this requirement, it is recommended that music majors attend fifteen seminar performances each semester for eight semesters. Each student is also required to perform on seminar a minimum number of times each semester depending on degree option. The applied lesson grade is partially based on those performances; performance requirements for seminar are published in the respective applied music syllabus.

Attendance at Concerts and Recitals: Music students are strongly encouraged to attend all music concerts and recitals presented by the department.

Transfer Credits: Students transferring from other institutions must validate their standing in applied music through a music audition and their standing in music theory through the music theory placement examination or through evaluation of coursework from the transcript.

Music Electives for Non-Majors

The following courses are offered to non-majors as electives, or for the satisfaction of the core curriculum requirement in the Creative arts (1) or Language, Philosophy, and Culture (2):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1313</td>
<td>Music in Contemporary Life</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2333</td>
<td>Afro-American Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1213</td>
<td>Fundamentals of Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2343</td>
<td>Survey of World Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1111</td>
<td>University Band</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>All of the following courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>require an audition for placement</td>
<td></td>
</tr>
<tr>
<td>MUSC 1121</td>
<td>University Choir</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1131</td>
<td>Chamber Vocal Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1141</td>
<td>Jazz Band</td>
<td>1</td>
</tr>
</tbody>
</table>
Music Degree Program Requirements

Audition: Music students must audition before the faculty. Previous participation in music ensembles and/or private study is helpful to entering students.

Placement Examination: All new students in music are required to take the music theory placement examination.

Concentrations: All music majors must choose and complete the degree plan for one of the following options:

- Bachelor of Arts in Music - General-Voice Concentration
- Bachelor of Arts in Music - General-Piano Concentration
- Bachelor of Arts in Music - General-Instrumental Concentration
- Bachelor of Arts in Music - EC-12 Teacher Certification-Voice Concentration
- Bachelor of Arts in Music - EC-12 Teacher Certification-Piano Concentration
- Bachelor of Arts in Music - EC-12 Teacher Certification-Instrumental Concentration
- Bachelor of Arts in Music - Performance-Voice Concentration
- Bachelor of Arts in Music - Performance-Piano Concentration
- Bachelor of Arts in Music - Performance-Instrumental Concentration (Brass, Percussion, Woodwinds only)

*** Majors must choose one applied area for the degree from the following: voice, piano, brass (one instrument), strings (one instrument), woodwinds (one instrument), percussion. Additional applied music courses in voice or secondary instruments may be taken (by permission of instructor) but will not apply to the eight semester requirement for the degree.

Applied Music Courses

The following sequential course numbers are used for private lessons for Strings, Piano, Voice, Brass, Woodwinds, and Percussion. Lessons with course numbers ending in ’1’ earn 1 semester credit hour (SCH) and are primarily for majors following the Bachelor of Arts in Music- EC-12 Teacher certification curriculum. Lessons with course numbers ending in ’2’ earn 2 SCH and are for the Bachelor of Arts in Music-General. Lessons with course numbers ending in ’3’ earn 3 SCH and are for the Bachelor of Arts in Music Performance. Music minors typically take lessons of 1 or 2 SCH credit hour (see music minor requirements). Performances in seminar and performance exams (juries) are required for all majors taking applied music in addition to the recital requirements for each concentration.

<table>
<thead>
<tr>
<th>Piano</th>
<th>Voice</th>
<th>Brass</th>
<th>Woodwind</th>
<th>Percussion</th>
<th>Strings</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1531</td>
<td>MUSC 1651</td>
<td>MUSC 1711</td>
<td>MUSC 1811</td>
<td>MUSC 1911</td>
<td>MUSC 1361</td>
</tr>
<tr>
<td>MUSC 1512</td>
<td>MUSC 1632</td>
<td>MUSC 1712</td>
<td>MUSC 1812</td>
<td>MUSC 1912</td>
<td>MUSC 1362</td>
</tr>
<tr>
<td>MUSC 1513</td>
<td>MUSC 1613</td>
<td>MUSC 1713</td>
<td>MUSC 1813</td>
<td>MUSC 1913</td>
<td>MUSC 1363</td>
</tr>
<tr>
<td>MUSC 1541, MUSC 1522, MUSC 1523</td>
<td>MUSC 1661, MUSC 1642, MUSC 1623</td>
<td>MUSC 1721, MUSC 1722, MUSC 1723</td>
<td>MUSC 1821, MUSC 1822, MUSC 1823</td>
<td>MUSC 1921, MUSC 1922, MUSC 1923</td>
<td>MUSC 1372</td>
</tr>
</tbody>
</table>
Large Ensembles

The following sequential numbers are used for large ensembles. Each ensemble enrollment carries one semester credit hour (1 SCH). A total of eight (8) credits is required for degree completion. All degree programs require eight semesters of large ensemble credits as listed below. Other music department ensembles (Brass Ensemble, Chamber Music, Jazz Band, Percussion Ensemble, Vocal Chamber Music) may be taken for elective credit, not to replace large ensemble credit.

<table>
<thead>
<tr>
<th>Choir</th>
<th>Band</th>
<th>Wind Ensemble</th>
<th>Orchestra</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1121</td>
<td>MUSC 1111</td>
<td>MUSC 1771 - MUSC 1781</td>
<td>MUSC 1161</td>
</tr>
<tr>
<td>MUSC 2121</td>
<td>MUSC 2111</td>
<td>MUSC 2771 - MUSC 2781</td>
<td>MUSC 2161</td>
</tr>
<tr>
<td>MUSC 3121</td>
<td>MUSC 3111</td>
<td>MUSC 3771 - MUSC 3781</td>
<td>MUSC 3161</td>
</tr>
<tr>
<td>MUSC 4121</td>
<td>MUSC 4111</td>
<td>MUSC 4771 - MUSC 4781</td>
<td>MUSC 4161</td>
</tr>
</tbody>
</table>

Bachelor of Arts in Music Degree Requirements

Core Curriculum (See core curriculum pages in the university catalog for course options) 1 42

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1211</td>
<td>Sight Singing and Ear Training I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1221</td>
<td>Sight Singing and Ear Training II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1233</td>
<td>Music Theory (Theory I)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1243</td>
<td>Music Theory (Theory II)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1413</td>
<td>Music Technology</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2211</td>
<td>Sight Singing III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2221</td>
<td>Sight Singing IV</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2213</td>
<td>Music Theory (Theory III)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2223</td>
<td>Music Theory (Theory IV)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2323</td>
<td>Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3212</td>
<td>Analysis of Music (Analysis I)</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3222</td>
<td>Analysis of Music (Analysis II)</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3313</td>
<td>Music History (Music History I)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3323</td>
<td>Music History (Music History II)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 4022</td>
<td>Choral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>or MUSC 4032</td>
<td>Instrumental Conducting</td>
<td>2</td>
</tr>
</tbody>
</table>

Large Ensemble: (Select one course from each group below according to your area of focus and take each course twice) 3 8

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1111</td>
<td>University Band (2 hours)</td>
</tr>
<tr>
<td>or MUSC 1121</td>
<td>University Choir</td>
</tr>
<tr>
<td>or MUSC 1161</td>
<td>University Orchestra</td>
</tr>
<tr>
<td>or MUSC 1771</td>
<td>Wind Ensemble</td>
</tr>
<tr>
<td>or MUSC 1781</td>
<td>Wind Ensemble</td>
</tr>
<tr>
<td>MUSC 2111</td>
<td>University Band (2 hours)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>MUSC 2121</td>
<td>University Choir</td>
</tr>
<tr>
<td>MUSC 2161</td>
<td>University Orchestra</td>
</tr>
<tr>
<td>MUSC 2771</td>
<td>Wind Ensemble</td>
</tr>
<tr>
<td>MUSC 2781</td>
<td>Wind Ensemble</td>
</tr>
<tr>
<td>MUSC 3111</td>
<td>University Band (2 hours)</td>
</tr>
<tr>
<td>MUSC 3121</td>
<td>University Choir</td>
</tr>
<tr>
<td>MUSC 3161</td>
<td>University Orchestra</td>
</tr>
<tr>
<td>MUSC 3771</td>
<td>Wind Ensemble</td>
</tr>
<tr>
<td>MUSC 3781</td>
<td>Wind Ensemble</td>
</tr>
<tr>
<td>MUSC 4111</td>
<td>University Band (2 hours)</td>
</tr>
<tr>
<td>MUSC 4121</td>
<td>University Choir</td>
</tr>
<tr>
<td>MUSC 4161</td>
<td>University Orchestra</td>
</tr>
<tr>
<td>MUSC 4771</td>
<td>Wind Ensemble</td>
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<tr>
<td>MUSC 4781</td>
<td>Wind Ensemble</td>
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</table>

**General Voice Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1611</td>
<td>French Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1621</td>
<td>German Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1631</td>
<td>Italian Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1641</td>
<td>English Diction/Song Literature</td>
</tr>
</tbody>
</table>

**Applied Music: Take each course below twice**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>MUSC 1651</td>
<td>Voice (2 hours)</td>
</tr>
<tr>
<td>MUSC 2632</td>
<td>Voice (4 hours)</td>
</tr>
<tr>
<td>MUSC 3612</td>
<td>Voice (4 hours)</td>
</tr>
<tr>
<td>MUSC 4612</td>
<td>Voice (4 hours)</td>
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</table>

**Minor**

- 2 credits

**Total Hours**

- 36 credits

**General-Piano Concentration**

**Applied Music: Take each course below twice**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>MUSC 1512</td>
<td>Piano (4 hours)</td>
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<tr>
<td>MUSC 2512</td>
<td>Piano (4 hours)</td>
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<tr>
<td>MUSC 3512</td>
<td>Piano (4 hours)</td>
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<tr>
<td>MUSC 4512</td>
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<table>
<thead>
<tr>
<th>Music Electives</th>
<th>2 credits</th>
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<tbody>
<tr>
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**Total Hours**

- 36 credits

**General-Instrumental Concentration**

**Applied Music: Select the appropriate course for your area of focus from each group below and take each course twice (4 hours required in each group)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>MUSC 1362</td>
<td>Strings</td>
</tr>
<tr>
<td>MUSC 1712</td>
<td>Brass</td>
</tr>
<tr>
<td>MUSC 1812</td>
<td>Woodwinds</td>
</tr>
<tr>
<td>MUSC 1912</td>
<td>Percussion</td>
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<tr>
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<td>Strings</td>
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<tr>
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</tr>
<tr>
<td>MUSC 2812</td>
<td>Woodwinds</td>
</tr>
<tr>
<td>MUSC 2912</td>
<td>Percussion</td>
</tr>
<tr>
<td>MUSC 3362</td>
<td>Strings</td>
</tr>
<tr>
<td>MUSC 3712</td>
<td>Brass</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
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<tr>
<td>--------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>MUSC 1611</td>
<td>French Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1621</td>
<td>German Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1631</td>
<td>Italian Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1641</td>
<td>English Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 3233</td>
<td>Counterpoint</td>
</tr>
<tr>
<td>MUSC 3632</td>
<td>Opera</td>
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<td>Vocal Pedagogy</td>
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<td>Voice</td>
</tr>
<tr>
<td>MUSC 2613</td>
<td>Voice</td>
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</tr>
<tr>
<td>MUSC 3233</td>
<td>Counterpoint</td>
</tr>
<tr>
<td>MUSC 3532</td>
<td>Accompanying</td>
</tr>
<tr>
<td>MUSC 4532</td>
<td>Piano Literature</td>
</tr>
<tr>
<td>MUSC 4533</td>
<td>Piano Pedagogy</td>
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<tr>
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<td>Piano</td>
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<tr>
<td>MUSC 2513</td>
<td>Piano</td>
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<td>Piano</td>
</tr>
<tr>
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<td>Piano</td>
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<td>MUSC Elective</td>
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<td>MUSC 2551</td>
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<td>MUSC 2561</td>
<td>Functional Piano IV</td>
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<td>MUSC 3233</td>
<td>Counterpoint</td>
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<tr>
<td>MUSC 4212</td>
<td>Studies in Instrumental Pedagogy</td>
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<tr>
<td>MUSC 4312</td>
<td>Studies in Instrumental Repertoire</td>
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<td>Woodwinds</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>MUSC 1611</td>
<td>French Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1621</td>
<td>German Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1631</td>
<td>Italian Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 1641</td>
<td>English Diction/Song Literature</td>
</tr>
<tr>
<td>MUSC 2411</td>
<td>String Instruments</td>
</tr>
<tr>
<td>MUSC 2421</td>
<td>Brass Instruments</td>
</tr>
<tr>
<td>MUSC 2472</td>
<td>Choral Literature and Techniques</td>
</tr>
<tr>
<td>MUSC 4562</td>
<td>Music in the Elementary School</td>
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**Applied Music: Take each course below twice:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1651</td>
<td>Voice</td>
<td></td>
</tr>
<tr>
<td>MUSC 2651</td>
<td>Voice</td>
<td></td>
</tr>
<tr>
<td>MUSC 3651</td>
<td>Voice</td>
<td></td>
</tr>
<tr>
<td>MUSC 4651</td>
<td>Voice</td>
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</tr>
</tbody>
</table>

**Professional Development**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUI 3003</td>
<td>Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CUI 3013</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4103</td>
<td>Instructional Planning and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4113</td>
<td>Instructional Methodology and Classroom Management</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4403</td>
<td>Student Teaching/Elementary I</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4813</td>
<td>Student Teaching Secondary - All Level</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours**

36

**EC-12 Teacher Certification - Instrumental Concentration**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1612</td>
<td>Voice Class</td>
<td>2</td>
</tr>
<tr>
<td>or MUSC 1622</td>
<td>Voice Class</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 2411</td>
<td>String Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2421</td>
<td>Brass Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2431</td>
<td>Woodwind Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2441</td>
<td>Percussion Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 3462</td>
<td>Instrumental Literature and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4562</td>
<td>Music in the Elementary School</td>
<td>2</td>
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</table>

**Applied Music: Select the appropriate course for your area of focus below and take each course twice:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1361</td>
<td>Strings</td>
<td>3</td>
</tr>
<tr>
<td>or MUSC 1711</td>
<td>Brass</td>
<td></td>
</tr>
<tr>
<td>or MUSC 1811</td>
<td>Woodwinds</td>
<td></td>
</tr>
<tr>
<td>or MUSC 1911</td>
<td>Percussion</td>
<td></td>
</tr>
<tr>
<td>MUSC 2361</td>
<td>Strings</td>
<td>3</td>
</tr>
<tr>
<td>or MUSC 2711</td>
<td>Brass</td>
<td></td>
</tr>
<tr>
<td>or MUSC 2811</td>
<td>Woodwinds</td>
<td></td>
</tr>
<tr>
<td>or MUSC 2911</td>
<td>Percussion</td>
<td></td>
</tr>
<tr>
<td>MUSC 3361</td>
<td>Strings</td>
<td>3</td>
</tr>
<tr>
<td>or MUSC 3711</td>
<td>Brass</td>
<td></td>
</tr>
<tr>
<td>or MUSC 3811</td>
<td>Woodwinds</td>
<td></td>
</tr>
<tr>
<td>or MUSC 3911</td>
<td>Percussion</td>
<td></td>
</tr>
<tr>
<td>MUSC 4361</td>
<td>Strings</td>
<td>3</td>
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</table>
### Music or MUSC 4711  
Brass  
or MUSC 4811  
Woodwinds  
or MUSC 4911  
Percussion  

#### Professional Development  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUIN 3003</td>
<td>Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 3013</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4103</td>
<td>Instructional Planning and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4113</td>
<td>Instructional Methodology and Classroom Management</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4403</td>
<td>Student Teaching/Elementary I</td>
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</tr>
<tr>
<td>CUIN 4813</td>
<td>Student Teaching Secondary - All Level</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours**: 36  

#### EC-12 Teacher Certification - Piano Concentration  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1612</td>
<td>Voice Class</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 2411</td>
<td>String Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2421</td>
<td>Brass Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2431</td>
<td>Woodwind Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2441</td>
<td>Percussion Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 3462</td>
<td>Instrumental Literature and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4562</td>
<td>Music in the Elementary School</td>
<td>2</td>
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**Applied Music: Take each course below**  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1531</td>
<td>Piano</td>
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</tr>
<tr>
<td>MUSC 2511</td>
<td>Piano</td>
<td></td>
</tr>
<tr>
<td>MUSC 3511</td>
<td>Piano</td>
<td></td>
</tr>
<tr>
<td>MUSC 4511</td>
<td>Piano</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CUIN 3003</td>
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<tr>
<td>CUIN 3013</td>
<td>Educational Psychology</td>
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<tr>
<td>CUIN 4103</td>
<td>Instructional Planning and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4113</td>
<td>Instructional Methodology and Classroom Management</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4403</td>
<td>Student Teaching/Elementary I</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4813</td>
<td>Student Teaching Secondary - All Level</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours**: 36  

1. All University Core Curriculum requirements are shown in the suggested degree program. See the University Core Curriculum section of this catalog for course options.  
2. Depending upon the chosen field, the minor requirements may exceed 18 SCH. Students must consult the department in which the minor field is chosen and must fulfill all SCH hours required for that minor.  
3. Consult with faculty advisor to ensure you select the appropriate course for your area of focus.  

### Admission Requirements and Regulations for Academic Progress for Music as a Minor Field  
Students who wish to minor in music must consult with a music faculty advisor for information before enrolling in music courses. In addition to meeting the general university core requirements and foreign language requirements, music minors must earn a minimum grade of “C” in each music course in the respective degree plan. **Students must also fulfill the following course requirements for the music minor:**  

#### Applied Music (2 hr. private lessons in voice, piano, woodwinds, strings, brass, percussion)  
4

Select one of the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1253</td>
<td>Musicianship I</td>
</tr>
<tr>
<td>&amp; MUSC 1263</td>
<td>and Musicianship II</td>
</tr>
<tr>
<td>MUSC 1233</td>
<td>Music Theory</td>
</tr>
<tr>
<td>&amp; MUSC 1243</td>
<td>and Music Theory</td>
</tr>
<tr>
<td>MUSC 2323</td>
<td>Music Literature</td>
</tr>
<tr>
<td>or MUSC 2333</td>
<td>Afro-American Music</td>
</tr>
</tbody>
</table>

#### Ensemble (Each ensemble course earns 1 SCH per semester)  
4

---
Since two credit hours of piano is required for all music minors, minors whose applied area is piano must choose an additional two semester credit hour music course in consultation with a faculty advisor.

Requirements for Drama as a Minor Field (Performance)

Students who wish to minor in drama must consult with the Department of Music and Theatre before enrolling in any theatre courses. All courses must be passed with a "C" or better.

Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Introduction to Acting</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 1103</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 1113</td>
<td>Introduction to Theatre Technology</td>
<td>3</td>
</tr>
<tr>
<td>DRAM 1111</td>
<td>Theatre Practicum</td>
<td>1</td>
</tr>
<tr>
<td>DRAM 1121</td>
<td>Theatre Practicum II</td>
<td>1</td>
</tr>
<tr>
<td>DRAM 2111</td>
<td>Theatre Practicum</td>
<td>1</td>
</tr>
<tr>
<td>DRAM 2121</td>
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<td>1</td>
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Electives

<table>
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<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>DRAM 1203</td>
<td>Stagecraft</td>
<td>3</td>
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<tr>
<td>or DRAM 2013</td>
<td>Intermediate Acting</td>
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<tr>
<td>DRAM 2223</td>
<td>African American Theatre II</td>
<td>3</td>
</tr>
<tr>
<td>or DRAM 3113</td>
<td>Contemporary Theatre</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 19

Music Organizations

1. **Kappa Kappa Psi Fraternity.** The national honorary band fraternity.
2. **Tau Beta Sigma.** The national honorary band sorority.
3. **Phi Mu Alpha Sinfonia.** A national honorary music fraternity for men.
4. **Sigma Alpha Iota.** A national honorary music fraternity for women.
5. **Texas Music Educators Association (Student Chapter).** The professional organization for music education majors.
6. **Music Advisory Student Council (MASC).** A council of student leaders from each of the Music organizations.

Music Ensembles

1. **University Concert Chorale.** A large vocal ensemble for qualified music and non-music majors that performs choral music of all styles and periods.
2. **PV Singers.** A select ensemble that performs vocal chamber works of all styles and historical periods.
3. **University Band: The Marching Storm.** An ensemble that performs at football games, parades, and other events.
4. **Wind Ensemble.** An ensemble for qualified music and non-music majors that performs traditional and contemporary Wind Band music.
5. **Brass Ensemble.** An ensemble that performs music written for brass instruments.
6. **Percussion Ensemble.** An ensemble that performs music written for percussion instruments.
7. **Chamber Orchestra.** An ensemble of wind, string, and percussion instruments that performs orchestral repertoire.
8. **Flute Ensemble.** An ensemble that performs chamber music for flutes.
9. **Jazz Ensemble.** An ensemble that performs jazz music.

Theatre Organizations

1. **Charles Gilpin Players.** The performance organization of the Theatre Program.
2. **Alpha Psi Omega.** Gilpins who are members of the PVAMU chapter of the national honor society in theatre.

Theatre Troupes

1. **Social Justice Troupe (CenterStage R.A.G.E.).** Raising Awareness & Gaining Equality, this ensemble develops and tours issue-based, socially-relevant performances using art as activism.
2. **Inspiring Faith (I.F.).** An ensemble that creates and tours shows with messages of hope and peace to inspire audiences to be proactive in bringing positivity to their lives and communities.
3. **Musicians Using Song In Character (M.U.S.I.C.).** An ensemble that performs standard and classic musical theatre numbers as well as new and original musical theatre works.
4. **Gilpins Improv Group (G.I.G.)**. An ensemble that specializes in performances and entertainment using theatrical improvisation techniques and audience interaction.

### Naval Reserve Officers Training Corps (NROTC)

#### Purpose and Goals

The Prairie View A&M University Naval ROTC Unit was established in March of 1968. The staff of the Naval Science Department consists of active duty Navy and Marine Corps personnel and civilian administrative assistants who are dedicated to producing officers of the highest quality for the Navy and Marine Corps.

Upon graduation, qualified Naval ROTC Midshipmen, Officer Candidates and Marines are commissioned as Ensigns in the United States Navy or Second Lieutenants in the United States Marine Corps. Depending on the community selected, midshipmen are obligated to serve a minimum of five years of active duty.

#### NROTC Programs

##### Four-Year Scholarship Program

Naval ROTC Midshipmen join the unit as recipients of various scholarships four-year National Scholarship, Minority Serving Institution Scholarship Reservation (formerly Historically Black College/University Scholarship), or Frederick C. Branch Scholarship or as college program candidates seeking a scholarship opportunity. Scholarship NROTC students are selected annually through nationwide competitive examinations, interviews, and review of high school records. Those selected for scholarships are appointed Midshipmen U.S. Naval Reserve and receive benefits which include tuition, instructional fees, uniforms, a book stipend ($750 per year), and a monthly stipend of $250-$400 for a maximum of 40 months (Current monthly stipend is $250 for freshman, $300 for sophomore, $350 for juniors, and $400 for seniors).

##### Two-Year Scholarship Program

Men and women who are junior college transfers are eligible to participate in the NROTC program if they are physically qualified and selected for training during their sophomore year. Each student selected will receive six weeks of Navy-oriented instruction and drill in lieu of the normally required freshman and sophomore naval science courses. Training occurs during the summer between the sophomore and junior years at the Naval Science Institute (NSI). Successful completion of the NSI course qualifies these students for enrollment in junior-year NROTC courses and for appointment as NROTC scholarship Midshipmen.

##### College Program

Students that do not meet the requirements for a four-year scholarship may voluntarily enter the NROTC Program and participate in all unit classes, laboratories, activities and events during their freshman and sophomore year. In order to continue in the program and receive a commission, these students must either be selected for a scholarship or meet the requirements to be selected as to Advanced Standing prior to the start of their junior year. Transfer to the scholarship program or Advanced Standing in the college program requires the student to meet Navy physical qualification standards and demonstrate leadership ability and high academic performance.

- Those selected for scholarship are appointed Midshipmen, United States Naval Reserve, and receive benefits during their remaining years of school which include tuition, instructional fees, uniforms, a book stipend ($750 per year), and a monthly stipend of $250-$400 for a maximum of 40 months.
- College program students receive uniforms and naval science textbooks upon entering the advanced phase of Naval Science as juniors; students receive a stipend of $350 per month ($400 per month as a senior) for a maximum of 20 months.

#### Naval Science Minor Program Requirements

Any student attending Prairie View A&M University can minor in Naval Science by completing the following academic requirements:

##### Minor Field Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVY 1013</td>
<td>Introduction to Naval Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 1023</td>
<td>Sea power and Maritime Affairs</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 2013</td>
<td>Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 3103</td>
<td>Evolution of Warfare</td>
<td>3</td>
</tr>
<tr>
<td>or NAVY 3023</td>
<td>Naval Ships Systems I</td>
<td></td>
</tr>
<tr>
<td>NAVY 4013</td>
<td>Naval Ships Systems II</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 4023</td>
<td>Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>
Note: Students must earn a minimum grade of a “C” in all classes taken in their major disciplines and a minimum grade of a “C” in all classes taken in their minor disciplines.

**Commissioning Program Requirements**

In order to receive a commission in either the United States Navy or United States Marine Corps a student must be accepted into a four year scholarship, two-year scholarship, or into Advanced Standing in the College Program.

**Commissioning Academic Requirements**

**Ensign, United States Navy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVY 1013</td>
<td>Introduction to Naval Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 1023</td>
<td>Sea power and Maritime Affairs</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 2013</td>
<td>Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 2023</td>
<td>Navigation and Naval Operations I</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 3013</td>
<td>Navigation and Naval Operations II</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 3023</td>
<td>Naval Ships Systems I</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 4013</td>
<td>Naval Ships Systems II</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 4023</td>
<td>Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select two of the following:</td>
<td>8</td>
</tr>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td></td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td></td>
</tr>
<tr>
<td>MATH 2043</td>
<td>Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 4173</td>
<td>Advanced Math for Engineers</td>
<td></td>
</tr>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td>6</td>
</tr>
<tr>
<td>PHYS 2523</td>
<td>University Physics II</td>
<td></td>
</tr>
<tr>
<td>AGRO 1703</td>
<td>Crop Science (This course is necessary)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>41</td>
</tr>
</tbody>
</table>

**Second Lieutenant, United States Marine Corps**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVY 1013</td>
<td>Introduction to Naval Sciences</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 1023</td>
<td>Sea power and Maritime Affairs</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 2013</td>
<td>Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 3103</td>
<td>Evolution of Warfare</td>
<td>3</td>
</tr>
<tr>
<td>NAVY 4023</td>
<td>Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: All Naval Science courses, for students pursuing a commission, include a mandatory two hour (0 SCH) Professional Development Leadership Laboratory.

**Commensurate Programs**

1. Naval Science students may select naval science courses as free electives or electives in their degree programs.

2. Naval Science students may substitute Introduction to Naval Science (NAVY 1013), Leadership and Management I (NAVY 2013), for up to two semester hours of the physical education activity requirement in the general education program.

3. NAVY 1023 (Sea Power) may be substituted for three of the University’s mandatory six history hours

NOTE: The NROTC Scholarship is a four-year scholarship requiring students to be commissioned within eight semesters. An additional 24 to 38 hours is required beyond the student’s normal degree requirements. Naval Science students must plan accordingly. All Naval Science students must take at a minimum 15 SCH per semester; 12 SCH major requirements and 3 SCH for Naval Science Courses. Dependent on credit hour requirements of the individual's major, Naval Science students may be required to complete 18 to 22 hours per semester in order to graduate on time.

**Naval Science Curriculum Sequence**

**Freshman**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall - Semester 1</td>
<td>NAVY 1013</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>NAVY 1023</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NAVY 1013</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>NAVY 1023</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3</td>
</tr>
</tbody>
</table>
Sophomore
Fall - Semester 1 | Hours Spring - Semester 2 | Hours
--- | --- | ---
NAVY 2013 | 3 NAVY 2023 | 3
MATH 1124 | 4 MATH 2024 | 4
Total | 7 Total | 7

Junior
Fall - Semester 1 | Hours Spring - Semester 2 | Hours
--- | --- | ---
NAVY 4013 or 3103 | 3 NAVY 3023 | 3
PHYS 2513 | 3 PHYS 2523 | 3
Total | 6 Total | 6

Senior
Fall - Semester 1 | Hours Spring - Semester 2 | Hours
--- | --- | ---
NAVY 3013 | 3 NAVY 4023 | 3
Total | 3 Total | 3

Total Hours: 38

Special Requirements

Scholarship students must complete the following specified college courses taught by civilian faculty as delineated below. College Program students are encouraged to complete the courses in order to improve potential selection for a scholarship.

<table>
<thead>
<tr>
<th>Title</th>
<th>Year Taken</th>
<th>Normally Required or Recommended</th>
<th>Minimum Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus (Differential and Integral) (two of the following courses): MATH 1124, MATH 2024, MATH 2034, MATH 2043, MATH 4173</td>
<td>Freshman-Sophomore</td>
<td>Required of all Navy Option Scholarship students by end of Sophomore year.</td>
<td>8 SCH</td>
</tr>
<tr>
<td>University Physics (Calculus-based): PHYS 2513 and PHYS 2523</td>
<td>Sophomore-Junior</td>
<td>Required of all Navy Option Scholarship students by end of Junior year.</td>
<td>6 SCH</td>
</tr>
</tbody>
</table>

1. All Navy drills, ceremonies, information briefings, seminars, and supplemental workshops scheduled during any semester are considered naval science course requirements. Students are required to participate in all unit activities scheduled.
2. KINE 1011 and KINE 1321 (intermediate swimming) is recommended for all Naval Science Students. Swimming at the level of a third class swimmer is required prior to the first midshipman summer cruise.
3. Qualification as a Mate A and Skipper B in the unit’s small boat sail program.
4. Development Opportunities. Through the NROTC program, Midshipmen may become members of the Drill Team, Color Guard, and Navy and Marine Corps professional societies. Midshipmen are encouraged to participate in all areas of university life, athletic, student government, and university committees.

Roy G. Perry College of Engineering

Purpose and Goals

The modern mission of the Roy G. Perry College of Engineering, in the new millennium, is to sustain an infrastructure that will attract and maintain a world-class faculty that produces graduates with the highest level of professional standards. These graduates will be prepared for a career of life-long learning that will result in leaders, productive workers, innovators and entrepreneurs who will positively impact the increasingly multi-disciplinary and diverse national economy. The College serves as a value added partner within the University to meet the challenge to excel in education and research in engineering, engineering technology, and computer science; and to service and relevance to regional, national, and global communities.

This mission is accomplished through the following six goals:

1. Strive for excellence in engineering education through the dissemination and interpretation of knowledge through the educational programs.
2. Recruit and retain students who have demonstrated a capacity to excel in an environment that integrates advanced information technology with creativity, critical thinking, and problem solving.
3. Recruit and retain a cadre of world-class faculty effective in every endeavor of student-faculty interaction and committed to maintaining an academic standard that will ensure the students are highly competitive for graduate or professional school or for employment in the private or public sectors.
4. Promote scholarly activities through the continual development of our research centers and other collaborations and further enhancing our incorporation of undergraduate and graduate research activities.

5. Continue strong external relations that cultivate and integrate our corporate and alumni constituents into partnerships with the College.

6. Maintain the appropriate infrastructure and support services necessary to provide an atmosphere conducive to learning.

Instructional Organization

The Roy G. Perry College of Engineering offers the following degree programs:

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Engineering</td>
<td>BS</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>BS</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>BS</td>
</tr>
<tr>
<td>Computer Information Systems</td>
<td>MS</td>
</tr>
<tr>
<td>Computer Science</td>
<td>BS, MS &amp; PhD</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>BS, MS &amp; PhD</td>
</tr>
<tr>
<td>Engineering</td>
<td>MS</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>BS</td>
</tr>
</tbody>
</table>

College Admission and Academic Requirements

High School Preparation for Admission to the Roy G. Perry College of Engineering

For students intending to pursue a major in engineering, the recommended curriculum is defined by the "Recommended Texas High School Program Graduation Requirements" and approved by the State Board of Education in November 1993. The listing below reflects the current State Board recommendation and expands upon the University requirements stated earlier in this catalog:

Suggested High School Course Work

In support of the aforementioned requirements, an additional year of advanced mathematics (e.g., Calculus) is recommended. Chemistry and Physics are foundations for all engineering programs, and are strongly recommended. Further, students planning careers in the health or biomedical engineering professions should take one year of biology. Additionally, students are urged to take advantage of advanced placement opportunities and honors programs.

Moreover, a student who enrolls without having completed the above courses will not be optimally prepared and the duration of the student's undergraduate program will likely be extended. In particular, the engineering programs offered by the college are based upon a student being fully prepared to begin study with Calculus and Chemistry for Engineers at the college level. Prerequisites for Calculus and Chemistry for Engineers are considered deficiencies and are not counted toward an engineering degree.

Admission to the Roy G. Perry College of Engineering

Admission to the Roy G. Perry College of Engineering is based on the University's undergraduate admission requirements plus the following additional admission criteria for the Roy G. Perry College of Engineering. A student is admitted directly into a major only if all admission criteria are met.

First-time Freshmen – Engineering and Computer Science Majors

First-time freshmen will be evaluated on the basis of the following admission criteria that are applicable for the student:

1. Students must meet the Prairie View A&M University admissions requirements.
2. Students must present a new SAT Reasoning Test score of 950 (based on combined verbal and math scores only) or higher or a composite ACT score of 18 or higher.
3. Must have a cumulative high school GPA of 3.0 on a 4.0 scale

Students Entering with Transfer Credit

Transfer students include those from other units within Prairie View A&M University as well as those from other educational institutions. Transfer students external to Prairie View A&M University must furnish an official transcript to the Office of Admissions for evaluation of all college level work completed. Transfer students with less than 30 hours of transferable credit are admitted under the criteria for first-time freshmen.

Transfer students with 30 hours or more of transferable credit must meet the following requirements:
1. Students must meet the Prairie View A&M University and the Roy G. Perry College of Engineering admissions requirements.
2. Must have a “C” or higher in all transfer courses.
3. Must have a minimum cumulative GPA of 2.5 on a 4.0 scale in all math, science, and engineering courses.

College Academic Requirements

Along with meeting the general requirements of the University, students enrolled in the Roy G. Perry College of Engineering must maintain the following performance levels in order to satisfy degree requirements:

1. Earn an overall grade point average of 2.0 or better in courses taken outside of the college and earn a grade of “C” or better in English, Mathematics, and Science courses.
2. Earn a grade of “C” or better in each course taken within the College.
3. Earn a grade of “C” or better in the prerequisite before advancing to the next level course in a sequence for English, Mathematics, and Science courses.
4. Earn a grade of “C” or better in prerequisite courses before advancing to the next level course in College courses.
5. Demonstrate professional standards and ethical conduct.
6. Three-Attempt Rule: A student may not attempt a course in Mathematics, Science, or Engineering in the Roy G. Perry College of Engineering at PVAMU more than three times and apply that course toward his/her degree. Enrollment in a course for a period of time sufficient for assignment of a grade, including a grade of “W”, is considered an attempt. After a student failed a course attempt twice by not receiving a grade of “C” or higher, he/she must obtain approval from the Department Head to enroll in the course for the 3rd time.

Students who transfer from other colleges and universities should meet the University’s scholastic regulations and additional core curriculum requirements for engineering.

Eligibility to Take Upper Division College Courses

The Roy G. Perry College of Engineering has an eligibility standard for the students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, Mathematics, Science, and Engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students must also complete a prescribed set of courses listed in the catalog section outlining specific degree programs and have a minimum Grade Point Average (GPA) of 2.5 to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. Students transferring to the Roy G. Perry College of Engineering with 60 or more semester hours from another institution will be allowed a period of one semester to comply.

University Core Curriculum For Engineering Programs

The core curriculum concept provides for portability of a basic element of a college degree between higher education institutions. However, certain programs have specific requirements in their programs that must be satisfied for the purpose of accreditation. For a specific program, the core curriculum may look different to most efficiently satisfy both the core and program-specific requirements. For ABET-accredited engineering programs, for example, the math requirement in the core curriculum is best satisfied if the engineering student takes Differential Equations. The program-specific core curriculum requirements presented for degree programs in the Roy G. Perry College of Engineering represent the suggested University Core Curriculum designed for an engineering student to minimize the coursework required.

Students who undertake a more general core curriculum may require additional coursework. For example, the Roy G. Perry College of Engineering requires a programming language course so that some 3-hour courses that satisfy the University Core Curriculum may not be acceptable for the Roy G. Perry College of Engineering degree programs.

Supporting Facilities

Center for Energy and Environmental Sustainability (CEES)

Center for Energy and Environmental Sustainability is established in 2010 with funding from National Science Foundation under the Center for Research Excellence in Science and Technology (CREST) program. The Center consists of a diverse team of faculty and research scientists from two colleges (Roy G. Perry College of Engineering and the Brailsford College of Arts & Sciences) and five departments (Chemical, Civil & Environmental, Mechanical and Electrical Engineering, and Chemistry & Physics). The goal of this center is to establish research and education focused on energy engineering. CEES will focus on innovative technical solutions in the energy arena and will engage PVAMU students on research questions that lead to science and technological breakthroughs needed to fill critical gaps in the future utilization of environmentally responsible and sustainable energy solutions. The three research themes of the center are Biofuels, wind energy and energy and environment. More information on the center is available at www.pvamu.edu/cees .

Chemical Engineering

The Chemical Engineering Department has research facilities available in several areas including bioengineering, materials, nuclear engineering, economic and environmental impact assessment. Bioengineering facilities include laboratories for biotechnology, bioprocess engineering and bioseparations studies. Materials facilities include equipment for measuring such properties as flash point, thermal expansivity and coefficient of friction,
Nuclear studies facilities include a laboratory for the detection and measurement of ionizing radiation of different types. Modeling and simulation tools enable the study and comparison of alternative chemical processing routes on the basis of performance cost and risk. Other facilities are available for studying transport processes in oil recovery and bioremediation operations, as well as in general purpose laboratories.

Civil & Environmental Engineering

The Civil and Environmental Engineering Department research facilities consist of several laboratories, namely the construction materials, environmental, geotechnical, hydraulics, transportation, geographic information systems (GIS), and computer information systems. These laboratories are used to enhance our undergraduate and graduate education as well as conduct research. These laboratories are renovated and equipped with the latest tools and equipment through funding from US Department of Education, Title III grant.

The Construction Materials laboratory is equipped with an Instron UTM machine which has the capability to perform tension, compression, bending, fatigue and other dynamic and cyclic loading tests. The lab is also equipped with new structural test frames that allow small scale educational beam bending and stress analysis. The laboratory also has equipment with testing capabilities for torsion and hardness. Several other material testing facilities are available in the college though other departments and research centers and are accessible to our graduate students. The Environmental Engineering laboratory is equipped with Gas chromatograph with Mass-spec and FID, High Performance Liquid chromatograph, Ion Chromatograph, total Organic Carbon Analyzer in addition to water and wastewater analysis tools and sedimentation, filtration, jar test and aerobic digestion apparatus to study various treatment methods. The Geotechnical Engineering lab has equipment with the capability to perform triaxial, consolidation, direct shear and unconfined compressive strength tests. Located in the Hydraulics Engineering Laboratory is state of the art equipment in fluid mechanics and hydraulic machinery including hydrostatic bench, open channel hydraulics, hydraulics bench with various fittings to study various phenomenon, a pump test rig, and a water hammer apparatus. The Transportation Engineering, GIS and computer information systems laboratory house over twenty-five (25) state of the art computers loaded with civil and environmental engineering software, transportation engineering, and other GIS tools. The department also houses a 48-node cluster which is set up to run air quality modeling software such as CAMx as well as Computational Fluid Dynamics simulations.

Computer Science

The Computer Science Department has a variety of computing facilities, including several MS Windows-based PC labs, MacOSX-based iMaclab, cybersecurity lab, distance learning and video conference laboratory, graduate student laboratory equipped with multiple operating systems, databases and other software. The department research facilities include a Graphics and 3-D Visualization laboratory, a networks laboratory, and a parallel cloud computing laboratory, a data-mining laboratory, and an RFID applications laboratory.

The Graphics and 3-D visualization laboratory consists of several 3-D visualization workstations with head-mounted displays and data gloves for developing tactile and motion sensing applications. The networks laboratory consists of several different types of network appliances including switches, VPN, routers, etc., using which students study the various network topographies and traffic patterns. The artificial intelligence laboratory has several neural network software modules and the data-mining laboratory has several database and data-mining software modules. The RFID laboratory has setups of several types of RFID readers and writers which enable students to configure the hardware and software for various real-time RFID application scenarios. Newly developed drone-based real-time data collection and processing project has been applied for forest fire alarming, animal disease data sharing and air quality monitoring.

Electrical and Computer Engineering

The Electrical and Computer Engineering Department has a wide range of facilities available to support graduate studies and research. The Department has the following laboratories available for research: Analog and Mixed Signal Lab, Wireless Communications Lab, Computer Networking Lab, Digital Systems Lab, VLSI Design Lab, Device Characterization Lab, the Sprint Broadband Telecommunications Lab, and the Texas Instruments DSP Solutions Lab.

The laboratories are equipped with state-of-art equipment and instruments. The pieces of equipment include: spectrum analyzers, logic analyzers, network analyzer, pattern generators, signal generators, NI Elvish, power supplies, oscilloscopes, function/arbitrary waveform generators, Xilinx FPGA development tools, semi-automatic probe station, Hewlett-Packard 4145 Parametric Analyzer System, Keithley System 83 Variable Temperature Probe Station with C-V & I-V Measurements, personal computers, workstations, plotters and printers.

Software packages available for academic instructions and research include: Matlab, Simulink, LabView, Pspice circuit simulator, NI MultiSim, Cadence tools for VLSI design, Synopsis device simulator, Opnet, COMSOL Multiphysics 3D simulator,

There are several centers of excellence in the university where students will have opportunities to work with the faculty on their research. The following are research centers within the EE Department:

- **The Center of Excellence for Communications Systems Technology Research (CECSTR)**. The Center’s mission is to establish a comprehensive research program with the capabilities of seeking an understanding of selected aspects of communication systems, DSP Solutions, Image Processing, Mixed Signal Systems, and High Speed (Broadband) Communication Systems by way of algorithm developments, modeling, simulation, analysis, design, testing, and performance evaluation. The Center’s laboratories are equipped with state-of-the-art equipment and instruments.
Purpose and Goals

The graduate Engineering programs are designed to enhance the student’s research capabilities and to make the student more competitive in the professional practice. They are the continuation of the intellectual, scholarly and professional development of the individual producing technological leaders and creative engineers and computer scientists devoted to the discovery, development, and refinement of knowledge and methodologies associated with the various engineering and computer disciplines. Each degree candidate is expected to have demonstrated the highest degree of professional ethics and standards. The College of Engineering provides excellent facilities in support of its graduate programs.

Admission to Programs

Master’s Programs

The following are university admission requirements to the master’s programs in the College of Engineering. Students will be awarded graduate degree status admission if they satisfy all the admission requirements.

1. Meet the requirements for admission to the graduate school.
2. Have an undergraduate degree from an ABET (or equivalent) accredited program.
3. Have a cumulative Grade Point Average (GPA) of 2.75 on a 4.00 scale.
4. Have previous educational background in the intended area of study.

Applicants who do not satisfy the above admission requirements may be awarded provisional graduate degree status with the minimum GPA of 2.50 on a 4.00 scale. An applicant with a bachelors degree who has acquired relevant experience that could contribute to ensuring their success in graduate study, may be considered for conditional admission upon a holistic review and recommendation by the respective department head and dean.

Conditional students must petition the Dean of Engineering for full status to the graduate program during the term in which the first 12 graduate semester credit hours will be completed. To be considered for full degree status provisional students must have earned a minimum GPA of 3.0 in all courses recommended by the faculty advisor and the head of the graduate program.

Students may be awarded non-degree admission status if they satisfy the requirements as outlined in the catalog section “Types of Admission” under Admissions Information and Requirements.
Doctoral Program
The following are admission requirements to the Doctor of Philosophy program in the Department of Electrical Engineering. The candidate should:

1. Hold a baccalaureate degree in engineering, mathematics or the physical sciences conferred by a regionally accredited institution.
2. Have a 2.75 Grade Point Average (GPA) on a four-point scale on all completed undergraduate course work.
3. Hold a Masters of Science degree in Electrical Engineering or one of the related disciplines, conferred by an accredited institution.
4. Have a 3.2 GPA on all completed graduate work.
5. Produce original transcripts for all academic work completed at the undergraduate and graduate levels.
6. Have GRE verbal and quantitative scores in the higher percentiles.
7. Submit three letters of recommendation. These should preferably come from faculty sufficiently acquainted with the student to comment on the student’s potential to successfully complete the doctoral program.
8. Submit a personal statement describing the applicant’s academic or professional accomplishments, research interest and professional goals.
9. International students, when deemed appropriate are required to take the Test of English as a Foreign Language (TOEFL); a score of 550, or higher, is required.

Master of Science in Engineering Degree Program
The Master of Science Degree in Engineering is a general engineering program with four areas of concentration:

- Chemical Engineering
- Civil Engineering
- Environmental Engineering
- Mechanical Engineering

Each area of concentration has an option of a thesis or non-thesis degree plan. Each option includes 12 semester credit hours of graduate courses in general engineering with the remaining hours to be determined by the student and his academic advisor during the first semester of acceptance to the graduate program as a degree status student.

During the first semester of graduate degree status, the student should select an advisory committee consisting of at least three members, two of whom must come from the engineering faculty, and the chairman of the committee who shall be a full member of the graduate faculty in engineering.

Degree Program Requirements

General Engineering Requirements
Select four of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNEG 5063</td>
<td>Engineering Analysis I</td>
</tr>
<tr>
<td>GNEG 5073</td>
<td>Engineering Analysis II</td>
</tr>
<tr>
<td>GNEG 5033</td>
<td>Engineering Probability and Statistics</td>
</tr>
<tr>
<td>GNEG 5133</td>
<td>Engineering Numerical Methods</td>
</tr>
<tr>
<td>GNEG 5193</td>
<td>Special Topics</td>
</tr>
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</table>

Option (Select one below)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis Option</td>
<td>GNEG 5086 Thesis</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Technical Electives (12 hours of graduate level courses identified based on concentration and in consultation with advisor)</td>
<td></td>
</tr>
<tr>
<td>Non-Thesis Option</td>
<td>GNEG 5203 Graduate Internship</td>
<td>2</td>
</tr>
<tr>
<td>or GNEG 5303</td>
<td>Graduate Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical Electives (15 hours of graduate level courses identified based on concentration and in consultation with advisor)</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 30

1 The student must consult his/her academic advisor and take at least two courses in GNEG 5063, GNEG 5073, GNEG 5033, and GNEG 5133.
2 Prior approval by the Degree Program Head is required for taking the Graduate Internship.
3 GNEG 5193 may be repeated when topic changes.
Combined BS/MS Programs in College of Engineering

The Roy G. Perry College of Engineering follows the University’s guideline of combined BS/MS programs to encourage qualified undergraduates to start graduate study before completing their BS degrees. By entering in a combined BS/MS status, a student is eligible to count up to 6 semester credit hours toward both the BS degree and the MS degree.

Admission to combined BS/MS programs

An undergraduate student who intends to enter a graduate program in the College of Engineering through the combined BS/MS program must apply through the College of Engineering Dean’s Office. An application form can be obtained in the Dean’s Office or on the homepage of the College of Engineering website.

Approval of the combined BS/MS programs will primarily be decided by the Program Head/Department Head of the intended graduate program. The following is a guide of allowable combinations between the BS and MS programs:

Allowable Combinations of BS/MS programs in College of Engineering

<table>
<thead>
<tr>
<th>BS Program/MS Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science/Computer Science</td>
</tr>
<tr>
<td>Computer Science/Computer Information Systems</td>
</tr>
<tr>
<td>Computer Engineering/Electrical Engineering</td>
</tr>
<tr>
<td>Electrical Engineering/Electrical Engineering</td>
</tr>
<tr>
<td>Chemical Engineering/Engineering</td>
</tr>
<tr>
<td>Civil Engineering/Engineering</td>
</tr>
<tr>
<td>Mechanical Engineering/Engineering</td>
</tr>
</tbody>
</table>

Requirements for Energy Engineering as a Minor Field

The Energy Engineering Minor curriculum is designed to prepare students to enter directly into a wide variety of careers in the energy sector serving the greater Houston area, state, national and international communities. Students of all majors are encouraged to enroll in the courses offered through the program. The curriculum is designed to work within the structure of the students’ majors.

The Center for Energy and Environmental Sustainability (CEES) is instrumental in developing the Energy Engineering Minor. The goal of this center is to establish research and education focused on energy engineering. The three research themes of the center are biofuels, wind energy and energy and environment. More information on the center is available at www.pvamu.edu/cees.

The Energy Engineering Minor has four focus areas:

• Chemical Engineering - Fossil Fuel and Nuclear Energy Focus
• Civil and Environmental Engineering - Energy and Environment Focus
• Electrical Engineering - Generation and Distribution Focus
• Mechanical Engineering – Renewable Energy Focus

Students shall complete the Energy Engineering Minor through satisfactory completion of 18 SCH from the following courses:

Energy Engineering Minor Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 3113</td>
<td>Introduction to Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>CVEG 4113</td>
<td>Energy and Environment</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3123</td>
<td>Renewable Energy and Energy Sustainability</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (select 9 hours from the following options):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 4103</td>
<td>Special Topics in Chemical Engineering ¹</td>
</tr>
<tr>
<td>CVEG 4103</td>
<td>Special Topics ²</td>
</tr>
<tr>
<td>ELEG 4013</td>
<td>Electromechanical Energy Conversion</td>
</tr>
<tr>
<td>ELEG 4023</td>
<td>Power Systems Engineering</td>
</tr>
<tr>
<td>ELEG 4223</td>
<td>Electronic and Photonic Materials and Devices</td>
</tr>
<tr>
<td>MCEG 4123</td>
<td>Energy System Design</td>
</tr>
<tr>
<td>MCEG 4163</td>
<td>Special Topics ³</td>
</tr>
</tbody>
</table>
Other energy related courses approved by the College

Total Hours 18

1. This course may be repeated when the topic varies. The approved topics for this minor include Intro to Nuclear, Biofuels and Biomass, and Fossil Fuels.
2. This course may be repeated when the topic varies. The approved topics for this minor include Nuclear Waste Management and Energy and Waste Management.
3. This course may be repeated when the topic varies. The approved topics for this minor include Heating, Ventilating and Air Conditioning and Power Plants.

Special Programs

Engineering Internship/Cooperative Education. The primary goal of an internship or cooperative education experience is to strengthen and enhance the theoretical knowledge gained through classroom or distance education-based experiences. The objectives of internships and cooperative education are to:

1. Provide students with opportunities to obtain professional industrial/government internships.
2. Prepare graduates for immediate professional assignments without further on-the-job training.
3. Provide a closer partnership between employers and the Roy G. Perry College of Engineering.
4. Help students determine which type of organizational structure and corporate culture best suits them.

Students in the program are required to enroll in internship or cooperative education courses while they are employed in industry/government. They continue to be governed by College and University regulations concerning professional conduct during the employment period. Students are normally paid wages/salaries by the employing agency.

The Roy G. Perry College of Engineering Enhancement Institute (CE2I) is an innovative and intensive summer bridge-to-college program designed to prepare students for the rigors of an Engineering, Computer Science, or Technology Curriculum and to aid with the transition between high school and college. The Institute is a five-week residential program, where participants will complete coursework in Math, Science, Technology, and Professional Development Activities. The Institute is math intensive. A math assessment test will be administered initially to determine the appropriate math placement. The program goal is to achieve a mastery of one math level higher than the student placed when he/she entered the program. The program will also introduce students to basic concepts in chemistry, physics, and computing. Students will experience professional development activities including field trips to area engineering and technology industries; personal and professional development seminars and workshops (i.e. time management, study skills, learning style inventories, effective use of study groups and seven (7) habits of successful people).

College Professional and Honor Societies

Among the honor societies designed to support, augment, and supplement the educational and professional development of students are the departmental honor societies and Tau Beta Pi, National Engineering Honor Society, through the Texas Kappa Chapter. In addition, the Roy G. Perry College of Engineering sponsors the following chapters of national societies:

The Society of Women Engineers. Prairie View A&M Student Chapter is a professional society open for membership to female students majoring in an engineering curriculum at the University. The Chapter is affiliated with the national professional engineering body, the Society of Women Engineers. The society fosters the intellectual, professional, personal and social development of student members.

The Society of Hispanic Professional Engineers (SHPE) is a professional society open to all engineering students in the Roy G. Perry College of Engineering. The student chapter at Prairie View is affiliated with the National Society of Hispanic Engineers professional society. The society endeavors to change lives by empowering the Hispanic community to realize their fullest potential and impact through STEM awareness, access, support and development.

The Prairie View A&M chapter of the National Society of Black Engineers is a professional society open to all engineering students in the Roy G. Perry College of Engineering. The chapter fosters intellectual and professional development among its members and promotes growth and entry of more minority persons into the engineering profession.


Chemical Engineering

Purpose and Goals

Chemical Engineering is unique in the engineering profession in that it requires a strong foundation in chemical principles, as well as in the physical and engineering sciences common to all branches of engineering. An education in Chemical Engineering is one of the broadest—the chemical engineer may find employment in all phases of technical operations. Chemical process industries supply society with a vast array of products, including chemicals, fuels, plastics, metals, foods, pharmaceuticals, textiles, and cryogenic materials. In recent years, Chemical Engineers have found employment in the microelectronics industry and in the advanced materials, biochemical and biomedical engineering fields. Chemical Engineers also serve society by reducing and eliminating pollution.

The primary goal of the department is to prepare engineers who are well qualified to design and operate chemical processes. The goals of the department include the fostering of professional ethics, standards, and practices; the development of conceptual and analytical skills in problem solving; and the development of the student’s perception and creative faculties. More specifically, the department has the following objectives, which are to:

1. Achieve success in advanced studies if they so choose, and in pursuing a design a successful professional career in new and emerging areas, as well as traditional chemical engineering areas;
2. Attain leadership roles in professional careers in field of choice, with high levels of competence, ethics and safety consciousness;
3. Maintain and raise their level of engineering competence and achievement by engaging in lifelong learning.

Admission Requirements

Table 1. First-time Freshmen Requirements for Direct Admission to the Chemical Engineering Program

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>High School GPA</th>
<th>SAT/ACT</th>
<th>High School Rank</th>
<th>THEA Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Engineering</td>
<td>Yes</td>
<td>3.00</td>
<td></td>
<td>New SAT: 950/18</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Transfer Students Requirements for Direct Admission to the Chemical Engineering Program

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>Transfer Grades</th>
<th>Transfer GPA (Math; Science and Engineering)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Engineering</td>
<td>Yes</td>
<td>“C” or greater</td>
<td>2.50</td>
</tr>
</tbody>
</table>

These tables represent a summary of admission requirements. For more detailed requirements see the section in the catalog pertaining to the Roy G. Perry College of Engineering Admission.

Accreditation Status

The Chemical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Bachelor of Science in Chemical Engineering Degree Program Requirements

Core Curriculum

All core curriculum requirements are shown in the suggested degree program for majors in chemical engineering.

College Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 1011</td>
<td>Intro Engr, Comp Sci &amp; Tech</td>
<td>1</td>
</tr>
<tr>
<td>CHEG 1021</td>
<td>Intro CHEG Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEG 2043</td>
<td>Chemical Engineering Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>CHEG/CVEG/ELEG/MCEG 4472</td>
<td>Senior Design and Professionalism - I</td>
<td>2</td>
</tr>
<tr>
<td>CHEG/CVEG/ELEG/MCEG 4482</td>
<td>Senior Design and Professionalism - II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1034</td>
<td>Chemistry for Engineers</td>
<td>4</td>
</tr>
<tr>
<td>CVEG 2454</td>
<td>Statics and Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>ELEG 2053</td>
<td>Introduction to Electrical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Engineering Lab II for Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>GNEG 2021</td>
<td>Engr Lab III for Math</td>
<td>1</td>
</tr>
<tr>
<td>GNEG 3051</td>
<td>Professional Engineering</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3023</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Hours</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>MATH 4173</td>
<td>Advanced Math for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2521</td>
<td>University Physics Lab II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 2013</td>
<td>Materials Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 2053</td>
<td>Material and Energy Balances</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3013</td>
<td>Heat, Mass, and Momentum Transport</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3023</td>
<td>Unit Operations</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3043</td>
<td>Equilibrium Stage Separation Processes</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3053</td>
<td>Chemical Engineering Thermodynamics II</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3063</td>
<td>Chemical Reaction Kinetics and Reactor Design</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4011</td>
<td>Chemical Engineering Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>CHEG 4031</td>
<td>Chemical Engineering Laboratory III</td>
<td>1</td>
</tr>
<tr>
<td>CHEG 4033</td>
<td>Process Dynamics and Control</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4043</td>
<td>Chemical Process Design and Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Support Area Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2033</td>
<td>General Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2043</td>
<td>General Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3413</td>
<td>Physical Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration**

Total Hours: 131

**Chemical Engineering Concentration**

3-Hour Advanced Chemistry Elective (select 3 hours from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2012</td>
<td>Quantitative Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2112</td>
<td>Quantitative Analysis Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 3423</td>
<td>Physical Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 4023</td>
<td>Forensic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 4033</td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 4053</td>
<td>Instrumental Analysis</td>
<td></td>
</tr>
<tr>
<td>CHEM 4063</td>
<td>Inorganic Chemistry</td>
<td></td>
</tr>
</tbody>
</table>

Or Another Course Approved by the Department

2-Hour Chemistry Lab Elective (select from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2032</td>
<td>General Organic Chemistry Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 2042</td>
<td>General Organic Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td>CHEM 3422</td>
<td>Physical Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 3432</td>
<td>Physical Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 4032</td>
<td>Forensic Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 4042</td>
<td>Biochemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 4052</td>
<td>Instrumental Analysis Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

Technical Electives $^2$

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 3113</td>
<td>Introduction to Energy Systems</td>
<td>6</td>
</tr>
<tr>
<td>CHEG 3153</td>
<td>Introduction to Biotechnology</td>
<td></td>
</tr>
<tr>
<td>CHEG 4103</td>
<td>Special Topics in Chemical Engineering</td>
<td></td>
</tr>
<tr>
<td>CHEG 4133</td>
<td>Process Modeling and Simulation</td>
<td></td>
</tr>
<tr>
<td>CHEG 4153</td>
<td>Bioengineering</td>
<td></td>
</tr>
<tr>
<td>CHEG 4163</td>
<td>Engineering Optimization</td>
<td></td>
</tr>
<tr>
<td>CHEG 4183</td>
<td>Design of Process Engineering Systems</td>
<td></td>
</tr>
<tr>
<td>MCEG 4093</td>
<td>Finite Element Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>MCEG 4123</td>
<td>Energy System Design</td>
<td></td>
</tr>
<tr>
<td>CHEM 4033</td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 4053</td>
<td>Instrumental Analysis</td>
<td></td>
</tr>
</tbody>
</table>
### Chemical Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 4063</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>ELEG 3033</td>
<td>Physical Principles of Solid State Devices</td>
</tr>
<tr>
<td>MATH 3073</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 4083</td>
<td>Advanced Calculus I</td>
</tr>
<tr>
<td>MATH 4223</td>
<td>Introduction to Complex Analysis</td>
</tr>
<tr>
<td>PHYS 3183</td>
<td>Modern Physics I</td>
</tr>
</tbody>
</table>

Total Hours 11

#### Bioengineering Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 4033</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 4042</td>
<td>Biochemistry Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Technical Electives (select 6 hours from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 3153</td>
<td>Introduction to Biotechnology</td>
</tr>
<tr>
<td>CHEG 4153</td>
<td>Bioengineering</td>
</tr>
<tr>
<td>CHEG 4103</td>
<td>Special Topics in Chemical Engineering</td>
</tr>
</tbody>
</table>

Total Hours 11

---

1. All students in the Bioengineering concentration must complete a project that is Bioengineering related.
2. Technical electives must be 3000 level or higher. 3 hours may be in math, science or engineering. The other 3 hours must be in engineering. Internship and co-op courses are not suitable as technical electives.

### Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan Option (see Roy G. Perry College of Engineering Other Programs section), apply up to six semester-credit hours of graduate courses toward technical electives requirements.

### Eligibility to Take Upper Division College Courses

The Roy G. Perry College of Engineering requires an eligibility standard for the students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, Mathematics, Science, and Engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students in the Chemical Engineering Program must complete a prescribed list of courses in the following with a minimum Grade Point Average (GPA) of a 2.5 to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. Students transferring to the Roy G. Perry College of Engineering with 60 or more semester hours from another institution will be allowed a period of one semester to comply. The following is a list of courses that must be completed prior to enrolling in upper division courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1034</td>
<td>Chemistry for Engineers</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1143</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEG 1011</td>
<td>Intro Engr, Comp Sci &amp; Tech</td>
<td>1</td>
</tr>
<tr>
<td>CHEG 1021</td>
<td>Intro CHEG Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 1043</td>
<td>Computer Applications in Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

### Requirements for Chemical Engineering as a Minor Field

Students must complete 27 semester credit hours as listed below to satisfy the requirements for a minor in the discipline of chemical engineering.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEG 2013</td>
<td>Materials Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 2043</td>
<td>Chemical Engineering Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 2053</td>
<td>Material and Energy Balances 1</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3013</td>
<td>Heat, Mass, and Momentum Transport 1</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3023</td>
<td>Unit Operations</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3043</td>
<td>Equilibrium Stage Separation Processes 1</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3053</td>
<td>Chemical Engineering Thermodynamics II 1</td>
<td>3</td>
</tr>
</tbody>
</table>
Professional and Honor Societies

Student organizations play an important role in helping students to adjust to the responsibilities of their profession and in recognizing high academic achievement. Students are encouraged to become active members of the organizations sponsored by the department. The department sponsors the following organizations:

American Institute of Chemical Engineers (A.I.Ch.E.) - Student Chapter. This chapter is a part of the national American Institute of Chemical Engineers organization, which is the premier professional society for chemical engineers nationwide. AIChE is the life-long home of chemical engineers nationwide. The student chapter promotes professionalism, professional development, and service to society.

Iota Beta Chapter of Omega Chi Epsilon. This is a chapter of the National Honorary Society Omega Chi Epsilon. The objectives of this organization are to promote and recognize chemical engineering academic excellence, graduate research, professionalism, sociability, character, and leadership among the chemical engineering students.

American Chemical Society (A.C.S.) - Student Chapter. This chapter is a part of the national professional society for chemists and chemical engineers, and is sponsored in cooperation with the Department of Chemistry.

American Nuclear Society PV Chapter (ANS-PV) – Student Chapter. The objectives of this organization are to promote the diverse field of nuclear science and technology, increase awareness and understanding of its diverse application in modern engineering, and to introduce students to the emergent career opportunities in nuclear engineering nationally and internationally. The student chapter is supported by the nuclear engineering program within chemical engineering department. Membership is open to all who are motivated to be enlightened in the growing field of the nuclear science and technology.

Society of Petroleum Engineers (S.P.E.) - Student Chapter. This chapter is a part of the national Society of Petroleum Engineers organization. The SPE is an international technical/professional organization dedicated to the advancement of technology associated with oil and gas exploration, production, refining, and processing. Student membership provides students the opportunity to meet practicing professionals and active members in the industry while still attending school.

National Organization of Black Chemists and Chemical Engineers (N.O.B.C.Ch.E) - Student Chapter. This chapter is part of the national NOBCChE organization. Its goals are to promote professionalism and advance technical careers for African Americans, with chemistry and chemical engineers as a particular focus. Membership is open to all who share these objectives. This chapter is co-sponsored with the Department of Chemistry.

Students of chemical engineering are also eligible for membership in the other professional and honor societies of the college and the university.

Civil and Environmental Engineering

Purpose and Goals

Civil Engineers are involved in the planning, design, construction, and operation of facilities essential to modern life. These built systems include: airports, water supply systems, bridges and roadways, water treatment plants, dams and reservoirs, space and aircraft structures, and power supply structures, to name a few. The mission of the Civil and Environmental Engineering Department is to produce Civil Engineers who will become innovative practitioners, leaders, researchers and entrepreneurs. The department attracts and retains high quality faculty and maintains state-of-the-art infrastructure to achieve excellence in teaching, research and service. The department, through its rigorous curriculum, hands-on laboratory experiences and design-oriented course projects, trains students in a broad range of civil engineering topics and engages them in research and service activities, so that they can make significant contributions to society and in improving the quality of life.

The Department of Civil and Environmental Engineering, a component of the Roy G. Perry College of Engineering, subscribes to and supports the goals of the College and the University. One objective of the program is to produce civil engineers for leadership in the profession. As such, a primary focus of the department is excellence in civil engineering education with the ultimate goal of promoting graduate research, excellence in civil engineering practice, and professional registration in civil engineering. The Civil Engineering Program Educational Objectives (PEOs) are provided below.

Civil Engineering program graduates will:

1. Have careers in civil engineering or related fields that lead to increasing levels of responsibility and leadership;
2. Obtain professional licensure/certification;
3. Complete graduate studies in civil engineering or related fields;
4. Engage in professional development and service.

Admission Requirements

**Table 1. First-time Freshmen Requirements for Admission to the Civil Engineering Program**

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>High School GPA</th>
<th>SAT/ACT</th>
<th>High School Rank</th>
<th>THEA Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Engineering</td>
<td>Yes</td>
<td>3.00</td>
<td>New Sat: 950/18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Transfer Students Requirements for Admission to the Civil Engineering Program**

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>Transfer Grades</th>
<th>Transfer GPA (Math; Science and Engineering)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Engineering</td>
<td>Yes</td>
<td>&quot;C&quot; or greater</td>
<td>2.50</td>
</tr>
</tbody>
</table>

These tables represent a summary of admission requirements. For detailed admission requirements, see the section in the catalog pertaining to the Roy G. Perry College of Engineering under College Admission and Academic Requirements.

Accreditation Status

The Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Bachelor of Science in Civil Engineering Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>College Requirements</strong></td>
</tr>
<tr>
<td>MATH 1124</td>
</tr>
<tr>
<td>MATH 2024</td>
</tr>
<tr>
<td>CHEM 1021 &amp; CHEM 1034</td>
</tr>
<tr>
<td>MATH 4173</td>
</tr>
<tr>
<td>MATH 3023</td>
</tr>
<tr>
<td>PHYS 2511 &amp; PHYS 2521</td>
</tr>
<tr>
<td>CVEG 1011 &amp; CVEG 1021</td>
</tr>
<tr>
<td>GNEG 1121 &amp; GNEG 2021</td>
</tr>
<tr>
<td>CVEG 2043</td>
</tr>
<tr>
<td>ELEG 2053</td>
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<tr>
<td>MCEG 2013</td>
</tr>
<tr>
<td>CVEG 3051</td>
</tr>
<tr>
<td>CVEG 4472 &amp; CVEG 4482</td>
</tr>
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<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVEG 2001</td>
</tr>
<tr>
<td>CVEG 2061</td>
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<tr>
<td>CVEG 2063</td>
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<td>CVEG 2081</td>
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<td>CVEG 3023</td>
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<tr>
<td>CVEG 3031</td>
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<tr>
<td>CVEG 3043</td>
</tr>
<tr>
<td>CVEG 3053</td>
</tr>
<tr>
<td>CVEG 3063</td>
</tr>
<tr>
<td>CVEG 3073</td>
</tr>
<tr>
<td>CVEG 3083</td>
</tr>
<tr>
<td>CVEG 4013</td>
</tr>
</tbody>
</table>
CVEG 4021  Geotechnical Engineering Design Laboratory 1
CVEG 4043  Environmental Engineering Design 3
CVEG 4053  Transportation Engineering Design 3
CVEG 4063  Water Resources Engineering 3
CVEG 4072  Systems Engineering and Uncertainty 2
CVEG 4141  Engineering Management and Ethics 1

Science Elective (Select one from the list below): 3
  BIOL 1073  General Microbiology
  BIOL 1113  College Biology I
  BIOL 1123  College Biology II

Technical Electives (CVEG or Other) 3

Total Hours 128

1 All Civil Engineering Core Curriculum requirements are shown in the suggested degree program.

Civil Engineering Suggested Technical Electives
CVEG 4093  Systems Engineering 3
CVEG 4103  Special Topics 3
CVEG 4113  Energy and Environment 3
CVEG 4123  Hydrology 3
CVEG 4143  Engineering Construction 3
CVEG 4223  Waste Management 3
CVEG 4233  Water Quality Modeling 3
CVEG 4243  Fundamentals of Air Pollution and Control 3
MATH 4063  Numerical Analysis 3
MATH 4083  Advanced Calculus I 3
MATH 4223  Introduction to Complex Analysis 3
MCEG 4063  Dynamic Systems and Controls 3
ARCH 4443  CAD Construction Documents and Codes 3

Technical elective courses must be 3000 level or above and must be taken with the approval of the Academic Advisor and the Department Head. Internship and Co-op courses are not acceptable as technical electives.

Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon acceptance into the Five-Year BS/MS Degree Plan Option (see Roy G. Perry College of Engineering Academic Programs and Degree Plans), apply up to six semester-credit hours of graduate courses toward technical electives requirements.

Eligibility To Take Upper Division College Courses

The Roy G. Perry College of Engineering applies an eligibility standard for students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, mathematics, science, and engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students in the Civil Engineering Program must complete the prescribed courses listed below with a minimum Grade Point Average (GPA) of 2.5 in order to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. Students transferring to the Roy G. Perry College of Engineering with 60 or more semester hours from another institution will be allowed a period of one semester to comply. The following list of courses must be completed prior to enrolling in upper division courses:

CVEG 1011  Intro Engineering & Comp Sci 1
CVEG 1021  Introduction to Civil Engineering Lab 1
CHEM 1034  Chemistry for Engineers 4
CHEM 1021  Inorganic Chemistry Laboratory II 1
ENGL 1143  Technical Writing 3
PHYS 2513  University Physics I 3
PHYS 2511  University Physics Lab I 1
MATH 1124  Calculus with Analytic Geometry I 4
Student organizations play an important role in helping students adjust to the responsibilities and professional development requirements of their profession. Students are encouraged to become active members of the organizations sponsored by the Civil and Environmental Engineering department.

The American Society of Civil Engineers (ASCE) - Prairie View A&M University (PVAMU’s) ASCE student chapter strives to promote the professional development of civil engineering students through professional development activities. The most notable of these activities is the annual ASCE Texas Regional Conference, in which students from several Texas and New Mexico universities compete in various team-oriented and individual competitions [for example, Concrete Canoe (including the design, presentation and canoe races), Steel Bridge (including design, fabrication and presentation), and the Daniel Mead paper].

The Civil Engineering Honors Club (CEHC) – CEHC’s objectives are to promote scholarship, professionalism, sociability, character, and leadership among Civil Engineering students. Members of the Honors Club are inducted into Texas A&M University’s Chi Epsilon Chapter, which is under the auspices of the National Civil Engineering Honor Society.

Students in the department are also eligible for membership in professional and honor societies approved by the Roy G. Perry College of Engineering and the university.

Requirements for Civil Engineering as a Minor Field

Students have two options for the Civil Engineering Minor. Option 1: Civil Engineering and Option 2: Environmental Engineering. Students can use a maximum of 9 hours from their major towards the minor requirements.

Option 1: Civil Engineering Minor

Students must complete 18 SCH to satisfy the minor requirements.

Required Courses
- CVEG 2043 Engineering Mechanics I 3
- CVEG 2063 Mechanics of Materials 3
- CVEG 3063 Hydraulics 3

Technical Electives
- Approved 3000 and 4000 level CVEG courses 9

Total Hours 18

Option 2: Environmental Engineering Minor

Students must complete 18 SCH to satisfy the minor requirements.

Required Courses
- CVEG 3043 Environmental Engineering 3
- MCEG 2013 Thermodynamics I 3
- or CHEG 2043 Chemical Engineering Thermodynamics I
- CVEG 4043 Environmental Engineering Design 3

Technical Electives
- CVEG 4223 Waste Management 3
- CVEG 4233 Water Quality Modeling 3
- CVEG 4243 Fundamentals of Air Pollution and Control 3
- or other related electives with the approval of the Academic Advisor

Total Hours 18

Computer Science

Department Mission

The mission of the Department of Computer Science consists of three interrelated components: (1) providing the highest quality instruction to the students; (2) conducting leading-edge research in computer science and engineering; and (3) providing leadership and service to our professional
communities. Computer Science's faculty and staff are committed to excellence and updating the program to meet the present and future needs of industry and the society.

**Purpose and Goals**

The Bachelor of Science in Computer Science Program is designed to:

1. Provide a high quality degree program in computer science that will prepare students for lifelong learning as they pursue professional careers in computer science and leadership roles in the society in which they serve.
2. Provide our students with a strong foundation, state-of-the-art techniques, methodologies, and tools to specify, design and develop computer-based solutions to complex systems problems.
3. Provide opportunities for faculty and students to contribute to the body of knowledge that serves the profession, by engaging in research, scholarly and other activities which support their interests and are in agreement with the goals and objectives of the College, and the University.
4. Prepare our students to communicate well, both orally and in writing, on moral and ethical development, in knowledge of the liberal arts, and on commitment to services to others.

**Admission Requirements**

Table 1. First-time Freshmen Requirements for Direct Admission to the Computer Science Program

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>High School GPA</th>
<th>SAT/ACT</th>
<th>High School Rank</th>
<th>THEA Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>Yes</td>
<td>3.00</td>
<td>New SAT: 950/18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Transfer Students Requirements for Direct Admission to the Computer Science Program

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>Transfer Grades</th>
<th>Transfer GPA (Math; Science and Engineering)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>Yes</td>
<td>&quot;C&quot; or greater</td>
<td>2.50</td>
</tr>
</tbody>
</table>

These tables represent a summary of admission requirements. For more detailed requirements see the section in the catalog pertaining to the Roy G. Perry College of Engineering Admission.

**Accreditation Status**


**Bachelor of Science in Computer Science Degree Program Requirements**

**Core Curriculum**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Engineering Lab II for Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>&amp; GNEG 2021</td>
<td>and Engr Lab III for Math</td>
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</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 1011</td>
<td>Intro to Basic Engr &amp; Comp Sci</td>
<td>1</td>
</tr>
<tr>
<td>COMP 1021</td>
<td>Introduction to Computer Science Lab</td>
<td>1</td>
</tr>
<tr>
<td>COMP 1211</td>
<td>Computer Science Lab I</td>
<td>1</td>
</tr>
<tr>
<td>COMP 1221</td>
<td>Computer Science Lab II</td>
<td>1</td>
</tr>
<tr>
<td>COMP 1223</td>
<td>Computer Science II</td>
<td>3</td>
</tr>
<tr>
<td>COMP 2013</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>COMP 2043</td>
<td>Digital Logic Circuits</td>
<td>3</td>
</tr>
<tr>
<td>COMP 2103</td>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3043</td>
<td>Computer Organization</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3053</td>
<td>Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3063</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3223</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3953</td>
<td>Database Management</td>
<td>3</td>
</tr>
<tr>
<td>COMP 4001</td>
<td>Ethics and Social Issues in Computing</td>
<td>1</td>
</tr>
</tbody>
</table>
### Computer Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMP 4072</td>
<td>Senior Design Project I</td>
<td>2</td>
</tr>
<tr>
<td>COMP 4082</td>
<td>Senior Design Project II</td>
<td>2</td>
</tr>
<tr>
<td>COMP 4113</td>
<td>Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>COMP 4123</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>COMP 4143</td>
<td>Introduction to Parallel Computing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 4233</td>
<td>Network Security</td>
<td>3</td>
</tr>
</tbody>
</table>

### Computer Science Lower Level Electives

6

### Computer Science Upper Level Electives

6

### Natural Sciences Area Requirements

Select one of the following sequences:

#### Science Sequence 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1033</td>
<td>General Inorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 1011</td>
<td>and Inorganic Chemistry Laboratory I</td>
<td></td>
</tr>
<tr>
<td>CHEM 1043</td>
<td>General Inorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 1021</td>
<td>and Inorganic Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2511</td>
<td>and University Physics Lab I</td>
<td></td>
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</table>

#### Science Sequence 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 1033</td>
<td>General Inorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 1011</td>
<td>and Inorganic Chemistry Laboratory I</td>
<td></td>
</tr>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2511</td>
<td>and University Physics Lab I</td>
<td></td>
</tr>
<tr>
<td>PHYS 2523</td>
<td>University Physics II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2521</td>
<td>and University Physics Lab II</td>
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</table>

#### Science Sequence 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1113</td>
<td>College Biology I</td>
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<tr>
<td>&amp; BIOL 1111</td>
<td>and College Biology Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2511</td>
<td>and University Physics Lab I</td>
<td></td>
</tr>
<tr>
<td>PHYS 2523</td>
<td>University Physics II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2521</td>
<td>and University Physics Lab II</td>
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</table>

### Math Area Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3023</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3073</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 121

---

1. All Computer Science Core Curriculum requirements are shown in the suggested degree program. All Computer Science majors must take ENGL 1123, ENGL 1143, COMP 1213, MATH 1124, PHYS 2513, CHEM 1033 or BIOL 1113 (Please refer to the Science Sequence option in the Natural Science Area requirements section), as part of the University Core Curriculum. Also, please note that 3 hours of MATH 1124 counts toward the core curriculum and 1 hour counts toward the college requirements.

2. Students are required to take all courses in Sequence 1, or Sequence 2, or Sequence 3. The students meet the 12 hours Science requirement by taking 6 hours from the core curriculum and the remaining 6 hours from the Science Sequences. Please note that one 3 hour course and 3 - 1 hour lab courses will count in the 6 hours not included in the core curriculum.

### Computer Science Suggested Electives

#### Lower Level Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 2003</td>
<td>Introduction to Web Design and Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>COMP 2023</td>
<td>Applications Development using C#</td>
<td>3</td>
</tr>
<tr>
<td>COMP 2133</td>
<td>Introduction to Information Security</td>
<td>3</td>
</tr>
<tr>
<td>COMP 2143</td>
<td>Introduction to Java</td>
<td>3</td>
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</tbody>
</table>

#### Upper Level Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 3113</td>
<td>Object-Oriented Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3203</td>
<td>System Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3213</td>
<td>Graphics and Visual Computing</td>
<td>3</td>
</tr>
</tbody>
</table>
COMP 3333  Smart Device App Development 3
COMP 4063  Artificial Intelligence 3
COMP 4073  Special Topics 3
COMP 4153  Data Mining and Analytics 3
COMP 4243  Advanced Application Development 3
COMP 4843  Human-Computer Interaction 3
COMP 4963  Introduction to Service Computing 3
COMP 4993  Independent Study 1-3

Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan Option (see Roy G. Perry College of Engineering Academic Programs and Degree Plans), apply up to six semester-credit hours of graduate courses toward technical electives requirements.

Eligibility to Take Upper Division College Courses

The Roy G. Perry College of Engineering requires an eligibility standard for the students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, mathematics, science, and engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students in Computer Science Program must get a “C” or better in each of the Math, Science, English, and Computer Science courses to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. Students transferring to the Roy G. Perry College of Engineering with 60 or more semester hours from another institution will be allowed a period of one semester to comply.

Requirements for Computer Science as a Minor Field

COMP 1211  Computer Science Lab I 1
COMP 1213  Computer Science I 3
COMP 1221  Computer Science Lab II 1
COMP 1223  Computer Science II 3
COMP 2013  Data Structures 3
COMP 2103  Discrete Structures 3
Three Upper-Division Computer Science Courses 9
MATH 1124  Calculus with Analytic Geometry I 4
MATH 2024  Calculus with Analytic Geometry II 4
Total Hours 31

Purpose and Goals

The Master’s degree programs prepare graduate students for positions in industry and research. Master’s degree graduates are also provided with a foundation for continuing their study at the doctoral level in Computer Science or Computer Information Systems.

The major objectives of the programs are to:

1. Address the critical shortage of professionals in Computer Science and Information Technology in Texas and the nation;
2. Provide an avenue for computer professionals in industry to upgrade their professional skills; and
3. Prepare graduates to pursue the terminal degree in Computer Science and Computer Information Systems.

Special Student Admission

Applicants who wish to take graduate courses but who do not meet the minimum GPA for admission as degree, provisional, or non-degree status may apply for special student status admission to the University in order to enroll in the required computer science background courses. These students must have been highly recommended based upon evidence of scholarly potential.

A student with a bachelor’s degree in a discipline other than computer science must possess a computer science background equivalent to the following PVAMU courses before being admitted to:

MS in Computer Science Program:

COMP 2013  Data Structures 3
COMP 2103  Discrete Structures 3
MATH 2024  Calculus with Analytic Geometry II 4
### Master of Science in Computer Information Systems Degree Program Requirements

**Computer Information Systems Core Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINS 5033</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5043</td>
<td>Data Communications and Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5063</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5073</td>
<td>Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5183</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5193</td>
<td>Enterprise Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (select one from below):**  
18

**Thesis Concentration:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINS 5906</td>
<td>Masters Thesis</td>
<td></td>
</tr>
</tbody>
</table>

**Electives (Select 12 hours from the approved CINS Electives)**

**Non-Thesis Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINS 5913</td>
<td>Masters Project</td>
<td></td>
</tr>
<tr>
<td>or CINS 5383</td>
<td>Software Project Management</td>
<td></td>
</tr>
</tbody>
</table>

**Electives (Select 15 hours from the approved CINS Electives)**

**Total Hours**  
36

### General CINS Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINS 5103</td>
<td>Decision Support Systems</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5153</td>
<td>Object-Oriented Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5173</td>
<td>Information Storage and Retrieval</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5203</td>
<td>Web Application Dev I</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5243</td>
<td>Web Application Development II</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5303</td>
<td>E-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5313</td>
<td>Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5323</td>
<td>Multimedia Applications</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5343</td>
<td>Mobile &amp; Wireless Info Systems</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5893</td>
<td>Applied Research</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5983</td>
<td>Special Topics in Computer Information Systems (Special Topics)</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5993</td>
<td>Independent Study</td>
<td>3</td>
</tr>
</tbody>
</table>

### Master of Science in Computer Science Degree Program Requirements

**Computer Science Core Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 5003</td>
<td>Research Methods and Graduate Seminar</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5113</td>
<td>Fundamentals and Concepts of Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5123</td>
<td>Advanced Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5133</td>
<td>Advanced Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5143</td>
<td>Advanced Database Management System</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5153</td>
<td>Design and Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5423</td>
<td>Software Engineering Processes</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (Select one from below):**  
15
Thesis Concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 5906</td>
<td>Masters Thesis</td>
</tr>
</tbody>
</table>

Electives (Select 9 hours from the approved Computer Science Electives)

Non-Thesis Concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>COMP 5913</td>
<td>Masters Project</td>
</tr>
</tbody>
</table>

Electives (Select 12 hours from the approved Computer Science Electives)

Total Hours 36

General Computer Science Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>COMP 5213</td>
<td>Advanced Data Communications and Computer Networks 3</td>
</tr>
<tr>
<td>COMP 5233</td>
<td>Distributed Computing and Parallel Processing 3</td>
</tr>
<tr>
<td>COMP 5253</td>
<td>Theory of Computation                      3</td>
</tr>
<tr>
<td>COMP 5263</td>
<td>Computer Graphics                          3</td>
</tr>
<tr>
<td>COMP 5273</td>
<td>Data Mining                                3</td>
</tr>
<tr>
<td>COMP 5283</td>
<td>Machine Learning                           3</td>
</tr>
<tr>
<td>COMP 5323</td>
<td>Computer and Network Security              3</td>
</tr>
<tr>
<td>COMP 5413</td>
<td>Object-Oriented Analysis and Design Methodology 3</td>
</tr>
<tr>
<td>COMP 5433</td>
<td>Software Project Planning and Management   3</td>
</tr>
<tr>
<td>COMP 5443</td>
<td>Advanced Software Quality Assurance        3</td>
</tr>
<tr>
<td>COMP 5463</td>
<td>Human Computer Interaction and Interface Design 3</td>
</tr>
<tr>
<td>COMP 5893</td>
<td>Applied Research                           3</td>
</tr>
<tr>
<td>COMP 5983</td>
<td>Special Topics in Computer Science (Special Topics) 3</td>
</tr>
<tr>
<td>COMP 5993</td>
<td>Independent Study                          3</td>
</tr>
</tbody>
</table>

Professional and Honor Societies

The Department sponsors a certified student chapter of the Association for Computing Machinery. Membership (local and national) is open to all fulltime Computer Science majors. The department also sponsors Upsilon Phi Epsilon (Computer Science Honor Society) for all Computer Science majors with a GPA of 3.0 or above. Any student having completed 64 semester hours of course work (18 hours of core computer science courses) is eligible for consideration by the society.

Electrical and Computer Engineering

Purpose and Goals

The primary purpose of the Electrical Engineering Program is to prepare students for a successful professional career in electrical engineering. The curriculum is structured to provide each student with a sound background in mathematics, physical sciences, engineering sciences and a thorough foundation in electrical engineering for the analysis and design of electrical and electronic circuits and systems.

The program educational objectives of the Electrical Engineering program at Prairie View A&M University are:

1. To produce graduates for successful careers in Electrical Engineering and other related fields.
2. To produce graduates who can secure employment within the State of Texas and, the nation, and the world.
3. To produce graduates who engage in self-development activities through professional study and personal research that will allow them to adapt to evolving technological challenges.
4. To produce graduates who can successfully complete graduate degrees in Electrical Engineering or other disciplines that they may choose.

Computer Engineering

Computer Engineering is a field of engineering that is mainly concerned with applying computer hardware and software to solve practical problems. The primary purpose of the Computer Engineering Program is to prepare students for a successful professional career in the field of computer engineering. The curriculum is structured to provide each student with a strong foundation in the basic sciences of chemistry, mathematics, and physics. In addition, Computer Engineering students will take courses in the following areas: electric circuits, electronics, digital logic circuits, computer organization and architecture, computer interfacing, programming languages, data structures, operating systems, software engineering and microprocessor systems.

The program educational objectives of the Computer Engineering program at Prairie View A&M University are:
1. To produce graduates for successful careers in engineering Computer Engineering and other related fields.
2. To produce graduates who can secure employment within the State of Texas, the nation, and the world.
3. To produce graduates who engage in self-development activities through professional study and personal research that will allow them to adapt to evolving technological challenges.
4. To produce graduates who can successfully complete graduate degrees in Computer Engineering or other disciplines that they may choose.

Admission Requirements

Table 1. First-time Freshmen Requirements for Direct Admission to the Computer and Electrical Engineering Programs

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>High School GPA</th>
<th>SAT/ACT</th>
<th>High School Rank</th>
<th>THEA Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and Electrical Engineering</td>
<td>Yes</td>
<td>3.00</td>
<td>New SAT: 950/18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Transfer Students Requirements for Direct Admission to the Computer and Electrical Engineering Programs

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>Transfer Grades</th>
<th>Transfer GPA (Math; Science and Engineering)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and Electrical Engineering</td>
<td>Yes</td>
<td>&quot;C&quot; or greater</td>
<td>2.50</td>
</tr>
</tbody>
</table>

These tables represent a summary of admission requirements. For more detailed requirements see the section in the catalog pertaining to the Roy G. Perry College of Engineering Admission.

Accreditation Status

The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://ww.abet.org.

Bachelor of Science in Electrical Engineering Degree Program Requirements

Core Curriculum 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3023</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4173</td>
<td>Advanced Math for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM 1034</td>
<td>and Chemistry for Engineers</td>
<td></td>
</tr>
<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
<td>2</td>
</tr>
<tr>
<td>&amp; PHYS 2521</td>
<td>and University Physics Lab II</td>
<td></td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Engineering Lab II for Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>GNEG 2021</td>
<td>Engr Lab III for Math</td>
<td>1</td>
</tr>
<tr>
<td>CVEG 2454</td>
<td>Statics and Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>ELEG 1011</td>
<td>Intro Engr Computer Sci &amp; Tech</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 1021</td>
<td>Introduction to Electrical and Computer Engineering Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 2023</td>
<td>Network Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 2013</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 3061</td>
<td>Introduction to Engineering Project Management</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 4472</td>
<td>Senior Design and Professionalism I</td>
</tr>
<tr>
<td>&amp; ELEG 4482</td>
<td>and Senior Design and Professionalism II</td>
</tr>
<tr>
<td>CHEG 4472</td>
<td>Senior Design and Professionalism - I</td>
</tr>
<tr>
<td>&amp; CHEG 4482</td>
<td>and Senior Design and Professionalism - II</td>
</tr>
<tr>
<td>CVEG 4472</td>
<td>Senior Design and Professionalism - I</td>
</tr>
<tr>
<td>&amp; CVEG 4482</td>
<td>and Senior Design and Professionalism - II</td>
</tr>
<tr>
<td>MCEG 4472</td>
<td>Senior Design and Professionalism-1</td>
</tr>
<tr>
<td>&amp; MCEG 4482</td>
<td>and Senior Design and Professionalism II</td>
</tr>
</tbody>
</table>

Major Requirements
Students in the Electrical Engineering Program are required to take PHYS 2513 and PHYS 2523 to satisfy the Natural Science requirements, ELEG 1043 to satisfy the Computing requirement, MATH 2043 to satisfy Mathematics requirement and CHEG 2003 to satisfy Social and Behavioral Science requirement.

Electrical Engineering Suggested Technical Electives
At least one technical elective must be taken in the Electrical Engineering Department. In addition, one Electrical Engineering Laboratory elective should be taken to satisfy degree requirements. Internship and co-op courses are not suitable as technical electives.

Microelectronics Area

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 4223</td>
<td>Electronic and Photonic Materials and Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4263</td>
<td>VLSI Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4273</td>
<td>Analog and Mixed Signal Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4393</td>
<td>Computer Organization and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Communications/Signal Processing Area

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 4053</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4163</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4313</td>
<td>Broadband Communication Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4323</td>
<td>Broadband Communication Systems II</td>
<td>3</td>
</tr>
</tbody>
</table>

Computer Engineering Area

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 4393</td>
<td>Computer Organization and Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4253</td>
<td>Computer Interfacing and Communications</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4263</td>
<td>VLSI Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4353</td>
<td>Advanced Logic Design</td>
<td>3</td>
</tr>
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</table>

Power and Control Systems Area

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELEG 4243</td>
<td>Power Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4023</td>
<td>Power Systems Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4283</td>
<td>Reliability Analysis of Electrical Facilities</td>
<td>3</td>
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</table>

Electrical and Computer Engineering Laboratory Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 3041</td>
<td>Microelectronic Processing and Characterization Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 4031</td>
<td>Communications Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 4021</td>
<td>Power Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 4151</td>
<td>Digital Signal Processing</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 4291</td>
<td>Mixed Signal Testing Techniques Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 4311</td>
<td>Advanced Logic Design Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>
Other Technical Electives

**CVEG 4093**  Systems Engineering  3
**MCEG 3023**  Thermodynamics II  3
**MCEG 3063**  Fluid Mechanics  3
**MATH 4063**  Numerical Analysis  3
**MATH 3073**  Linear Algebra  3

Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan Option (see Roy G. Perry College of Engineering Academic Programs and Degree Plans), apply up to six semester-credit hours of graduate courses toward technical electives requirements.

Eligibility to Take Upper Division College Courses

The Roy G. Perry College of Engineering requires an eligibility standard for the students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, Mathematics, Science, and Engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students in the Electrical Engineering Program must complete a prescribed list of courses in the following with a minimum Grade Point Average (GPA) of 2.5 to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. The following course must be completed prior to enrolling in Upper Division courses:

- **CHEG 2003**  Eco Anal Technical Application  3
- **CHEM 1021**  Inorganic Chemistry Laboratory II  1
- **CHEM 1034**  Chemistry for Engineers  4
- **COMM 1003**  Fundamentals of Speech Communication  3
- **CVEG 2454**  Statics and Dynamics  4
- **ELEG 1011**  Intro Engr Computer Sci & Tech  1
- **ELEG 1021**  Introduction to Electrical and Computer Engineering Laboratory  1
- **ELEG 1043**  Computer Applications in Engineering  3
- **ELEG 2011**  Electric Circuits Laboratory  1
- **ELEG 2023**  Network Theory I  3
- **ENGL 1123**  Freshman Composition I  3
- **ENGL 1143**  Technical Writing  3
- **GNEG 1121**  Engineering Lab II for Mathematics  1
- **GNEG 2021**  Engr Lab III for Math  1
- **MATH 1124**  Calculus with Analytic Geometry I  4
- **MATH 2024**  Calculus with Analytic Geometry II  4
- **MATH 2043**  Differential Equations  3
- **MCEG 2013**  Thermodynamics I  3
- **PHYS 2511**  University Physics Lab I  1
- **PHYS 2513**  University Physics I  3
- **PHYS 2521**  University Physics Lab II  1
- **PHYS 2523**  University Physics II  3

Bachelor of Science in Computer Engineering Degree Program Requirements

Core Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Engineering Lab II for Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>GNEG 2021</td>
<td>Engr Lab III for Math</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2053</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3023</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1034</td>
<td>Chemistry for Engineers</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2511</td>
<td>University Physics Lab I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2521</td>
<td>University Physics Lab II</td>
<td>1</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ELEG 1011</td>
<td>Intro Engr Computer Sci &amp; Tech</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 1021</td>
<td>Introduction to Electrical and Computer Engineering Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 2023</td>
<td>Network Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 2013</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>CVEG 2454</td>
<td>Statics and Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>GNEG 3061</td>
<td>Introduction to Engineering Project Management</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 2011</td>
<td>Electric Circuits Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 3013</td>
<td>Network Theory II</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3021</td>
<td>Logic Circuits Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 3023</td>
<td>Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3033</td>
<td>Physical Principles of Solid State Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3043</td>
<td>Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3063</td>
<td>Logic Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3071</td>
<td>Microprocessor Systems Design Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 3073</td>
<td>Microprocessor System Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4253</td>
<td>Computer Interfacing and Communications</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4303</td>
<td>Introduction to Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4333</td>
<td>Communication Network Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4393</td>
<td>Computer Organization and Design</td>
<td>3</td>
</tr>
<tr>
<td>COMP 1211</td>
<td>Computer Science Lab I</td>
<td>1</td>
</tr>
<tr>
<td>COMP 1224</td>
<td>Computer Science and Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2013</td>
<td>Data Structures</td>
<td>3</td>
</tr>
</tbody>
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### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 3063</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3113</td>
<td>Object-Oriented Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3223</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP 4953</td>
<td>Data Base Management</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4053</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4263</td>
<td>VLSI Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4273</td>
<td>Analog and Mixed Signal Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4343</td>
<td>Microcontroller Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4353</td>
<td>Advanced Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3073</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

1. Students in the Computer Engineering Program are required to take PHYS 2513 and PHYS 2523 to satisfy the Natural Science requirements, COMP 1213 to satisfy the Computing requirement, MATH 2043 to satisfy Mathematics requirement and CHEG 2003 to satisfy Social and Behavioral Science requirement.

### Computer Engineering Suggested Technical Electives

All computer engineering majors must select one technical elective. Internship and co-op courses are not acceptable as technical electives.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 3063</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3113</td>
<td>Object-Oriented Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>COMP 3223</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP 4953</td>
<td>Data Base Management</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4053</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4263</td>
<td>VLSI Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4273</td>
<td>Analog and Mixed Signal Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4343</td>
<td>Microcontroller Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 4353</td>
<td>Advanced Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3073</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>
Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan Option (see Roy G. Perry College of Engineering Academic Programs and Degree Plans), apply up to six semester-credit hours of graduate courses toward technical electives requirements.

Eligibility to Take Upper Division College Courses

The Roy G. Perry College of Engineering requires an eligibility standard for the students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, Mathematics, Science, and Engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students in the Computer Engineering Program must complete a prescribed list of courses in the following with a minimum Grade Point Average (GPA) of 2.5 to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. The following courses must be completed prior to enrolling in upper division courses:

- CHEG 2003 Eco Anal Technical Application 3
- CHEM 1021 Inorganic Chemistry Laboratory II 1
- CHEM 1034 Chemistry for Engineers 4
- COMP 1211 Computer Science Lab I 1
- COMP 1213 Computer Science I 3
- COMP 1224 Computer Science and Laboratory II 4
- COMP 2013 Data Structures 3
- CVEG 2454 Statics and Dynamics 4
- ELEG 1011 Intro Engr Computer Sci & Tech 1
- ELEG 1021 Introduction to Electrical and Computer Engineering Laboratory 1
- ELEG 2011 Electric Circuits Laboratory 1
- ELEG 2023 Network Theory I 3
- ENGL 1123 Freshman Composition I 3
- ENGL 1143 Technical Writing 3
- GNEG 1121 Engineering Lab II for Mathematics 1
- GNEG 2021 Engr Lab III for Math 1
- MATH 1124 Calculus with Analytic Geometry I 4
- MATH 2024 Calculus with Analytic Geometry II 4
- MATH 2043 Differential Equations 3
- MATH 2053 Discrete Mathematics 3
- MCEG 2013 Thermodynamics I 3
- PHYS 2511 University Physics Lab I 1
- PHYS 2513 University Physics I 3
- PHYS 2521 University Physics Lab II 1
- PHYS 2523 University Physics II 3

Purpose and Goals

The primary purpose of the Electrical Engineering Programs is to enhance students’ skills in specialized areas and provide opportunities for students to pursue careers in private industry, government research laboratories and design facilities.

The objectives of the program are:

- To produce graduate students who have advanced training in one of the following areas of emphasis in Electrical Engineering: (i) Microelectronics, (ii) Computer Engineering, (iii) Telecommunications and Signal processing, (iv) Power Engineering
- To produce a significant number of graduates with experience in research.
- To prepare outstanding students to pursue doctoral degrees.
- To produce post-graduates who have the technical, cognitive and interpersonal skills that will allow them to secure employment within the State of Texas, or in the nation.

Master of Science in Electrical Engineering Degree Program Requirements

General Requirements

Select two of the following: 6

- GNEG 5033 Engineering Probability and Statistics
- GNEG 5063 Engineering Analysis I
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNEG 5073</td>
<td>Engineering Analysis II</td>
</tr>
<tr>
<td>GNEG 5133</td>
<td>Engineering Numerical Methods</td>
</tr>
</tbody>
</table>

Technical Electives (see list of technical elective options below)

At least two technical electives must be taken in the Electrical Engineering department

Concentration (select one concentration from below):

Total Hours

### Thesis Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>ELEG 5996</td>
<td>Thesis</td>
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</table>

Select two classes from one of the tracks listed below:

Computer Engineering Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6103</td>
<td>Advanced Computer Systems Design</td>
</tr>
<tr>
<td>ELEG 6113</td>
<td>Computer Architecture &amp; Advanced Logic Design</td>
</tr>
<tr>
<td>ELEG 6123</td>
<td>The Internet: Design and Implementation</td>
</tr>
<tr>
<td>ELEG 6133</td>
<td>Fault Tolerant Computing</td>
</tr>
<tr>
<td>ELEG 6143</td>
<td>Modeling and Performance of Computer Architectures</td>
</tr>
<tr>
<td>ELEG 6153</td>
<td>Information Networks</td>
</tr>
</tbody>
</table>

Communication and Signal Processing Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6203</td>
<td>Wireless Networks</td>
</tr>
<tr>
<td>ELEG 6213</td>
<td>Digital Communications</td>
</tr>
<tr>
<td>ELEG 6223</td>
<td>Network Management</td>
</tr>
<tr>
<td>ELEG 6243</td>
<td>Advanced Broadband Communications Systems</td>
</tr>
<tr>
<td>ELEG 6313</td>
<td>Stochastic Processes</td>
</tr>
<tr>
<td>ELEG 6323</td>
<td>DSP Systems Design</td>
</tr>
<tr>
<td>ELEG 6333</td>
<td>Wavelets and Their Applications</td>
</tr>
<tr>
<td>ELEG 6353</td>
<td>Advanced Digital Signal Processing</td>
</tr>
</tbody>
</table>

Microelectronics Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6403</td>
<td>Solid State Devices</td>
</tr>
<tr>
<td>ELEG 6413</td>
<td>Integrated Circuit Fabrication</td>
</tr>
<tr>
<td>ELEG 6423</td>
<td>VLSI and ULSI Design</td>
</tr>
<tr>
<td>ELEG 6433</td>
<td>Semiconductor Devices</td>
</tr>
<tr>
<td>ELEG 6543</td>
<td>Advanced Solid State</td>
</tr>
<tr>
<td>ELEG 6553</td>
<td>Advanced Mixed Signal Design</td>
</tr>
</tbody>
</table>

Power Engineering Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6713</td>
<td>Power System Faults Protective</td>
</tr>
<tr>
<td>ELEG 6723</td>
<td>Power System Stability</td>
</tr>
<tr>
<td>ELEG 6733</td>
<td>High Voltage Direct Current</td>
</tr>
<tr>
<td>ELEG 6743</td>
<td>Power Gen Oper Control</td>
</tr>
<tr>
<td>ELEG 6753</td>
<td>Advanced Power System</td>
</tr>
<tr>
<td>ELEG 6763</td>
<td>Power Electronics Power System</td>
</tr>
<tr>
<td>ELEG 6773</td>
<td>Advanced Electric Drives</td>
</tr>
<tr>
<td>ELEG 6783</td>
<td>Advanced Power Electronics</td>
</tr>
</tbody>
</table>

Total Hours

### Non-Thesis Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ELEG 5913</td>
<td>Engineering Project</td>
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</table>

Select three classes from one of the tracks listed below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6103</td>
<td>Advanced Computer Systems Design</td>
</tr>
<tr>
<td>ELEG 6113</td>
<td>Computer Architecture &amp; Advanced Logic Design</td>
</tr>
<tr>
<td>ELEG 6123</td>
<td>The Internet: Design and Implementation</td>
</tr>
<tr>
<td>ELEG 6133</td>
<td>Fault Tolerant Computing</td>
</tr>
<tr>
<td>ELEG 6143</td>
<td>Modeling and Performance of Computer Architectures</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>ELEG 6153</td>
<td>Information Networks</td>
</tr>
</tbody>
</table>

**Communication and Signal Processing Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6203</td>
<td>Wireless Networks</td>
</tr>
<tr>
<td>ELEG 6213</td>
<td>Digital Communications</td>
</tr>
<tr>
<td>ELEG 6223</td>
<td>Network Management</td>
</tr>
<tr>
<td>ELEG 6243</td>
<td>Advanced Broadband Communications Systems</td>
</tr>
<tr>
<td>ELEG 6313</td>
<td>Stochastic Processes</td>
</tr>
<tr>
<td>ELEG 6323</td>
<td>DSP Systems Design</td>
</tr>
<tr>
<td>ELEG 6333</td>
<td>Wavelets and Their Applications</td>
</tr>
<tr>
<td>ELEG 6353</td>
<td>Advanced Digital Signal Processing</td>
</tr>
</tbody>
</table>

**Microelectronics Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6403</td>
<td>Solid State Devices</td>
</tr>
<tr>
<td>ELEG 6413</td>
<td>Integrated Circuit Fabrication</td>
</tr>
<tr>
<td>ELEG 6423</td>
<td>VLSI and ULSI Design</td>
</tr>
<tr>
<td>ELEG 6433</td>
<td>Semiconductor Devices</td>
</tr>
<tr>
<td>ELEG 6543</td>
<td>Advanced Solid State</td>
</tr>
<tr>
<td>ELEG 6553</td>
<td>Advanced Mixed Signal Design</td>
</tr>
</tbody>
</table>

**Power Engineering Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6713</td>
<td>Power System Faults Protective</td>
</tr>
<tr>
<td>ELEG 6723</td>
<td>Power System Stability</td>
</tr>
<tr>
<td>ELEG 6733</td>
<td>High Voltage Direct Current</td>
</tr>
<tr>
<td>ELEG 6743</td>
<td>Power Gen Oper Control</td>
</tr>
<tr>
<td>ELEG 6753</td>
<td>Advanced Power System</td>
</tr>
<tr>
<td>ELEG 6763</td>
<td>Power Electronics Power System</td>
</tr>
<tr>
<td>ELEG 6773</td>
<td>Advanced Electric Drives</td>
</tr>
<tr>
<td>ELEG 6783</td>
<td>Advanced Power Electronics</td>
</tr>
</tbody>
</table>

**Technical Electives**

**Electrical Engineering Technical Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6103</td>
<td>Advanced Computer Systems Design</td>
</tr>
<tr>
<td>ELEG 6113</td>
<td>Computer Architecture &amp; Advanced Logic Design</td>
</tr>
<tr>
<td>ELEG 6123</td>
<td>The Internet: Design and Implementation</td>
</tr>
<tr>
<td>ELEG 6133</td>
<td>Fault Tolerant Computing</td>
</tr>
<tr>
<td>ELEG 6143</td>
<td>Modeling and Performance of Computer Architectures</td>
</tr>
<tr>
<td>ELEG 6153</td>
<td>Information Networks</td>
</tr>
<tr>
<td>ELEG 6203</td>
<td>Wireless Networks</td>
</tr>
<tr>
<td>ELEG 6213</td>
<td>Digital Communications</td>
</tr>
<tr>
<td>ELEG 6223</td>
<td>Network Management</td>
</tr>
<tr>
<td>ELEG 6233</td>
<td>Coding Theory</td>
</tr>
<tr>
<td>ELEG 6243</td>
<td>Advanced Broadband Communications Systems</td>
</tr>
<tr>
<td>ELEG 6253</td>
<td>Telecommunications Network Security</td>
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<tr>
<td>ELEG 6303</td>
<td>Signal Detection and Estimation</td>
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<td>ELEG 6313</td>
<td>Stochastic Processes</td>
</tr>
<tr>
<td>ELEG 6323</td>
<td>DSP Systems Design</td>
</tr>
<tr>
<td>ELEG 6333</td>
<td>Wavelets and Their Applications</td>
</tr>
<tr>
<td>ELEG 6343</td>
<td>Advanced Signals and Systems</td>
</tr>
<tr>
<td>ELEG 6353</td>
<td>Advanced Digital Signal Processing</td>
</tr>
<tr>
<td>ELEG 6403</td>
<td>Solid State Devices</td>
</tr>
<tr>
<td>ELEG 6413</td>
<td>Integrated Circuit Fabrication</td>
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<tr>
<td>ELEG 6423</td>
<td>VLSI and ULSI Design</td>
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Total Hours: 12
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<th>Credits</th>
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<tr>
<td>ELEG 6433</td>
<td>Semiconductor Devices</td>
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<tr>
<td>ELEG 6503</td>
<td>Advanced Photonics Materials and Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6513</td>
<td>Advanced Quantum Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6523</td>
<td>Advanced Characterization of Materials and Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6533</td>
<td>Advanced VLSI Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6543</td>
<td>Advanced Solid State</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6553</td>
<td>Advanced Mixed Signal Design</td>
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<tr>
<td>ELEG 6713</td>
<td>Power System Faults Protective</td>
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</tr>
<tr>
<td>ELEG 6723</td>
<td>Power System Stability</td>
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</tr>
<tr>
<td>ELEG 6733</td>
<td>High Voltage Direct Current</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6743</td>
<td>Power Gen Oper Control</td>
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<tr>
<td>ELEG 6753</td>
<td>Advanced Power System</td>
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<tr>
<td>ELEG 6763</td>
<td>Power Electronics Power System</td>
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<tr>
<td>ELEG 6773</td>
<td>Advanced Electric Drives</td>
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<tr>
<td>ELEG 6783</td>
<td>Advanced Power Electronics</td>
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<tr>
<td>CHEG 5023</td>
<td>Microelectronics Materials</td>
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<tr>
<td>CINS 5063</td>
<td>Data Structures and Algorithms</td>
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</tr>
<tr>
<td>CINS 5153</td>
<td>Object-Oriented Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CINS 5323</td>
<td>Multimedia Applications</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5153</td>
<td>Design and Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5183</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5233</td>
<td>Distributed Computing and Parallel Processing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 5263</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CVEG 5123</td>
<td>Structural Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>CVEG 5133</td>
<td>Physical/Chemical Unit Operations in Water and Wastewater Treatment</td>
<td>3</td>
</tr>
<tr>
<td>CVEG 5173</td>
<td>Finite Element Analysis</td>
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</tr>
<tr>
<td>GNEG 5033</td>
<td>Engineering Probability and Statistics</td>
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<td>GNEG 5063</td>
<td>Engineering Analysis I</td>
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<tr>
<td>GNEG 5073</td>
<td>Engineering Analysis II</td>
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<tr>
<td>GNEG 5133</td>
<td>Engineering Numerical Methods</td>
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<tr>
<td>GNEG 5193</td>
<td>Special Topics (Advanced Heat Transfer - 001)</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 5193</td>
<td>Special Topics (Dynamics of Mechanical Systems - 003)</td>
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</tr>
<tr>
<td>GNEG 5193</td>
<td>Special Topics (Modern Control Systems - 015)</td>
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<tr>
<td>GNEG 5193</td>
<td>Special Topics (Advanced Analytic Basis Design - 019)</td>
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<tr>
<td>GNEG 5193</td>
<td>Special Topics (Environmental Modeling - 172)</td>
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<tr>
<td>GNEG 5193</td>
<td>Special Topics (Water Quality Management -175)</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 5193</td>
<td>Special Topics (Management of Engineering Projects - 179)</td>
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<tr>
<td>MATH 5033</td>
<td>Complex Analysis II</td>
<td>3</td>
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<tr>
<td>MATH 5343</td>
<td>Boundary Value Problems</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5613</td>
<td>Theory of Matrices</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5723</td>
<td>Partial Differential Equations</td>
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<tr>
<td>MATH 5773</td>
<td>Functional Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5903</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 5023</td>
<td>Advanced Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 5253</td>
<td>Advanced Engineering Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

**Doctor of Philosophy in Electrical Engineering Degree Program**

**Purpose and Goals**

The Doctor of Philosophy program in Electrical Engineering is designed to prepare students to be scholars, to develop the students’ capacities to understand issues and problems at the frontiers of knowledge and to make significant contributions to that knowledge. The PhD. program’s overall
educational goals are to provide doctoral training in Electrical Engineering research, to develop new knowledge in engineering, and to disseminate the knowledge gained.

The educational objectives of the PhD. in Electrical Engineering program are:

1. To produce competent engineering researchers who can communicate new and innovative research findings to engineers and scientists,
2. To train engineers who are well versed in the general body of knowledge in Electrical Engineering,
3. To produce researchers with specialized knowledge in Electrical Engineering, and
4. To increase the number of Electrical Engineering doctorates.

Program Requirement

The minimum required coursework beyond the Master’s degree is 53 semester credit hours (SCH). This credit hour requirement includes coursework prescribed for students in support of area of concentration (9 SCH), free electives in support of doctoral dissertation and specialization (15 SCH), doctoral research (12 SCH), dissertation (12 SCH), stochastic process course (3 SCH) and graduate seminars (2 SCH). Courses taken during a master’s degree program may not be repeated for credit at the doctoral level

Student Advisement and Supervision

The Electrical and Computer Engineering Graduate Program Administrator will serve as the Graduate Advisor of each student upon admission into the Ph.D. program. After the student completes nine hours of doctoral class work, the student will be required to choose a chairperson of the student’s Ph.D. Advisory committee. The student will select the members of the student’s Ph.D. committee in consultation with the Graduate Program Administrator and the chairperson of the student Ph.D. committee. The chair of the individual doctoral student’s committee is responsible for advising that student for courses taken beyond the first nine credit hours.

Doctoral Advisory Committee

The Graduate Program Administrator will assist the graduate student in securing an Academic Advisor, who will act as the Chair of the Doctoral Advisory Committee and will be responsible for advising and supervising the student. After the student has successfully completed the qualifying examination, the Chair of the Doctoral Advisory Committee and the Graduate Program Administrator will select the Doctoral Advisory Committee, consisting of five graduate faculty members. One member of the doctoral Advisory committee will be chosen from outside the department of Electrical Engineering. The choice of the outside faculty members will be based on the individual student needs and the selected dissertation topic. As soon as a student’s program has been determined, the Graduate Program Administrator will recommend the Doctoral Advisory Committee to the Dean of the College of Engineering for approval. The Dean of the College of Engineering may change the Chair of the Doctoral Advisory committee upon request of the doctoral student.

The Doctoral Advisory Committee and the Graduate Program Administrator will develop a tentative timetable for completion of all requirements for the degree program; monitor the student’s coursework and research; provide advice and feedback to the student; file an Annual Report of the student’s progress with the Office of the Dean of the College of Engineering; approve a research topic; supervise the preparation of the research project; uphold the standards of the College and the University; inform the Dean of the Dean of the College of Engineering, in writing, if a student’s performance is inadequate and provide relevant advisory committee recommendations; and formulate and conduct the preliminary and qualifying examinations. The student’s Advisory Committee Chair acts as head of the Doctoral Advisory Committee and takes the lead in completing these duties.

Graduate Plan of Study

Each doctoral student will be required to file a Graduate Study Plan (GSP) with the College of Engineering before completing 18 semester hours of course work. The GSP outlines the curriculum of study and a timetable to be followed by the doctoral student in meeting the graduate degree requirements. The student prepares the GSP in consultation with the Doctoral Advisory Committee.

Preliminary Examination

When the student has completed 9 semester hours of coursework in the doctoral program, he or she will be required to take a preliminary examination. The preliminary examination will be taken at the beginning of the second semester of the student’s doctoral program. The preliminary examination will be a written test of knowledge in at least three areas of electrical engineering. The student will choose from the following areas: Microelectronics, Computer Networks, Power Engineering, Control Systems, Communications, Digital Systems, Engineering Mathematics, and Signal Processing. The preliminary examination will be prepared and administered by the Graduate Program Administrator and graduate faculty. Students failing any portion of the preliminary examinations must consult with the Graduate Program Administrator to determine the steps to be taken. Two consecutive failures on the examination will result in the student’s dismissal from the Ph.D. program.

Qualifying Examination

A doctoral student will be required to successfully pass a qualifying examination. The qualifying examination consists of a research proposal, written and oral examinations on the student’s area of research. The doctoral student must take a qualifying examination by the time he or she has completed 36 semester hours of coursework. The qualifying examination will be prepared and administered by the Graduate Program Administrator and the student’s Doctoral Advisory Committee.
The student must pass either unconditionally or conditionally. A conditional pass indicates specific weaknesses in the student's background that must be remedied before degree requirements are completed. All remedies should be completed within a year after the first attempt at passing the Qualifying examination. Two consecutive failures on the examination will result in the student's dismissal from the Ph.D. program. The Graduate Program Administrator will recommend the doctoral students who pass the qualifying examinations to the Dean of the College of Engineering for admission to candidacy.

Advancement to Candidacy

Following successful completion of the qualifying examinations, it is the student's responsibility to petition for advancement to candidacy. To be advanced to candidacy, students must have completed all of the following requirements and/or procedures:

1. Achieved a cumulative grade-point average of 3.0 or above in program course work.
2. Successfully passed the preliminary examination.
3. Successfully passed the qualifying examination.

The doctoral student is required to submit the application for advancement to candidacy at least one semester before the doctoral degree is awarded. The admission to graduate study does not imply “advancement to candidacy” for the doctoral degree.

Doctoral Dissertation

Successful completion of the doctoral dissertation is required. Every doctoral student would be required to pass an oral defense of the dissertation project. Two attempts at passing the dissertation defense are permitted. Failure to pass the dissertation defense will result in the student’s dismissal from the program.

Having met other requirement for the degree, students who successfully defend their dissertations and complete the submission process will be granted the degree of Doctor of Philosophy in Electrical Engineering. The determination of completion requirements for the Doctor of Philosophy degree in Electrical Engineering is solely the province of the program faculty.

The dissertation will not be recommended for final submission to the Dean of the College of Engineering until it has been successfully defended and approved by at least four members of the student’s Doctoral Advisory Committee.

Transfer of Graduate Courses from Other Universities

A maximum of six (6) units of electrical engineering related course work may be transferred from other accredited universities. A minimum grade of “B” is required in any such courses. Transfer credit is granted by petition to, and approval by, the Doctoral Advisory Committee, with final approval by the Dean of the College of Engineering. It is the student’s responsibility to initiate the petition and justify the acceptance of the course. Courses presented for transfer credit must be the equivalent of courses in the doctoral program.

Special Requirements: Residency and Refereed Papers

Every doctoral student will be required to complete, on campus, at least nine (9) months of graduate study beyond the master’s degree. The residence requirement is fulfilled through completion of a full schedule (at least 9 semester hours) of graduate course work in each of two consecutive semesters (excluding summer months).

Each candidate is required to have submitted at least two papers for publication in refereed journals. The candidate should be the first author of the one of the papers submitted for publication. The papers should be based on results of the candidate’s doctoral research.

Good Standing

Ph.D. students remain in good standing when they maintain a minimum cumulative GPA of 3.0 for graded courses in the doctoral program. Only grades of “B” or better count toward required course work of the program. If a grade lower than “B” is received in a required course, the course must be retaken. If a second grade lower than “B” is earned, the student will be dismissed from the program, but may petition the Graduate Program Administrator and Doctoral Advisory Committee for readmission. After reviewing the petition, the committee may allow readmission under such conditions, as it deems appropriate. A third grade lower than “B” will result in permanent dismissal from the program with no recourse to petition.

Time Limit

A student must complete all requirements for the Ph.D. degree within nine (9) consecutive years after the first date of enrollment in the program. Any exception to this policy requires the approval of the Graduate Program Administrator and the Dean of the College of Engineering.

Financial Assistance

The Graduate Programs of the Electrical Engineering Department offer a limited number of graduate assistantships to qualified full-time students. Students who receive such an award are required to assist faculty in research projects and/or teach courses in the undergraduate program. Criteria for assignment of master’s assistantships include quantitative information (GPA, GRE score) and qualitative information (undergraduate preparation, publications, and letters of recommendation). Criteria for assignment of doctoral assistantships to new students include quantitative information (graduate GPA, GRE scores and TOEFL scores) and qualitative and/or supplemental information (letters of recommendation, applicant’s statement
of interest and intent, preparation in the fields of study, academic publications, previous college-level teaching experience, research work in the field, and grant-writing experience). No standardized test scores will be used as the sole criterion for awarding assistantships or for rejecting applicants for assistantships. Student loans are available to graduate students at Prairie View A&M University on the basis of need. For more information about loans and other sources of aid, contact the Office of Student Financial Services, Evans Hall, Room 201, Prairie View A&M University, Prairie View, TX 77446.

Degree Program Requirements

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6011</td>
<td>Graduate Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 6021</td>
<td>Graduate Seminar II</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 6313</td>
<td>Stochastic Processes</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 7016</td>
<td>Doctoral Research I</td>
<td>6</td>
</tr>
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<td>ELEG 7026</td>
<td>Doctoral Research II</td>
<td>6</td>
</tr>
<tr>
<td>ELEG 7916</td>
<td>Doctoral Dissertation I</td>
<td>6</td>
</tr>
<tr>
<td>ELEG 7926</td>
<td>Doctoral Dissertation II</td>
<td>6</td>
</tr>
</tbody>
</table>

Elective Courses Prescribed for Students

6000 or 7000 level Electrical Engineering courses selected from one of the Electrical Engineering tracks. 9

Free Electives

5000 to 7000 level graduate courses, but not more than 9 SCH course at the 5000 level will be accepted. 15

Total Hours 53

Courses for Electrical Engineering Tracks

(A) Computer Engineering Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6103</td>
<td>Advanced Computer Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6113</td>
<td>Computer Architecture &amp; Advanced Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6123</td>
<td>The Internet: Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6133</td>
<td>Fault Tolerant Computing</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6143</td>
<td>Modeling and Performance of Computer Architectures</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6153</td>
<td>Information Networks</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 7103</td>
<td>Advanced Topics in Computer Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

(B) Communication and Signal Processing Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6203</td>
<td>Wireless Networks</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6213</td>
<td>Digital Communications</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6223</td>
<td>Network Management</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6233</td>
<td>Coding Theory</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6243</td>
<td>Advanced Broadband Communications Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6253</td>
<td>Telecommunications Network Security</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6303</td>
<td>Signal Detection and Estimation</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6313</td>
<td>Stochastic Processes</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6323</td>
<td>DSP Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6333</td>
<td>Wavelets and Their Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6343</td>
<td>Advanced Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6353</td>
<td>Advanced Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 7123</td>
<td>Advanced Topics in Telecommunications and Signal Processing</td>
<td>3</td>
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</table>

(C) Microelectronics Track

<table>
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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ELEG 6403</td>
<td>Solid State Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6413</td>
<td>Integrated Circuit Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6423</td>
<td>VLSI and ULSI Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6433</td>
<td>Semiconductor Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6503</td>
<td>Advanced Photonics Materials and Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6513</td>
<td>Advanced Quantum Devices</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ELEG 6523</td>
<td>Advanced Characterization of Materials and Devices</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6533</td>
<td>Advanced VLSI Design</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6543</td>
<td>Advanced Solid State</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6553</td>
<td>Advanced Mixed Signal Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**(D) Power Engineering Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 6713</td>
<td>Power System Faults Protective</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6723</td>
<td>Power System Stability</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6733</td>
<td>High Voltage Direct Current</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6743</td>
<td>Power Gen Oper Control</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6753</td>
<td>Advanced Power System</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6763</td>
<td>Power Electronics Power System</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6773</td>
<td>Advanced Electric Drives</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 6783</td>
<td>Advanced Power Electronics</td>
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</table>

**Free Electives**

**Electrical Engineering Technical Electives**

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<tr>
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<th>Credits</th>
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<tr>
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<td>Advanced Electric Drives</td>
<td>3</td>
</tr>
</tbody>
</table>
### Mechanical Engineering

#### Professional and Honor Societies

The two professional organization in the Electrical and Computer Engineering Department are the *Eta Kappa Nu Electrical Engineering Honor Society* and the *Institute of Electrical and Electronic Engineers (IEEE)*.

The *Institute of Electrical and Electronic Engineers (IEEE)* is a professional society open for membership to engineering students who are majoring in electrical or computer engineering and to other students who have interests in electrical engineering. The chapter is affiliated with the national professional engineering society of the Institute of Electrical and Electronic Engineers.

The *Eta Kappa Nu Electrical Engineering Honor Society* is a national honor society recognizing academic excellence in future engineers and those engineers who have made outstanding contributions to society. Membership is by invitation to the top junior and senior students majoring in electrical or computer engineering.

### Mechanical Engineering

#### Purpose and Goals

As one of the broadest engineering branches, mechanical engineering includes design, analysis, and manufacturing associated with: (1) energy; and (2) structures and motion in mechanical systems. Mechanical Engineers design machines, processes, and systems utilizing mechanical and thermal power. The work of Mechanical Engineers include, but is not limited to, the following areas: machinery design and construction, design and analysis of thermal systems, and thermal energy conversion.
systems, manufacturing, instrumentation and controls, fluid and solid mechanics, plant engineering, materials specification and evaluation, research and development, and technical sales. Many Mechanical Engineers are promoted to management and administrative positions.

Because of the global consequences of many engineering endeavors, and because of the continually changing technological climate, the Department emphasizes an integrated curriculum that overlaps other engineering branches and the physical sciences. Graduates of the mechanical engineering curriculum will be prepared to be technical leaders in tomorrow’s society.

The goal of the Mechanical Engineering Program is to produce industrial, scientific, and technological leaders capable of systematically identifying, addressing, and solving technical problems whose solutions will benefit society. Specific educational objectives of the Mechanical Engineering Program are to produce graduates who will:

1. Have successful careers in engineering and related fields;
2. Advance their careers through increasing levels of responsibilities and leadership;
3. Successfully pursue graduate or advanced professional degrees and continuing professional development; and
4. Actively participate in professional and community services.

Eligibility to Take Upper Division College Courses

The Roy G. Perry College of Engineering requires an eligibility standard for the students to take upper division college courses. Students must have completed or be currently enrolled in all lower division (1000 and 2000 level) courses in English, Mathematics, Science, and Engineering to be eligible to enroll in upper division (3000 or 4000 level) courses in the Roy G. Perry College of Engineering. Students in the Mechanical Engineering Program must complete a prescribed list of courses in the following with a minimum Grade Point Average (GPA) of 2.5 to be eligible to enroll in upper division (3000 or 4000 level) courses in the College. Students transferring to the Roy G. Perry College of Engineering with 60 or more semester hours from another institution will be allowed a period of one semester to comply.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CHEM 1034</td>
<td>Chemistry for Engineers</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1143</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2513</td>
<td>University Physics I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; PHYS 2511</td>
<td>University Physics Lab I</td>
<td></td>
</tr>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Engineering Lab II for Mathematics</td>
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</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
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</tr>
<tr>
<td>GNEG 2021</td>
<td>Engr Lab III for Math</td>
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</tr>
<tr>
<td>MCEG 1011</td>
<td>Intro Engr Cs Tech</td>
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</tr>
<tr>
<td>MCEG 1021</td>
<td>Introduction to Mechanical Engineering Drawing and Design Lab I</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 1043</td>
<td>Computer Applications in Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

Admission Requirements

Table 1. First-time Freshmen Requirements for Direct Admission to the Mechanical Engineering Program

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>High School GPA</th>
<th>SAT/ACT</th>
<th>High School Rank</th>
<th>THEA Passed</th>
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</thead>
<tbody>
<tr>
<td>Mechanical Engineering</td>
<td>Yes</td>
<td>3.00</td>
<td>New SAT: 950/18</td>
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</table>

Table 2. Transfer Students Requirements for Direct Admission to the Mechanical Engineering Program

<table>
<thead>
<tr>
<th>Academic Major</th>
<th>Meet PVAMU Admission Standards</th>
<th>Transfer Grades</th>
<th>Transfer GPA (Math; Science and Engineering)</th>
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</thead>
<tbody>
<tr>
<td>Mechanical Engineering</td>
<td>Yes</td>
<td>&quot;C&quot; or Greater</td>
<td>2.50</td>
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</table>

These tables represent a summary of admission requirements. For more detailed requirements see the section in the catalog pertaining to the College of Engineering Admission.

Accreditation Status

## Bachelor of Science in Mechanical Engineering Degree Program Requirements

### Core Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 1124</td>
<td>Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2024</td>
<td>Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3023</td>
<td>Probability and Statistics</td>
<td>3</td>
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<tr>
<td>MATH 4173</td>
<td>Advanced Math for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Engineering Lab II for Mathematics</td>
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</tr>
<tr>
<td>GNEG 2021</td>
<td>Engr Lab III for Math</td>
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</tr>
<tr>
<td>CHEM 1021</td>
<td>Inorganic Chemistry Laboratory II</td>
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<td>CHEM 1034</td>
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<td>University Physics Lab I</td>
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<tr>
<td>PHYS 2521</td>
<td>University Physics Lab II</td>
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<tr>
<td>CVEG 2043</td>
<td>Engineering Mechanics I</td>
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</tr>
<tr>
<td>CVEG 2053</td>
<td>Engineering Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 2053</td>
<td>Introduction to Electrical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 1011</td>
<td>Intro Engr Cs Tech</td>
<td>1</td>
</tr>
<tr>
<td>MCEG 1021</td>
<td>Introduction to Mechanical Engineering Drawing and Design Lab I</td>
<td>1</td>
</tr>
<tr>
<td>MCEG 2013</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 3061</td>
<td>Introduction to Engineering Project Management</td>
<td>1</td>
</tr>
<tr>
<td>MCEG 4472</td>
<td>Senior Design and Professionalism-1</td>
<td>2</td>
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<tr>
<td>MCEG 4482</td>
<td>Senior Design and Professionalism II</td>
<td>2</td>
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</table>

### College and Support Area Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MCEG 2023</td>
<td>Materials Science and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3011</td>
<td>Measurement and Instrumentation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MCEG 3013</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3023</td>
<td>Thermodynamics II &amp; Thermal Science Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>MCEG 3033</td>
<td>Manufacturing Processes</td>
<td>4</td>
</tr>
<tr>
<td>MCEG 3031</td>
<td>and Manufacturing Processes Laboratory</td>
<td></td>
</tr>
<tr>
<td>MCEG 3043</td>
<td>Machine Design I</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3053</td>
<td>Kinematic Design and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3063</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4043</td>
<td>Machine Design II</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4063</td>
<td>Dynamic Systems and Controls</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4093</td>
<td>Finite Element Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CVEG 2063</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCEG 3073</td>
<td>Automatic Controls</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3193</td>
<td>Introduction to Robotics</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4123</td>
<td>Energy System Design</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4163</td>
<td>Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4183</td>
<td>Gas Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4133</td>
<td>Process Modeling and Simulation</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4153</td>
<td>Bioengineering</td>
<td>3</td>
</tr>
</tbody>
</table>

1 All Mechanical Engineering Core Curriculum requirements are shown in the suggested degree program.

## Mechanical Engineering Suggested Technical Electives

Technical electives must be 3000 level or above. At least one technical elective must be taken in the department. Internship and co-op courses are not suitable for technical electives.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCEG 3073</td>
<td>Automatic Controls</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3193</td>
<td>Introduction to Robotics</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4123</td>
<td>Energy System Design</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4163</td>
<td>Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 4183</td>
<td>Gas Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4133</td>
<td>Process Modeling and Simulation</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4153</td>
<td>Bioengineering</td>
<td>3</td>
</tr>
</tbody>
</table>
Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan Option (see College of Engineering Academic Programs and Degree Plans), apply up to six semester-credit hours of graduate courses toward technical electives requirements.

Requirements For Mechanical Engineering as a Minor Field

Students must complete the following 18 SCH of courses to satisfy the Minor requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCEG 3023</td>
<td>Thermodynamics II</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3033</td>
<td>Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3043</td>
<td>Machine Design I</td>
<td>3</td>
</tr>
<tr>
<td>MCEG 3063</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>Two Approved 3000 or 4000 Level MCEG Courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 18

Professional and Honor Societies

American Society of Mechanical Engineers (ASME). The Department sponsors the student chapter of American Society of Mechanical Engineers, the national professional society for mechanical engineering that seeks to develop professional integrity, ethics, and organization skills among the mechanical engineering students on the campus.

Pi Tau Sigma National Honor Society. The Mechanical Engineering Department has a chapter of Pi Tau Sigma, the National Mechanical Engineering Honor Society to recognize and honor outstanding mechanical engineering students on the campus.

School of Architecture

Mission

The School of Architecture combines teaching, research and service to proactively develop the discipline of creative and innovative problem solving to address the needs of our society.

Vision

Graduates of the School of Architecture will participate in the contemporary milieu, encourage, anticipate, and respond to changes in the local, national and international communities.

The School of Architecture with programs in Architecture, Construction Science and Community Development and Art are dedicated to accomplishing their mission through graduates for excellence in teaching, research and service by preparing graduates for leadership roles in rebuilding America's cities and improving the quality of the built environment. By offering a diverse curriculum led by an accomplished faculty in a comprehensive studio and classroom environment, the School of Architecture programs will educate students for significant roles as practitioners, developers and leaders in architecture, construction, community planning and community development. Students in the programs of the School will be challenged to develop their abilities in problem solving, creative thinking and informed decision making as a focus of their professional education. They will accomplish this in a nurturing and student centered environment that fosters personal development and professional excellence.

The location of the School of Architecture near the City of Houston offers an opportunity for students to enrich their learning experience through access to the greater architectural and construction community of the region and the many employment opportunities in the field.
Instructional Organization

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>BS &amp; MARCH</td>
</tr>
<tr>
<td>Community Development</td>
<td>MCD</td>
</tr>
<tr>
<td>Construction Science</td>
<td>BS</td>
</tr>
<tr>
<td>Digital Media Arts</td>
<td>BS</td>
</tr>
</tbody>
</table>

Accreditation

The Master of Architecture degree is accredited by the National Architectural Accrediting Board (NAAB). “The NAAB provides the following mandatory accreditation statement.”

“In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its degree of conformance with established educational standards.

The Doctor of Architecture and Master of Architecture Degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.”

Prairie View A&M University, School of Architecture offers the following NAAB accredited degree program:

Master of Architecture (pre-professional degree with a minimum of 132 credit hours that includes eight design studios + 36 graduate credit hours).

Next accreditation visit: 2018

Centers

Within the School of Architecture, the Texas Institute for the Preservation of History and Culture and the Community Urban and Rural Enhancement Service Center serve as the research and service arms in the Community. Both centers serve to educate and involve the students and faculty in the School and the University with projects and activities related to the historic fabric and urban settings of the community.

The Texas Institute for the Preservation of History and Culture (TIPHC)

Serving as a research and service center for the University and the School of Architecture. The Institute integrates multiple disciplines and a wide range of knowledge, e.g., oral history, historic preservation; and comprehensive documentation reflecting the historical influence of large scale and on small scale communities in Texas. The institute also views indigenous culture, architecture and community development as potentially symbiotic; it moves beyond the tripartite disciplines to a search for ways to educate the students and the community and to actively regenerate human understanding.

Community Urban and Rural Enhancement Service Center (CURES)

The center’s focus is on the survey to work with inner city neighborhoods and documentation, rural communities across the State of Texas to identify their needs pertaining to the built environment as it pertains and to the legacies of culturally specific help them shape their communities. Through collaboration within the School of Architecture programs, the center is able to prepare to help deliver a comprehensive holistic approach to problem solving that assist neighborhoods, local governing bodies, community-based organizations, and citizens with their vision. CURES, develop visions and plans for many types of places and open spaces using green building concepts. Faculty and students involved in the center apply their education and training in architecture, construction and development to promote innovation planning and re-adaptive use of exciting and historic structures. The center is also involved in many of the university’s wide service learning activities that involve students of all disciplines with the enhancement of communities in our state and across our country.

Admission Requirements

Admission is open to all qualified individuals in accordance with the policies of Prairie View A&M University. Application instructions and information for incoming students is completed through the State of Texas Common Application for Freshman Admission available at www.pvamu.edu.

For qualified entering freshmen and transfer students, the School of Architecture offers the Architectural Concepts Institute (ACI), a special summer program described in the catalog section,”Summer and International Enrichment Programs.”

Transfer Students

Transfer students from accredited architecture programs or with non-architectural education backgrounds should contact the School of Architecture for information regarding appropriate placement within the curriculum.
Transfer Courses

Students wishing to transfer architecture and/or construction science courses taken at another institution must provide sufficient evidence of equivalency. No course with a grade less than a “C” will be accepted.

Admission to the Programs

During the spring semester of the third year of study, students wishing to pursue the professional degree in architecture will make formal application to continue in the professional program. Admission will be determined by grade point average (overall and in architecture), a review of the student portfolio of work and faculty recommendations. Students admitted to the professional program will complete the Program A: Professional Track, during their senior year and complete a formal application with the Office of Graduate Studies prior to completing their final semester of undergraduate studies.

Computer Requirement. Students in the program are required to have their own computer for use in the classroom or studio no later than the start of their sophomore year. Computer equipment and software must meet with prescribed hardware and software standards. Computer equipment and software requirements are posted on the school’s website.

Grades. A grade of a “C” or better is required for all Architecture and Construction Science courses. In the program, a “C” is equivalent to a grade of 70-79. Students may repeat architecture and construction science courses only one time for grade replacement purposes.

Student Projects, Papers or Reports. The School of Architecture reserves the right to retain, exhibit, and reproduce all work submitted by students. Work submitted for a grade is the property of the school and remains so until it is returned to the student.

Counseling and Advising. Program Directors, staff and senior faculty members assist students in career counseling and guidance. Advisement for course registration is provided by the academic staff and the responsible academic program director.

Ineligible Registration. The School of Architecture reserves the right to prevent any student who is not eligible for registration from entering a course for reasons such as: unapproved overloads, unapproved repeated courses, lower division-upper division rule infractions, and lack of prerequisites. Any student found to be ineligible for a course, may be dropped from that course at the time of discovery.

Catalog Selection. Students will use the catalog issued for the year in which they were first officially admitted to the School of Architecture or may elect to use a more recent catalog. However, if they later transfer to another institution or another college at PVAMU and wish to return to the School of Architecture at Prairie View A&M University they will follow the current catalog curricula in effect if they are readmitted.

Course Load. Approval from the Program Director and the Dean is required for a course load of more than 18 semester hours (12 hours for a summer term). Correspondence courses are included in the student’s course load, as are courses taken concurrently at other institutions. Students that are employed and working more than 20 hours a week should limit their semester hour enrollment and course selection should be determined with assistance of the academic staff.

Class Attendance. Prairie View A&M University requires regular class attendance. Students in the School of Architecture are expected to attend all scheduled class meeting times and activities. Absences in excess of those stipulated in each individual course syllabus may result in a student’s course grade being reduced. Students should refer to the university’s policy, procedures, and dates on dropping a course. Students are encouraged to meet with their academic advisor for additional information.

Application for Degree. Candidates for the must file for graduation with the School of Architecture and the university in accordance with deadlines established by the university. Typically, cut-off dates to submit an application occur in the final semester prior to the start of the final semester before their anticipated date of graduation. Undergraduate students must have a grade of “C” or better in all Architecture and Construction Science courses and a 2.5 GPA to graduate.

Practicum and Internship Programs. The School of Architecture requires a graduate level internship with an architecture firm for the Masters of Architecture degree. Students may also enroll in an internship at the undergraduate level as an elective course. Students in Construction Science are required to complete two (2) internships. In order to obtain academic credit for the internship, all internships must be approved by the respective academic program director. Architecture students are encouraged to participate in the professional practicum program which offers the opportunity to receive academic credit for such activities as: “study abroad,” completing a semester at another accredited architecture program, or studying in the offices of several leading architectural firms.

Minor. Minors are offered in Architecture, Construction Science, Digital Media Arts and Art. The students should consult with an advisor and have a Minor Approval Form completed, approved and signed. A list of recommended courses is available from the advisor. All minors require 18 hours as listed in this catalog. A listing of courses for both minors is provided in this catalog. At least 9 of the 18 hours must be taken in residence for the Art minor. For the Construction Science minor, only three hours may be taken off campus with the approval of the program director. Grades of a “C” or better are required in each course for both minors.

Academic Standards and Academic Progress

To earn credit for a course in architecture and to qualify for the next course in a sequence, a student must have earned a “C” or better. To repeat a course in architecture more than once, students must have permission of the Dean.
**Bachelor of Science in Architecture**

The Bachelor of Science degree in Architecture, (pre-professional program) provides the common ground for studies in architecture. It is intended to cover the basic content for the preparation of an educated practitioner and to lead to professional studies at the graduate level.

The Bachelor of Science in Architecture degree has two concentrations; Program A, the professional concentration, which upon successful completion, leads directly to enrollment in the Master of Architecture professional degree. Program B, the non-professional concentration, provides a basic education in architecture with the opportunity to study a broad range of elective opportunities. Both tracks consist of 132 credit hours of undergraduate courses.

**Degree Program Requirements**

**Core Requirements**

All Architecture Core Curriculum requirements are shown in the suggested degree program. Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1123</td>
<td>Freshman Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1143</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1123</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>PHSC 1123</td>
<td>Physical Science I</td>
<td>6</td>
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<tr>
<td>&amp; PHSC 2123</td>
<td>Physical Science II</td>
<td></td>
</tr>
<tr>
<td>ARCH 2233</td>
<td>History of Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 1253</td>
<td>Architecture Design</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1313</td>
<td>U.S. to 1876</td>
<td>6</td>
</tr>
<tr>
<td>&amp; HIST 1323</td>
<td>and U.S. 1876 to Present</td>
<td></td>
</tr>
<tr>
<td>POSC 1113</td>
<td>American Government</td>
<td>6</td>
</tr>
<tr>
<td>&amp; POSC 1123</td>
<td>and Texas Government</td>
<td></td>
</tr>
<tr>
<td>ECON 2003</td>
<td>Fundamentals of Economics</td>
<td>3</td>
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<tr>
<td>FINA 2103</td>
<td>Personal Financial Management and Planning</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 1273</td>
<td>Multimedia Digital Applications</td>
<td>3</td>
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</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1233</td>
<td>Visual Communications</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 1266</td>
<td>Architecture Design II</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 2223</td>
<td>Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2243</td>
<td>History of Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2256</td>
<td>Architecture Design III</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 2266</td>
<td>Architecture Design IV</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 2273</td>
<td>Materials and Methods I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3256</td>
<td>Architecture Design V</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 3266</td>
<td>Architecture Design VI</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 3283</td>
<td>Materials and Methods II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3293</td>
<td>Structural Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3453</td>
<td>Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3463</td>
<td>Sustainable Building</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4433</td>
<td>Structural Systems II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4443</td>
<td>CAD Construction Documents and Codes</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration (Select one from below)**

**Professional Track Concentration** take the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 4456</td>
<td>Architecture Design VII</td>
<td></td>
</tr>
<tr>
<td>ARCH 4476</td>
<td>Architecture Design VIII</td>
<td></td>
</tr>
</tbody>
</table>

Architecture Electives (Take 6 hours of ARCH Electives)

Non-Architecture Electives (Take 12 hours of electives in any area)

**Non-Professional Track Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours**

132
Bachelor of Science in Construction Science Program

The Bachelor of Science in Construction Science comprises of a total of 120 credit hours. The curriculum is structured to prepare graduates for professional management and technical positions within the construction industry. Graduates also have the option of obtaining a graduate degree in construction management or business.

The mission of the Construction Science program is to empower students to assume the broad range of professional positions in the construction industry. Graduates will be prepared for employment in planning, estimating, scheduling, coordinating, supervising and managing construction projects. The curriculum structure is designed to provide a well-rounded preparation for entry into the construction business. It is structured to provide students with knowledge of materials, methods, estimating, scheduling, operations, logistics, supervision, management and law. Additional courses required in business, architecture and general education will result in a well-rounded preparation for entry into the field.

Construction Science Degree Program Requirements

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1123 &amp; ENGL 1143</td>
<td></td>
</tr>
<tr>
<td>MATH 1113</td>
<td>3</td>
</tr>
<tr>
<td>PHSC 1123</td>
<td>3</td>
</tr>
<tr>
<td>PHSC 2123</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2243</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 1253</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1313 &amp; HIST 1323</td>
<td>6</td>
</tr>
<tr>
<td>POSC 1113 &amp; POSC 1123</td>
<td>6</td>
</tr>
<tr>
<td>University Approved Social and Behavioral Science course</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2003</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 1273</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CONS 3013</td>
<td>3</td>
</tr>
<tr>
<td>CONS 3533</td>
<td>3</td>
</tr>
<tr>
<td>CONS 3633</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4403 Construction Internship</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4403</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4603</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4633</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4753</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4773</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4733 Advanced Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>or ARCH 4753 Introduction to Geographical Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following: (Students should enroll in one of the following courses that best fits their career goals.)

<table>
<thead>
<tr>
<th>Architecture Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1233 Visual Communications</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2223 Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2273 Materials and Methods I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3283 Materials and Methods II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3293 Structural Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3453 Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3463 Sustainable Building</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4433 Structural Systems II</td>
<td>3</td>
</tr>
</tbody>
</table>
ARCH 4443  CAD Construction Documents and Codes 3
ARCH 4743  Building Information Modeling 3

Other Requirements:
ACCT 2113  Financial Accounting 3
BLAW 2203  Legal Environment of Business 3
MATH 2183  Informal Geometry 3
MGMT 3103  Principles of Management 3
MRKT 3103  Principles of Marketing 3

Total Hours 120

1  CONS 4403 Program requires two summer internships at 3 hours each.
2  Career Options: Depending upon their career objectives and with approval by the program Director, students may substitute one of the following courses for CONS 4423 Commercial Construction.

Construction Science as a Double Major and a Minor
Due to the increased use of the Design-Build Method for project delivery, the School of Architecture offers students majoring in architecture or engineering, the opportunity to obtain a second baccalaureate degree or a minor in the field of construction science. The hours required for the second baccalaureate degree are an addition to those counted for the first degree and must be completed in accordance with university and School of Architecture requirements.

Requirements for Construction Science as a Second Baccalaureate Degree
A double major in Construction Science can be obtained by architecture majors with completion of the following 30 credit hours.

MATH 2003  Elementary Statistics 3
CONS 3013  Construction Estimating 3
CONS 3533  Managing Construction Operations 3
CONS 3633  Surveying and Soils 3
CONS 4403  Construction Internship 3
CONS 4423  Commercial Construction 3
CONS 4603  Construction Labor and Safety 3
CONS 4633  Construction Law and Ethics 3
CONS 4753  Scheduling and Mobilization 3
CONS 4773  Construction Project Controls 3

Total Hours 30

1  Depending on their career interests and with approval of the program Director, the student may substitute CONS 4413, CONS 4433, CONS 4443 or CONS 4453 for CONS 4423.
2  Students may also use ARCH 4743 Building Information Modeling (B.I.M.) or ARCH 4973 (G.I.S.) in place of MATH 2003, CONS 4753 and/or CONS 4773.

Digital Media Arts Program
The Digital Media Arts program is dedicated to educating and training designers of the future. Students will be prepared to meet the high demand of the design industry using their skills in graphic design and interactive media. In addition, students will be introduced to critical design theory and analysis in preparation for graduate study.

Application instructions and information for incoming students is completed through the State of Texas Common Application for Freshman Admission available at www.pvamu.edu. Admission is open to all qualified individuals in accordance with the policies of Texas A&M and Prairie View A&M University.

Degree and Courses
The Digital Media Arts degree mirrors the American Institute of Graphic Arts professional standards. The degree emphasizes:

1. Increasing the ability to create and develop visual responses to communication problems;
2. Increasing the ability to solve communication problems using the design process and beta testing implementation; and
3. Increasing the understanding of and ability to utilize tools and technology. The lower division coursework, Creative Thinking, Sign + Symbols, Fundamentals of Digital Imaging and Fundamentals of Interactive Media, introduce content associated with developing problem-solving strategies and honing technical
proficiency. The upper division coursework focuses on advanced training in technology, branding, print graphic design, motion graphics, various forms of interactive media and project development.

**Question:**
How will a degree in Digital Media Arts help me to be a successful designer?

**Answer:**
Becoming a successful designer is more than just mastering software. Designers must study the history, theory, and traditions of the industry. Design requires excellent communication and basic math skills in addition to creativity. For every aspect of your design, you should be able to explain why. With a degree in Digital Media Arts, you will master all the “other” tools that will make you a well-rounded designer.

**Career Opportunities:**
Professional designers can work in a range of different design careers and projects including: digital design, multimedia design, type design, motion graphics (film title and/or tv graphics), exhibit design, signage design, environmental design, package design, publications systems, educational design, magazine illustration, identity design (branding), information design and design entrepreneur.

**Degree Program Requirements**

**Core Curriculum**

<table>
<thead>
<tr>
<th>Communication (Choose two)</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1123</td>
<td>Freshman Composition I</td>
</tr>
<tr>
<td>ENGL 1133</td>
<td>Freshman Composition II (or)</td>
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<tr>
<td>ENGL 1143</td>
<td>Technical Writing</td>
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<table>
<thead>
<tr>
<th>Mathematics (choose one)</th>
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<tbody>
<tr>
<td>MATH 1103</td>
<td>Contemporary College Algebra</td>
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<tr>
<td>MATH 1113</td>
<td>College Algebra</td>
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<tr>
<td>MATH 1115</td>
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<td>MATH 1123</td>
<td>Trigonometry</td>
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<td>General Inorganic Chemistry</td>
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<thead>
<tr>
<th>Language, Philosophy and Culture</th>
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<tr>
<td>ARTS 2223</td>
<td>History of Art I</td>
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<table>
<thead>
<tr>
<th>Creative Arts</th>
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<tr>
<td>ARTS 2283</td>
<td>African American Art</td>
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<table>
<thead>
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<tr>
<td>HIST 1313</td>
<td>U.S. to 1876</td>
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<tr>
<td>HIST 1323</td>
<td>U.S. 1876 to Present</td>
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<td>HIST 1333</td>
<td>History of Texas</td>
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<tr>
<td>POSC 1113</td>
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<td>POSC 2503</td>
<td>Global Issues</td>
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<tr>
<td>PSYC 1113</td>
<td>General Psychology</td>
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<td>PSYC 2423</td>
<td>Developmental Psyc</td>
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<td>PSYC 2513</td>
<td>Personality</td>
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<tr>
<td>SOCG 1013</td>
<td>General Sociology</td>
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<td>SOCG 2003</td>
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<td>SOCG 2043</td>
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<tr>
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<tbody>
<tr>
<td>COMP 1213</td>
<td>Computer Science I</td>
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<tr>
<td>CPET 1013</td>
<td>Computer Applications in Engineering Technology I</td>
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### School of Architecture

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ELEG 1043</td>
<td>Computer Applications in Engineering</td>
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</tr>
<tr>
<td>FINA 2103</td>
<td>Personal Financial Management and Planning</td>
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#### Professional Development: Area Two (Choose one)

<table>
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<th>Course Code</th>
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<tbody>
<tr>
<td>ARCH 1273</td>
<td>Multimedia Digital Applications</td>
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<tr>
<td>COMM 1003</td>
<td>Fundamentals of Speech Communication</td>
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<tr>
<td>COMM 2603</td>
<td>Interpersonal Communication</td>
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<tr>
<td>COMP 1003</td>
<td>Digital Communication</td>
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<tr>
<td>MISY 1013</td>
<td>Info &amp; Communication in the Digital Age</td>
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#### Major Requirements - 60 SCHs

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<tr>
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<th>Credits</th>
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<tr>
<td>ARTS 1113</td>
<td>Design I</td>
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</tr>
<tr>
<td>ARTS 1123</td>
<td>Design II</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1153</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1173</td>
<td>Creative Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2233</td>
<td>History of Art II</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2313</td>
<td>Graphic Design Hist</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2353</td>
<td>Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2363</td>
<td>Sign + Symbol</td>
<td>3</td>
</tr>
<tr>
<td>DGMA 3123</td>
<td>Layout I</td>
<td>3</td>
</tr>
<tr>
<td>DGMA 3133</td>
<td>Layout II</td>
<td>3</td>
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<tr>
<td>DGMA 3323</td>
<td>Typography I</td>
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<td>DGMA 3333</td>
<td>Typography II</td>
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<tr>
<td>DGMA 3343</td>
<td>Branding</td>
<td>3</td>
</tr>
<tr>
<td>DGMA 3353</td>
<td>Interactive Media</td>
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</tr>
<tr>
<td>DGMA 4143</td>
<td>Problems in Media Arts I</td>
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<tr>
<td>DGMA 4153</td>
<td>Problems in Media Arts II</td>
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<td>DGMA 4163</td>
<td>Advanced Interactive Media</td>
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<tr>
<td>DGMA 4173</td>
<td>Social Media Design</td>
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<tr>
<td>DGMA 4183</td>
<td>Motion Graphics</td>
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<tr>
<td>DGMA 4193</td>
<td>Senior Studio Thesis</td>
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#### Prescribed Electives - 12 SCHs

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ARTS 3193</td>
<td>Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 4103</td>
<td>Creative Photography I</td>
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</tr>
<tr>
<td>DGMA 2173</td>
<td>Fundamentals of Digital Imaging</td>
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</tr>
<tr>
<td>DGMA 2183</td>
<td>Fundamentals of Interactive Media</td>
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#### Free Arts Electives - 6 SCHs (Choose two)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARTS 2133</td>
<td>Ceramics</td>
<td></td>
</tr>
<tr>
<td>ARTS 2193</td>
<td>Painting</td>
<td></td>
</tr>
<tr>
<td>ARTS 3113</td>
<td>Oil Painting I</td>
<td></td>
</tr>
<tr>
<td>ARTS 3143</td>
<td>Sculpture I</td>
<td></td>
</tr>
<tr>
<td>ARTS 3173</td>
<td>Watercolor</td>
<td></td>
</tr>
<tr>
<td>ARTS 3513</td>
<td>Crafts Design</td>
<td></td>
</tr>
<tr>
<td>ARTS 4133</td>
<td>Printmaking II</td>
<td></td>
</tr>
<tr>
<td>ARTS 4213</td>
<td>Book Arts</td>
<td></td>
</tr>
<tr>
<td>DGMA 4203</td>
<td>Special Topics in Digital Media Arts</td>
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</table>

**Total Hours** 120

#### ART MINOR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARTS 1113</td>
<td>Design I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1153</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1203</td>
<td>Introduction to Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2193</td>
<td>Painting</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose (2) two 3 hr courses from the courses listed below: 6
Master of Architecture with a major in Architecture

The Master of Architecture is a professional degree program that prepares students for roles in the profession of architecture by building on the content of the pre-professional degree through intensive and focused advanced studies in architecture design and practice. A major objective of this program is preparing graduates of the professional program to obtain their professional architecture registration. The degree program consists of an undergraduate curriculum of 132 credit hours plus a graduate curriculum of 36 credit hours and is the accredited program at Prairie View A&M University.

Admission Requirements

All students admitted to the Master of Architecture program must meet the admission requirements of the Graduate School of Prairie View A&M University. In addition, for students matriculating from a four-year, pre-professional program (for example, Program B of the Prairie View A&M University Bachelor of Science in Architecture degree) or entering the program with a bachelor’s degree in some discipline other than architecture, the School of Architecture will require submission of a design portfolio for review.

Accreditation

The Master of Architecture degree is accredited by the National Architectural Accrediting Board (NAAB). “The NAAB provides the following mandatory accreditation statement.”

“In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its degree of conformance with established educational standards.

The Doctor of Architecture and Master of Architecture Degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.”

Prairie View A&M University, School of Architecture offers the following NAAB-accredited degree program:

Master of Architecture (pre-professional degree with a minimum of 132 credit hours that includes eight design studios + 36 graduate credit hours).

Next accreditation visit: 2026
Professional Degree Program Requirements

The degree requires a minimum of 36 semester credit hours. The core of the program consists of 30 credit hours of courses required of all students. The remaining six credit hours of electives may be selected from courses in architecture, community development or other graduate degree programs on campus.

Required graduate-level courses consist of 36 SCH.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 5506</td>
<td>Internship</td>
<td>6</td>
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<tr>
<td>ARCH 5566</td>
<td>Architecture Design IX</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 5513</td>
<td>Research Seminar</td>
<td>3</td>
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<tr>
<td>ARCH 5579</td>
<td>Comprehensive Project Studio</td>
<td>9</td>
</tr>
<tr>
<td>ARCH 5483</td>
<td>Structural Systems III</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 5593</td>
<td>Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

Students entering the graduate program with a prior non-professional degree such as (B.S. in Architecture, Bachelor of Environmental Design, Bachelor of Science in Environmental Design or similar degrees) will complete the above requirements as a minimum and, upon review of coursework and portfolio of design work, may be required to take additional undergraduate courses missing from their prior studies.

Students with a prior degree in a major other than architecture or environmental design will have to complete the above degree requirements and approximately 60 semester credit hours of undergraduate and graduate equivalent courses. Included in these hours is a minimum of four design studios which must be passed with a final grade of B or better. With careful scheduling, this program may be completed in 3½ academic years.

Master of Community Development with a major in Community Development

The Master of Community Development is designed to meet the needs of individuals with diverse academic backgrounds who care about the problems and potential of socially, physically and economically distressed communities. The Masters of Community Development seeks to look at Economic Development through the physical environment with our unique location within the School of Architecture at Prairie View A&M University. We offer classes and expertise in both the physical nature of Community Development (Real Estates Development, Land Development and Community Design), as well as the policy and programmatic elements of the discipline (Grant Writing, Negotiations and Historic Preservation). Unique to our Graduate Degree is the fact that NO SPECIFIC UNDERGRADUATE MAJOR is required. Our students have diverse undergraduate backgrounds from Education, Engineering, Business to even Nursing, Sociology and Law. Students will also be involved with the design and development of new and growing communities with the anticipation of avoiding future problems being faced by communities today. The degree consists of a minimum of 36 credit hours, of which 18 are required courses and 18 elective courses. The curriculum is designed to broaden the knowledge base, promote research, service learning and decision making along with developing interactive and collaborative skills applicable to teamwork, management, leadership and entrepreneurship.

Admission Requirements

Regular application requirements of the University and the Graduate School apply to all applicants for the Community Development Master’s degree. In addition, the candidates must schedule a meeting with the program director to develop a study plan which will lay out course selections and identify the need, if any, for additional credit hours beyond the required 36. The GRE is not required for admittance to our program. A strong Undergraduate academic record along with Three (3) Letters of Recommendation are required. Undergraduate GPA’s below 2.75 will be considered on a case by case basis with strong recommendations. A writing sample may be required at the discretion of the department.

Degree Program Requirements

The degree requires a minimum of 36 semester credit hours. The core of the program consists of 18 credit hours of courses required of all students. A list of pre-approved courses is provided, from which the student may select the remaining 18 credit hours. Alternative courses may be selected from offerings of other degree programs on campus, with departmental approval.

Required graduate-level courses consist of 36 SCH.

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE 5013</td>
<td>Introduction to Community Development</td>
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<tr>
<td>CODE 5033</td>
<td>Community Dev Studio</td>
<td>3</td>
</tr>
<tr>
<td>CODE 5043</td>
<td>Community Dev Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>CODE 5063</td>
<td>Commun Dev Prac II</td>
<td>3</td>
</tr>
<tr>
<td>CODE 5343</td>
<td>Community Research</td>
<td>3</td>
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</table>
CODE 5323  Community Analysis  3
CODE 5073  Comm Dev Financing  3
CODE 5083  Demography & GIS  3

Electives  12

Select four classes from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CODE 5093</td>
<td>Coll Community Project Studio</td>
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<tr>
<td>CODE 5103</td>
<td>Cultural Heritage Preservation</td>
<td>3</td>
</tr>
<tr>
<td>CODE 5143</td>
<td>Presv Law &amp; Econ</td>
<td>2</td>
</tr>
<tr>
<td>CODE 5203</td>
<td>Introduction to Community Leadership</td>
<td>2</td>
</tr>
<tr>
<td>CODE 5213</td>
<td>Negotiation, Mediation and Facilitation</td>
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<td>CODE 5303</td>
<td>Community Political Structure</td>
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<tr>
<td>CODE 5313</td>
<td>Community Management and Leadership</td>
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<td>CODE 5503</td>
<td>Capital Development</td>
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<td>CODE 5513</td>
<td>Grant Development</td>
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<tr>
<td>CODE 5523</td>
<td>Campaigns And Gifts</td>
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<tr>
<td>CODE 5543</td>
<td>Research for Capital and Grant Development</td>
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<tr>
<td>CODE 5603</td>
<td>Land Development and Planning in Declining Communities</td>
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<tr>
<td>CODE 5613</td>
<td>Land Development and Use Control Strategies</td>
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<td>CODE 5743</td>
<td>Global Community Development in the United States</td>
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<td>CODE 5753</td>
<td>International Community Development Policies and Practices</td>
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<tr>
<td>CODE 5803</td>
<td>Principles of Real Estate I</td>
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<tr>
<td>CODE 5813</td>
<td>Principles of Real Estate II</td>
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<tr>
<td>CODE 5823</td>
<td>Law of Agency</td>
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<tr>
<td>CODE 5833</td>
<td>Law of Contract</td>
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</tbody>
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Total Hours 36

1  CODE 5406 Internship can be used as a required course to replace CODE 5043 and 5063 with departmental approval.

2  For a broad based understanding of the field of community development, the following are recommended. However, students can select from any of the electives listed.

School of Architecture Community Development Graduate Certification Program

The School of Architecture under its graduate program in Community Development offers certifications in the following study areas:

- Real Estate Development
- Historic Preservation
- Fundraising
- Community Planning
- International Community Development

The purpose for offering graduate certificates is to meet the additional education needs of the community development professional. As jobs responsibilities change due to emerging new markets and demands, additional training or specialized training are often required for many of the other professions. For example, an architect may become involved in the preservation of historic districts or the planning and development of a community; a non-profit executive being involved in fundraising activities; a developer being involved in the development of another country’s infrastructure, etc. Students in the Community Development Master’s Program or any other master’s program have the option to select courses from these study areas to fulfill their elective course requirement. The Community Development Graduate Certification Program is a set of courses that provides in-depth knowledge in a subject matter. The set of courses are more practice-oriented than the required courses in a graduate academic program.

Certificates in Historic Preservation, Fundraising, International Community Development, Real Estate Development, and Community Planning are awarded after the completion of the program, and must be signed by the program director and/or the Dean of the School of Architecture.

The certificate course work consists of 12 semester hours as follows:

Certification in Historic Preservation

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CODE 5103</td>
<td>Cultural Heritage Preservation</td>
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<tr>
<td>CODE 5123</td>
<td>Historic Preservation</td>
<td>3</td>
</tr>
<tr>
<td>CODE 5113</td>
<td>Historic Preservation Material Conservation</td>
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Certification in Fundraising

<table>
<thead>
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<tr>
<td>5143</td>
<td>Presv Law &amp; Econ</td>
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</table>

Certification in Community Planning

<table>
<thead>
<tr>
<th>CODE</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>5203</td>
<td>Introduction to Community Leadership</td>
<td>3</td>
</tr>
<tr>
<td>5363</td>
<td>Community Physical Structure</td>
<td>3</td>
</tr>
<tr>
<td>5603</td>
<td>Land Development and Planning in Declining Communities</td>
<td>3</td>
</tr>
<tr>
<td>5753</td>
<td>International Community Development Policies and Practices</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Certification In International Community Development

<table>
<thead>
<tr>
<th>CODE</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>5203</td>
<td>Introduction to Community Leadership</td>
<td>3</td>
</tr>
<tr>
<td>5303</td>
<td>Community Political Structure</td>
<td>3</td>
</tr>
<tr>
<td>5743</td>
<td>Global Community Development in the United States</td>
<td>3</td>
</tr>
<tr>
<td>5613</td>
<td>Land Development and Use Control Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
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</tbody>
</table>

Certification in Real Estate Development

<table>
<thead>
<tr>
<th>CODE</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>5803</td>
<td>Principles of Real Estate I</td>
<td>3</td>
</tr>
<tr>
<td>5823</td>
<td>Law of Agency</td>
<td>3</td>
</tr>
<tr>
<td>5833</td>
<td>Law of Contract</td>
<td>3</td>
</tr>
<tr>
<td>5813</td>
<td>Principles of Real Estate II</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Certification Procedure

Step 1: Application for the Certificate Program

Apply to the Graduate School for Admission. After being admitted by the Graduate School, the student will be able to request to be considered for one of the Five (5) Certification Programs and will review the requirements with the Director of the Community Development Program.

Step 2: Review of the Application

The student would meet with the Director to develop a study plan to lay out the certification course selections. The Director will review the study plan for compliance with the established requirements for certification.

Step 3: Issue of the Certificate

Upon completion of the certification requirements, the student must notify the Director of their status by applying for certification. The student is required to pay a certification fee of $50 to cover the cost to administer the certification. The Director after their review of the student’s study plan and progress will advise the dean of the college. The director/dean will then authorize the granting of the certificate.

Honor Societies, Clubs, and Service Organizations

Student organizations play an important role in the socialization of students and in helping students develop skills in leadership and service. All students are encouraged to become active members in any of the following appropriate organizations sponsored by the School of Architecture.

- American Institute of Architecture Students (AIAS)
- Construction Specifications Institute (CSI)
- National Organization of Minority Architecture Students (NOMAS)
- Women in Architecture
• The Tau Sigma Delta Honor Architecture Arts of Design National Honor Society
• Alpha Rho Chi
• Association of General Contractors
• National Association of Homebuilders (NAHB)

The Student Support Services (SSS), mission for: PVAMU-School of Architecture

Student Support Services, program also known as “student services,” includes prevention, intervention, transition and follow-up services for students. The Student Support Services program is designed to assist participants with enhancing their academic skills, increase the retention and graduation rates, and promote acceptance into respective graduate and professional school programs.

Student Support Services professionals provide direct services for all students. A major focus is for those students who are experiencing problems that create barriers to learning and of eligible low income; those who are first generation and/or disabled students, and, to foster an institutional climate supportive of the success for those students through comprehensive services and advocacy. Direct services are provided by means such as education, counseling, consultation and individual assessment. In addition, Student Support Services personnel provide in-service training, community collaboration and carry out student service program management. Student Support Services are a vital part of comprehensive school program success.

Student Support Services is also the leaders for the School in supervision of student organizations/professional chapters, career choices and off-campus educational opportunities such as educational travel and studies.

For additional information, refer to the Undergraduate Catalog, Student Services.

Architecture Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1233</td>
<td>Visual Communications</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 1253</td>
<td>Architecture Design</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2233</td>
<td>History of Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 2243</td>
<td>History of Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH</td>
<td>Advanced Architecture Electives 1</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Hours: 18

1 Architecture electives must be 3000 or 4000 level.

Architecture for Construction Science majors

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1266</td>
<td>Architecture Design II</td>
<td>6</td>
</tr>
<tr>
<td>ARCH 2256</td>
<td>Architecture Design III</td>
<td>6</td>
</tr>
<tr>
<td>ARCH</td>
<td>Advanced Architecture Electives 1</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Hours: 18

1 Architecture electives must be 3000 or 4000 level and must not have been applied to the requirements of the construction science degree.

Arts Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 1113</td>
<td>Design I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1153</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1203</td>
<td>Introduction to Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2193</td>
<td>Painting</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose (2) two 3 hr courses from the courses listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 3113</td>
<td>Oil Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 3143</td>
<td>Sculpture I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 3173</td>
<td>Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 3193</td>
<td>Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 3513</td>
<td>Crafts Design</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 4103</td>
<td>Creative Photography I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 18
Construction Science Minor

A minor in Construction Science can be obtained by completing 18 credit hours. Recommended courses are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONS 3013</td>
<td>Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CONS 3633</td>
<td>Surveying and Soils</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4603</td>
<td>Construction Labor and Safety</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4633</td>
<td>Construction Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CONS 4753</td>
<td>Scheduling and Mobilization</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following: 3
- CONS 4413 Residential Construction
- CONS 4423 Commercial Construction
- CONS 4433 Industrial Construction
- CONS 4443 Highway/Heavy Construction
- CONS 4453 Facilities Management

Total Hours: 18

Digital Media Arts Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 1113</td>
<td>Design I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1153</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1203</td>
<td>Introduction to Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2193</td>
<td>Painting</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose (2) two 3 hr courses from the courses listed below: 6
- ARTS 3113 Oil Painting I
- ARTS 3143 Sculpture I
- ARTS 3173 Watercolor
- ARTS 3193 Printmaking
- ARTS 3513 Crafts Design
- ARTS 4103 Creative Photography I

Total Hours: 18

Sustainable Design Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 3463</td>
<td>Sustainable Building ¹</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 3473</td>
<td>Ecology and Man</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4663</td>
<td>Regenerative Design</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4633</td>
<td>Net Zero Energy Design I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4643</td>
<td>Net Zero Energy Design II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 4763</td>
<td>Energy Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 18

¹ ARCH 3463 serves as a prerequisite for entry into the minor. Students must earn a grade of C or better in all courses included in the minor.

Whitlowe R. Green College of Education

Purpose and Goals

The undergraduate teacher education programs in the Whitlowe R. Green College of Education prepare candidates for teaching and related positions in public and private schools as well as in other institutional or organizational settings that promote the educational development and well-being of culturally diverse children and youth. Teacher education programs lead to EC-6, 4-8, 7-12 or all-level EC-12 standard teaching certificates and endorsements.
Accreditation

All teacher education programs offered by the Whitlowe R. Green College of Education are fully accredited by the Texas State Board for Educator Certification (SBEC).

Instructional Organization

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum and Instruction</td>
<td>MED</td>
</tr>
<tr>
<td>Curriculum and Instruction-Reading Education</td>
<td>MED</td>
</tr>
<tr>
<td>Counseling</td>
<td>MA</td>
</tr>
<tr>
<td>Educational Administration</td>
<td>MED</td>
</tr>
<tr>
<td>Educational Leadership</td>
<td>PhD</td>
</tr>
<tr>
<td>Health</td>
<td>BS, MED</td>
</tr>
<tr>
<td>Interdisciplinary Studies</td>
<td>BS</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>BS</td>
</tr>
<tr>
<td>Physical Education</td>
<td>MED</td>
</tr>
<tr>
<td>Special Education</td>
<td>MED</td>
</tr>
</tbody>
</table>

Admission to Teacher Education

Students are eligible for admission to teacher education and to enroll in professional education courses after the following requirements have been met:

1. Completed application.
2. Copy of Driver’s License (front and back).
3. TEA ID Number (this is required—students will be denied without this ID#).
4. Three (3) letters of recommendation from PVAMU faculty.
5. Interview matrix completed and signed by advisor.
6. Updated degree plan.
7. Current Transcript (Unofficial or Official from all Academic Institutions attended).
8. Complete 42 SCH University core with a minimum cumulative GPA of 2.50.
9. Documentation of a criminal background check.
11. TSIA Reading score of ≥ 351. (There are no exceptions or exemptions. Students must have a TSIA Reading score even if they are exempt for the university).
12. TSIA Writing essay score of 5; or an essay score of 4 and multiple choice of 363 or higher, or grade of ≥ C in ENGL 1123 or ENGL 1133.
13. TSIA Math score of 350 or higher, or grade of ≥ C in MATH 1113.
14. Grades of “D” in any English or Math courses are not acceptable.

Application forms may be obtained from the Department of Curriculum and Instruction or through the PVAMU webpage. The Committee for Admission to Teacher Education reviews all applications once per semester. Upon approval (or disapproval) by the Committee, the Chair of the Committee notifies the students by letter.

Admission to Clinical Teaching

Students’ eligibility for admission to clinical teaching at Prairie View A&M University will be ascertained upon adhering to the following prerequisites.

Candidates are eligible for admission to clinical teaching after all of the following requirements have been met:

1. Admission to Teacher Education.
2. Completion of the respective EC-6, EC-12, 4-8, or 7-12 major requirements with a minimum 2.50 grade point average. Only grades of “C” or above will be accepted.
3. Completion of the professional development requirements with a minimum 2.50 grade point average. Only grades of “C” or above will be accepted.
4. Pass both the Representative PPR and Representative Content Examinations with a minimum pass rate of 90%.
5. A passing score of 290 or above on both the PPR and Content Examinations in Certify Teacher.
6. A passing score of 240 or above on the official TExES Content examination.
7. Complete 12 hours of non-classroom review for applicable PPR and Content area preparation. Minimum of six (6) Content Review hours and six (6) PPR Review hours.
8. Completion of the criminal background check authorization for the school district(s) requested for clinical teaching placement;
9. Completion of online graduation application; a copy of the confirmation page signed by an academic advisor.
10. Copy of four (4) validation forms and field logs, documenting completion of 60 hours of field experiences;
11. Completed degree plan signed by academic advisor.
12. Copy of TB test results, completed within one (1) year;
13. Professional resume;
14. Banner registration form; documenting clinical teaching course number(s), and signed by an academic advisor;
15. Degree Program Approval for Clinical Teaching form (signed by the candidate’s advisor, Department Head, and the Director of Clinical Teaching) to include GPA for each program area.

The application for clinical teaching can be obtained through the PVAMU webpage and should be completed prior to the semester planned for clinical teaching. The Committee for Admission to Clinical Teaching reviews all applications. Upon approval (or disapproval) by the Committee, the Chair of the Committee notifies students by letter.

**Clinical Teaching Placement**

Clinical teachers are placed in a local school district within 60 miles of the University and commensurate with the needs of the university. The candidate is cautioned not to contact a school district in an attempt to gain placement for clinical teaching. The placement of candidates for this experience is the responsibility of the Director of Clinical Teaching and Field Experiences. There is an agreement between the school districts and the College of Education that only the Director will make such contacts.

**Appeal and Grievance Process**

A candidate may appeal the decision made by the Committee for Admission to Teacher Education or the Committee for Admission to Clinical Teaching if denied by either committee. The candidate may submit a formal appeal to the University Teacher Education Council. The following steps are to be completed:

1. Confer with the head of the Department of Curriculum and Instruction or the Director of Clinical Teaching and Field Experiences to determine the factors upon which the decision was based.
2. Confer with your faculty advisor to determine if there is evidence that may be presented to the University Teacher Education Council to support the appeal.
3. Prepare the evidence and a letter that states the request for a review and the rationale for such a request.
4. Present the materials to the Dean of the College of Education who will confer with the Chairperson of the University Teacher Education Council about the request for a hearing.
5. Await notification of a hearing date by the office of the Dean of the College of Education.
6. Await a written statement of the University Teacher Education Council’s decision.

**TExES Requirements**

Each candidate for teacher certification in Texas is required to pass the appropriate certification tests in both professional development and specialty areas. This test, known as the Texas Examinations of Educator Standards (TExES), is administered periodically by the National Evaluation Systems, the Educational Testing Services, Inc. under the auspices of the State Board for Educator Certification. Candidates are allowed to take the appropriate certification tests (1) when deemed ready by the individual’s entity; or (2) upon successful completion of the individual’s program requirements, whichever occurs first. “Successful completion” means the candidate has completed all of the program’s requirements for certification except for taking the necessary certification tests.

**Academic or Interdisciplinary Academic Degree Requirement**

The Texas State Education Code (See 13.036) requires that “a person who, after September 1, 1991, applies for a teaching certificate for which the rules of the State Board of Education require a bachelor’s degree must possess a bachelor’s degree received with an academic major or an interdisciplinary academic major including reading, other than education.”

**Certification Options for Interdisciplinary Studies Degree**

The following certification options are available for the Bachelor of Science (B.S.) degree in Interdisciplinary Studies:

- Generalist EC-6
- Generalist 4-8
- English Language Arts and Reading 4-8
- Mathematics 4-8
- Science 4-8
Student Teaching is required for a Bachelor of Science degree in Interdisciplinary Studies.

Academic Major Areas for 7-12 and All Level Certification

All Level and 7-12 certification programs are available in the following subject areas:

- Music EC-12
- Life Sciences 7-12
- Human Performance EC-12
- Mathematics 7-12
- English Language Arts and Reading 7-12
- Science 7-12
- Physical Sciences 7-12
- Social Studies 7-12
- History 7-12

For these certification programs, a degree in a specific academic major is required. The professional education courses (including six (6) hours of student teaching) are incorporated into the academic degree programs approved for these certification programs.

Alternative Teacher Certification Programs (ATCP)

7-12 Certification

This 7-12 certification route is available for entrance on an annual basis. Application is made in the spring semester. This certification option is administered by the Director of the Alternative Teacher Certification Program.

Admission requirements include a baccalaureate degree (with a minimum grade point average of 2.50) from an accredited institution, twenty-four (24) semester hours of course work in a single certification area and forty-eight (48) semester hours of course work within a composite certification area with a minimum grade point average of 2.50 and satisfactory scores on all three parts of the Texas Success Initiative Assessment (TSIA). The required minimum score on the Reading component of TSIA is 351. Those enrolled in the ATCP 7-12 are required to complete six (6) semester hours of professional education course work during the summer prior to one-year internship and the remaining six (6) hours during the period of internship.

EC-12 Generic Special Education Certification

Admission requirements include a baccalaureate degree (with a minimum grade point average of 2.50) from an accredited institution, twenty-four (24) semester hours in English, Mathematics, Social Studies, and Science (with at least 3 semester hours in each) with a minimum grade point average of 2.50, and satisfactory scores on all three parts of the Texas Success Initiative Assessment (TSIA). The required minimum score on the Reading component of TSIA is 351. Those enrolled in EC-12 Generic Special Education ATCP are required to complete six (6) semesters of course work (three (3) hours each in professional development and special education) during the summer prior to one-year internship and six (6) hours of course work in special education during the period of internship.

<table>
<thead>
<tr>
<th>Society</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Association for Childhood Education International (ACEI)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>International Reading Association (IRA)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>Kappa Delta Pi (KDP)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>Phi Delta Kappa (PDK)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>Student Council for Exceptional Children (SCEC)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>Student National Education Association (SNEA)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>Texas Student Education Association (TSEA)</td>
<td>Curriculum and Instruction</td>
</tr>
<tr>
<td>Panther Association for Health, Physical Education, Recreation and Dance (PAHPERD)</td>
<td>Health and Human Performance</td>
</tr>
<tr>
<td>Texas Association for Health, Physical Education, Recreation and Dance (TAHPERD)</td>
<td>Health and Human Performance</td>
</tr>
<tr>
<td>American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD)</td>
<td>Health and Human Performance</td>
</tr>
<tr>
<td>National Association of Sport and Physical Education (NASPE)</td>
<td>Health and Human Performance</td>
</tr>
<tr>
<td>American Association of Health Educators (AAHE)</td>
<td>Health and Human Performance</td>
</tr>
<tr>
<td>The American College of Sports Medicine (ACSM)</td>
<td>Health and Human Performance</td>
</tr>
</tbody>
</table>
The National Commission for Health Education Credentialing (NCHEC) | Health and Human Performance
---|---
The American Council on Exercise (ACE) | Health and Human Performance
Eta Sigma Gamma | Health and Human Performance
Chi Sigma Iota (CSI) | Educational Leadership and Counseling

**Purpose and Goals**

The Whitlowe R. Green College of Education is the designated teacher education unit of the University. The objectives of the college center on the areas of pre-service, in-service, and continuing education of teachers in elementary and secondary schools.

The purpose of graduate programs offered by the college is to help the practitioners in the field to gain a mastery of knowledge and skills in a particular area or discipline. Programs are designed to meet the needs of a diverse student population including but not limited to elementary teachers, subject area teachers, teachers of children with special needs, counselors, and those who aspire for supervisory and administrative roles in elementary and secondary schools. The graduate coursework also enables educators to receive certification and/or endorsement in additional fields. Individuals with degrees in fields outside education who desire to be certified as teachers may pursue graduate studies to meet the state certification requirements.

**Accreditation**

All teacher education programs offered by the Whitlowe R. Green College of Education are fully accredited by the Texas State Board for Educator Certification (SBEC) and the National Council for Accreditation of Teacher Education (NCATE).

**Instructional Organization**

The Whitlowe R. Green College of Education provides programs of study leading to the Master of Arts (M.A.), Master of Arts in Education (M.A.Ed.), the Master of Science in Education (M.S.Ed.), the Master of Education (M.Ed.), and the Doctor of Philosophy (Ph.D.) degrees. Requirements for the masters’ degrees include a common core of twelve semester credit hours, a program concentration of twelve semester credit hours and a research/resource area containing a research requirement or thesis and electives. The Ph.D. in Educational Leadership offers several specializations.

The departments within the college and departments with related fields in other colleges provide program concentrations required for advanced degrees, professional certificates, and endorsements to certificates. Courses are also available for continuing education and professional development.

Departments in the College of Education offer the following majors:

**Department of Curriculum and Instruction**

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum and Instruction</td>
<td>M.S.Ed., M.Ed.</td>
</tr>
<tr>
<td>Special Education</td>
<td>M.S.Ed., M.Ed.</td>
</tr>
<tr>
<td>Curriculum and Instruction-Reading Education</td>
<td>M.S.Ed., M.Ed.</td>
</tr>
</tbody>
</table>

**Department of Health and Human Performance**

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>M.S.Ed., M.Ed.</td>
</tr>
<tr>
<td>Health Education</td>
<td>M.S.Ed., M.Ed.</td>
</tr>
</tbody>
</table>

**Department of Educational Leadership and Counseling**

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Administration</td>
<td>M.S.Ed., M.Ed.</td>
</tr>
<tr>
<td>Counseling</td>
<td>M.A.</td>
</tr>
<tr>
<td>Educational Leadership</td>
<td>Ph.D.</td>
</tr>
</tbody>
</table>

**Master Reading Teacher Certification Program**

The Master Reading Teacher certification program is available to practitioners with a Master’s degree, valid Texas teaching certificate and three years teaching experience. Certified reading specialists may also pursue the MRT certification program. The program offers three options: Elementary, Secondary; and Special Education.

**Admission to the Programs**

A student seeking admission to graduate programs in the College of Education must first be admitted to graduate study and be classified as degree only, certificate-only, degree and certificate, or special graduate student. Specific criteria for admission can be found in the catalog section, “Graduate Admissions.”
Formal application for admission to graduate studies is made to the Office of Graduate Programs. The departments offering graduate degrees may set requirements over and above those set by the Office of Graduate Programs.

**Graduate Teacher Education Certificate and Endorsement Programs**

Graduate-level certificate programs are coordinated and administered by the College of Education. Components of these programs are provided by various colleges and departments throughout the University. In general, all professional certificate programs require the following components:

1. An Area of Specialization (12 semester hours), approved by the State Board for Educator Certification (SBEC), that consists of graduate-level courses in a teaching field or support area common to Texas public schools.
2. Professional Development Courses (6 semester hours), consisting of advanced study in the theory, methods, and problems of education; designed to improve the efficiency and effectiveness of public schools and public school personnel.
3. Resource Area(s) (6 semester hours), consisting of courses that provide background or support knowledge and skills for the specialization, or that extend the student’s preparation in a closely related field.
4. Electives (6 semester hours) usually in one of the three areas above or a combination of them.

Eligibility for a professional certificate requires two to three years of acceptable teaching experience in an accredited elementary or secondary school. All candidates for certification must pass the appropriate components of the Texas Examinations of Educator Standards (TExES). A listing of certificates available and of the specific requirements for each is provided in this catalog section.

Applications for admission to graduate teacher certification programs may be obtained from the Office of the Dean, the Office of Certification, or the Graduate School.

**Approved Professional Certificate and Endorsement Programs**

- **Professional Elementary**
  - Early Childhood EC-6 Generalist

- **Professional Secondary**
  - Health
  - Theater Arts
  - Physical Education

- **Professional Services Certificates**
  - Principal Standard (formally known as Mid-Management Administrator)
  - School Counselor
  - Reading Specialist
  - Superintendent

- **Professional Special Education Certificates**
  - Educational Diagnostician

- **Probationary Certificates (1 year)**
  - Assistant Principal
  - Principal
  - School Counselor
  - Superintendent

**Department of Curriculum and Instruction**

**Purpose and Goals**

The purpose of the Department of Curriculum and Instruction is to provide regional, national, and international leadership in the study and improvement of teaching and learning in diverse educational settings. The Whitlowe R. Green College of Education’s conceptual framework model, Educators as Facilitators of Learning for Diverse Populations (E-FOLD-P), supports the major goals of the teacher education unit. E-FOLD-P guides the design and implementation of teacher education programs located in the College of Education. This conceptual framework constitutes a commitment by the College to develop and prepare candidates:

- As problem solvers, critical thinkers, and decision makers;
- As reflective and continual learners who utilize effective teaching practices;
- As facilitators of student growth and development, by precept and example; and
- As educators with an understanding and appreciation of human diversity and global awareness.
E-FOLD-P also represents the College’s dedication to the preparation of candidates who are technologically literate themselves and who can integrate technology into the learning environments of their students.

Curriculum and Instruction Programs and Degree Plans

The Department of Curriculum and Instruction addresses its purpose through three interrelated efforts: research, the preparation of teaching/practitioner professionals, and service. In carrying out these efforts, the faculty shares the goals to:

1. Generate, disseminate, and apply new knowledge about teaching, learning and performance, which includes technological innovations, in various educational settings;
2. Identify the factors and features that contribute to the design and implementation of effective professional preparation programs in education;
3. Provide exemplary initial preparation and continuing education programs for teachers/specialists in the traditional major academic content areas and in selected related areas central to the operation of effective schools;
4. Provide the opportunities for advanced-level students in selected specialized areas to become highly competent scholar-researchers and scholar-practitioners;
5. Identify, disseminate, and apply principles of universal design for learning in data collection, analysis, and utilization for academic enhancements.
6. Contribute to the educational development of school-aged, university, and adult students in the region through a variety of direct instructional programs; and
7. Enhance that development further by contributing to the design and implementation of exemplary school-based programs through the College of Education-School-Community partnerships.

Degrees Offered

The Department of Curriculum and Instruction offers the Bachelor of Science (B.S.) degree in Interdisciplinary Studies. The student selects an academic major/specialization and completes coursework toward eligibility for certification.

All students pursing teaching certification in the State of Texas must pass a criminal history background check.

The following certification options are available in the B.S. degree:

- Generalist EC-6
- Generalist 4-8
- English Language Arts and Reading 4-8
- Mathematics 4-8
- Science 4-8
- Social Studies 4-8
- Special Education EC-12

8-12 certification programs are available in the following subject areas:

Note: For these certification programs, a degree in the respective major is required.

- English Language Arts and Reading 7-12
- History 7-12
- Life Sciences 7-12
- Mathematics 7-12
- Physical Sciences 7-12
- Science 7-12
- Social Studies 7-12

All Level Certification

- Health EC-12
- Human Performance EC-12
- Music EC-12
- Special Education EC-12

Field Observation Requirements and Clinical Experience Expectations

All teacher candidates are required to complete the planned sequence of field experiences in elementary school and secondary school classrooms. All major and professional education courses must be completed prior to student teaching. Clinical experiences (student teaching) encompasses teaching
during the regular classroom instructional school day for a full semester. For students seeking additional certification in a specialization, the student will complete half the semester in the area of specialization and half in the primary content area.

Whitlowe R. Green College of Education Interdisciplinary Studies Degree Program/ Certification Requirements

Certification Requirements

• Complete all course work on your degree plan with an overall GPA of \( \geq 2.50 \).
• Complete all major or concentration area courses with a grade of C or higher.
• Successfully complete Clinical Experiences (Student Teaching).
• Pass the required state content area exam/exams (currently Texas Examination of Educator Standards [TExES] for Texas Certification).
• Pass the required Pedagogy and Professional Responsibility (PPR) exam (currently Texas Examination of Educator Standards [TExES] for Texas Certification PPR).
• Complete the application in the Office of Teacher Certification.
• Complete fingerprinting.
• Pay the required fees.

Bachelor of Science in Interdisciplinary Studies Program Requirements

<table>
<thead>
<tr>
<th>University Core</th>
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<tbody>
<tr>
<td>Interdisciplinary Studies Major Requirements</td>
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<tr>
<td>MATH 3003 Mathematics in Elementary Schools</td>
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<td>SPED 3003 Introduction to Exceptional Children</td>
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<td>Professional Education Requirements</td>
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<td>KINE 1151 Low Organized Games</td>
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<td>CUIN 3013 Educational Psychology</td>
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<td>CUIN 4103 Instructional Planning and Assessment</td>
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EC-6 Generalist Certification

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<tbody>
<tr>
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<tr>
<td>ECED 3013 Health/Motor/Physical Development</td>
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<td>ECED 4013 Young Child/Cognitive Development</td>
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<td>ECED 4023 Program Organization</td>
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<td>ECED 4113 Instructional Strategies</td>
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<td>ECED 4123 Clinical Experiences</td>
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<td>PHSC 2123 Physical Science II</td>
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<td>PHSC 3083 Science of Everyday</td>
<td>3</td>
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<td>MATH 2163 Structure of Number System</td>
<td>3</td>
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<td>ENGL 3043 Professional Writing for Electronic Media</td>
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<tr>
<td>GEOG 3723 World Regional Geography</td>
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<td>RDNG 3623 Linguistics in Reading Instruction</td>
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<tr>
<td>RDNG 3643 Methods of Teaching Elementary Reading</td>
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<td>RDNG 4643 Children's Lit</td>
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RDNG 4653 Foundations of Reading Instruction  
RDNG 4673 Clinical and Laboratory Experiences in Reading

**Other Professional Education Requirements**

CUIN 4403 Student Teaching/Elementary I  
CUIN 4433 Student Teaching/Early Childhood Education  

**Total Hours**  
59

### 4-8 English, Language Arts and Reading Certification

**English, Language Arts and Reading Major Requirements**

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<tr>
<td>ENGL 3223</td>
<td>Advanced Grammar</td>
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<td>ENGL 3243</td>
<td>Studies in American Literature</td>
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<tr>
<td>COMM 1713</td>
<td>Introduction to Mass Communication</td>
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<tr>
<td>or COMM 2633</td>
<td>Voice and Diction</td>
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<tr>
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<td>Developmental Reading</td>
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<tr>
<td>DRAM 1103</td>
<td>Introduction to Theatre</td>
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<tr>
<td>HLTH 2003</td>
<td>Personal Health and Wellness</td>
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**Other Requirements**

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<tr>
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<td>RDNG 3623</td>
<td>Linguistics in Reading Instruction</td>
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<td>RDNG 3643</td>
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<td>RDNG 4643</td>
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<td>RDNG 4673</td>
<td>Clinical and Laboratory Experiences in Reading</td>
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<td>MATH 2163</td>
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**Other Professional Education Requirement**

CUIN 4416 Student Teaching/Elementary II  

**Total Hours**  
59

### 4-8 Generalist Certification

**4-8 Generalist Major Requirements**

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<td>MATH 2003</td>
<td>Elementary Statistics</td>
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<td>MATH 3163</td>
<td>Mathematics Understanding</td>
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<td>MATH 4003</td>
<td>Mathematics Modeling and Applications</td>
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<td>ENGL 2143</td>
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**Other Professional Education requirements**

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### 4-8 Mathematics Certification

#### 4-8 Mathematics Major Requirements

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<tbody>
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<td>MATH 1153</td>
<td>Finite Mathematics</td>
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<tr>
<td>MATH 2153</td>
<td>Calculus-Business, Life and Social Sciences</td>
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<tr>
<td>MATH 2183</td>
<td>Informal Geometry</td>
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<td>Geometry</td>
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<td>MATH 3103</td>
<td>History of Mathematics</td>
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<td>Mathematics Modeling and Applications</td>
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**Other requirements**

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<tr>
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<tr>
<td>PHSC 1121</td>
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</tr>
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<td>PHSC 3083</td>
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<tr>
<td>BIOL 1034</td>
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<td>BIOL 1111</td>
<td>College Biology Laboratory</td>
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<td>HLTH 2003</td>
<td>Personal Health and Wellness</td>
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<td>GEOG 3723</td>
<td>World Regional Geography</td>
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**KINE Electives**

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### 4-8 Science Certification

#### 4-8 Science Major requirements

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<td>BIOL 2054</td>
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<td>MOD PHYS SCI Teacher</td>
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<td>PHSC 3223</td>
<td>Introduction to Atmospheric Science</td>
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<td>CHEM 1013</td>
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**Other Professional Education Requirements**

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**Total Hours**

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### 4-8 Social Studies Certification

#### 4-8 Social Studies Major requirements

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<tbody>
<tr>
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<td>HIST 3913</td>
<td>American Historiography</td>
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<td>ECON 2113</td>
<td>Principles of Microeconomics</td>
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<td>POSC 2113</td>
<td>Political Parties and Elections</td>
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<td>POSC 3513</td>
<td>Comparative Politics</td>
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<td>POSC 4123</td>
<td>The Constitution and Private Rights</td>
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</tr>
<tr>
<td>PHSC 3083</td>
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**Other Requirements**

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<tr>
<td>MATH 2163</td>
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<td>ENGL 3043</td>
<td>Professional Writing for Electronic Media</td>
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<td>World Regional Geography</td>
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<td>RDNG 3603</td>
<td>Evaluation of Reading Performance</td>
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</tr>
<tr>
<td>RDNG 3623</td>
<td>Linguistics in Reading Instruction</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 4643</td>
<td>Methods of Teaching Elementary Reading</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 4653</td>
<td>Foundations of Reading Instruction</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 4673</td>
<td>Clinical and Laboratory Experiences in Reading</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1111</td>
<td>College Biology Laboratory</td>
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</tr>
<tr>
<td>PHSC 1121</td>
<td>Sci Lab</td>
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**Other Professional Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>CUIN 4403</td>
<td>Student Teaching/Elementary I</td>
<td>3</td>
</tr>
<tr>
<td>CUIN 4433</td>
<td>Student Teaching/Early Childhood Education</td>
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**Total Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>59</strong></td>
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</tbody>
</table>

### EC-12 Special Education All-Level Certification

#### EC-12 Special Education Major requirements

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>SPED 3013</td>
<td>Psychology of Retardation</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4003</td>
<td>Psychology of Behavior Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4013</td>
<td>Language and Communication Problems</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4023</td>
<td>Psychometrics for Exceptional Children and Youth</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4033</td>
<td>Consultation</td>
<td>3</td>
</tr>
<tr>
<td>SPED 4113</td>
<td>Methods for Teaching Exceptional Children</td>
<td>3</td>
</tr>
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<td>SPED 4123</td>
<td>Practicum</td>
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**Other Requirements**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>Physical Science II</td>
<td>3</td>
</tr>
<tr>
<td>PHSC 3083</td>
<td>Science of Everyday</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2163</td>
<td>Structure of Number System</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3043</td>
<td>Professional Writing for Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3723</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 3603</td>
<td>Evaluation of Reading Performance</td>
<td>3</td>
</tr>
</tbody>
</table>
Purpose and Goals

The graduate program is designed to develop those advanced competencies in leadership and instruction that will enable individuals to demonstrate analytical processes in the teaching/learning environment and procedures of educational research and its application.

Admission to Program

The Department of Curriculum and Instruction offers programs leading to the Master of Science in Education and the Master of Education in the following areas:

Curriculum and Instruction………………………..M.S.Ed., M.Ed.
Special Education………………………………… M.Ed., M.S.Ed.
Curriculum and Instruction-Reading Education…M.Ed., M.S.Ed.

Also, the graduate level certification programs are designed to provide coursework leading to K-12 certification through the Alternative Teacher Certification Program (ATCP) and the Educational Diagnostician certification program.

In determining an applicant’s eligibility for admission to the Department of Curriculum and Instruction, the following are required:

1. A baccalaureate degree from an institution accredited by a regional accrediting agency equivalent to the Southern Association of Colleges and Schools;
2. An overall undergraduate grade point average of 2.75 on a 4.0 scale, or the equivalent;
3. Scores on the Graduate Record Examination (GRE); and
4. Three letters of recommendation.

Students who fail to meet the criteria for regular admission may be placed in a non-degree/special or provisional status. Such students are not entitled to pursue a degree in the Department of Curriculum and Instruction until they receive unconditional admission.

Students who fail to satisfy the admission GPA minimum may not enroll in more than six (6) semester hours of graduate work in any one semester or full summer term while attempting to attain unconditional status. A student may not enroll in more than 12 semester hours while in this category.

Students admitted conditionally (non-degree/special or provisional status) when the GPA is less than 2.75 but no less than 2.45 on a 4.0 scale, may attain unconditional status by achieving a 3.0 GPA for the first 12 hours of graduate work.

Students may apply for conditional admission to graduate study (non-degree/special status) when the GPA is less than 2.45 but a minimum of 2.25. Students may not enroll in more than six (6) semester hours per term and may not enroll in more than 12 semester hours while in this category.

Completion of Entrance Requirements

Students enrolled in non-degree/special or provisional status may take no more than 12 semester hours prior to attainment of unconditional admission, and must attain unconditional status within four school terms from the time of their first enrollment (three regular and one summer semester). If unconditional status has not been attained within that time frame; the student will be dismissed from the program. Provisionally admitted students may withdraw from no more than three courses during their initial probationary status. Unconditional admission will require completion of all university requirements.

Transfer Credit

Either transfer or continuing students may transfer credit from other universities to Prairie View A&M University; however, the grade of “C” will not be accepted for transfer credit. Additional guidelines are indicated below:
1. Transfer students newly admitted may apply up to six hours of graduate credit earned at another accredited institution to their Prairie View A&M University program. Transfer requests should be made during the first semester of registration at Prairie View A&M University and included in the degree plan along with official transcripts. Work taken at other institutions expires at the end of six years from completion, just as work completed at Prairie View A&M University expires.

2. Continuing students may request transfer of up to six hours of credit from other universities to the programs in the Department of Curriculum and Instruction for substitution for Prairie View courses provided:
   a. The official catalog description of the course(s) and official transcripts are provided to the Department of Curriculum and Instruction for review at least two weeks prior to the final registration day of the semester in which the course is to be taken.
   b. The respective Prairie View A&M University advisor and department head, within the Department of Curriculum and Instruction, must approve the courses for transfer credit prior to enrollment.
   c. Subsequent to completion of the course, the student must have the university where the course was taken furnish the Office of Graduate Programs and the department with either an official course grade report or a transcript that reflects the official grade. (Instructor submissions to the Office of Graduate Programs or the Registrar will not suffice.)
   d. The continuing student must remain in good standing in the Department--unconditionally admitted and with a minimum GPA of 3.0.

Removal of Incompletes

A graduate student can receive a grade of “I,” incomplete, in a course with the privilege of finishing the work before the end of one calendar year from the close of the term in which the grade was earned. The “I” should be removed and replaced with a grade acceptable in the student’s degree program if the student is seeking a degree and the “I” is in a course to be counted toward degree completion requirements. If a student does not complete the course requirements within one calendar year, the “I” will change to a grade of “F.”

Academic Performance Standards

Students whose semester GPA for courses leading to the Master’s degree in the Department of Curriculum and Instruction falls below 3.0 for one semester, and whose overall GPA falls below 3.0, will be placed on academic probation for one semester.

Academic Suspension

Academic suspension is an administrative action taken by the Department Head and/or Dean of the College of Education. It bars a student from enrollment in graduate courses for at least one term. Students may request to return to the program in a probationary status through written petition to the Department Head and/or Dean, who will refer the request to a committee of graduate faculty for review and recommendation. Students are limited to one suspension.

Probationary Status

A condition in which a student must maintain at least a 3.0 GPA each semester until his/her cumulative GPA reaches 3.0.

The Two-C Rule

Students who earn more than two grades of “C” or below can be dismissed from the program. This applies to courses repeated and to those taken for the first time.

Advancement to Candidacy

Admission of an applicant for the Master’s degree programs does not constitute advancement to candidacy. Such advancement will be granted upon the completion of at least 12 semester hours of graduate credit with at least a “B” average. The student must submit a formal application for Advancement/Admission to Candidacy to the advisor which must be approved by the Head, Department of Curriculum and Instruction, Dean, College of Education, and Dean, Office of Graduate Studies. Failure to complete the Advancement/Admission to Candidacy form may prevent the student from enrolling in program courses in subsequent semesters.

Admission to Candidacy cannot be granted unless the conditions for admittance have been satisfied and all appropriate test scores have been placed on file in the Department of Curriculum and Instruction. Admission to Candidacy is recommended by the academic advisor, Department Head and Deans of the College and the Graduate School. The Office of Graduate Programs must approve admission to candidacy. The application for admission to candidacy and the application for graduation may not be filed during the same semester. In general, a minimum of 12 hours must be completed before one can be admitted to candidacy.

Degree Plans

All graduate students, after consultation with their assigned advisor, are required to file an official degree plan obtaining the required signatures for submission to the Office of Graduate Studies prior to completion of 12 semester hours of graduate coursework.
Certification

Students seeking certification must meet all requirements listed in the catalog section, “Graduate Certification.” Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Requirements for Educational Diagnostician Certification:

- A Master’s Degree
- A valid Texas Teaching Certificate
- Two years of elementary and secondary teaching experience
- Completion of all required courses on the Deficiency Plan
- Completion of all departmental program requirements
- Passage of the required TExES examination

Master of Science in Education in Curriculum and Instruction

| Common Core                                  |  
|----------------------------------------------|---
| CURR 5003 Theory and Dynamics of Curriculum  | 3  
| and Instruction                             |   
| EDFN 5103 Foundations of Educational Research| 3  
| EDFN 5113 Psychology of Learning and Development| 3  
| EDFN 5123 Socio-Cultural Issues in Education | 3  
| Concentration (select one area from below): 1| 12 |
| English Education                           |   
| Mathematics Education                       |   
| Music Education EC-12                       |   
| Science Education                           |   
| Resource and Research Requirements          |   
| EDFN 5903 Thesis Research                   | 3  
| Electives (Any 5000 level elective; selected in consultation with advisor) | 9  
| Total Hours                                 | 36 |

1 Courses for the respective concentration will be selected in consultation with your advisor.

Master of Education in Curriculum and Instruction

| Common Core                                  |  
|----------------------------------------------|---
| CURR 5003 Theory and Dynamics of Curriculum  | 3  
| and Instruction                             |   
| EDFN 5103 Foundations of Educational Research| 3  
| EDFN 5113 Psychology of Learning and Development| 3  
| EDFN 5123 Socio-Cultural Issues in Education | 3  
| Concentration (select one area from below): 1| 12 |
| English Education                           |   
| Mathematics Education                       |   
| Music Education EC-12                       |   
| Science Education                           |   
| Resource and Research Requirements          |   
| EDFN 5923 Master’s Seminar                  | 3  
| CURR 5133 Principles of Instructional Design| 3  
| CURR 5143 Managing Classroom Interaction    | 3  
| CURR 5503 Curriculum Evaluation             | 3  
| Total Hours                                 | 36 |
Courses for the respective concentration will be selected in consultation with your advisor.

# Master of Education in Curriculum and Instruction-Reading Education Program Requirements

## Major Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURR 5003</td>
<td>Theory and Dynamics of Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 5103</td>
<td>Foundations of Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 5113</td>
<td>Psychology of Learning and Development</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 5123</td>
<td>Socio-Cultural Issues in Education</td>
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</table>

## Reading Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDNG 5613</td>
<td>Teaching Reading in the Elementary Grades</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 5623</td>
<td>Psychology of Reading and Reading Difficulties</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 5633</td>
<td>Teaching Reading in Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 5643</td>
<td>Diagnosis and Correction of Reading Difficulties</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 5663</td>
<td>Clinical Experiences in Reading</td>
<td>3</td>
</tr>
<tr>
<td>RDNG 5673</td>
<td>Issues, Problems and Trends in Reading</td>
<td>3</td>
</tr>
</tbody>
</table>

## Research and Resource

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDFN 5923</td>
<td>Master's Seminar</td>
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</table>

Total Hours: 36

# Master of Science in Education in Curriculum and Instruction - Reading Education Program Requirements

## Major Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
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<td>3</td>
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<td>Foundations of Educational Research</td>
<td>3</td>
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<tr>
<td>EDFN 5113</td>
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</tr>
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<td>EDFN 5123</td>
<td>Socio-Cultural Issues in Education</td>
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## Reading Requirements

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
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<td>RDNG 5643</td>
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<tr>
<td>RDNG 5673</td>
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## Research and Resource

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>EDFN 5903</td>
<td>Thesis Research</td>
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Total Hours: 36

# Master of Education in Special Education

## Major Requirements

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CURR 5003</td>
<td>Theory and Dynamics of Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 5113</td>
<td>Psychology of Learning and Development</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 5123</td>
<td>Socio-Cultural Issues in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 5143</td>
<td>Advanced Educational Statistics</td>
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## Special Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>SPED 5213</td>
<td>Survey of the Exceptional Learner</td>
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</tr>
</tbody>
</table>

Program Concentration - (Select 9 hours from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 5203</td>
<td>Special Education Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SPED 5223</td>
<td>Diverse Learners in Inclusive Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 36
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 5233</td>
<td>Language and Communication Problems</td>
</tr>
<tr>
<td>SPED 5243</td>
<td>Methods for the Exceptional Learner with Multisensory Needs</td>
</tr>
<tr>
<td>SPED 5263</td>
<td>Individual Testing of Exceptional Children</td>
</tr>
<tr>
<td>SPED 5273</td>
<td>Learning Theory</td>
</tr>
<tr>
<td>SPED 5283</td>
<td>Curriculum Adjustment and the Exceptional Child</td>
</tr>
<tr>
<td>SPED 5353</td>
<td>Diagnostic and Prescriptive Techniques for Exceptional Learners</td>
</tr>
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**Research and Resource**

<table>
<thead>
<tr>
<th>Advised Electives</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDFN 5923</td>
<td>Master's Seminar</td>
</tr>
<tr>
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</table>

**Master of Science in Education in Special Education**

**Major Requirements**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
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<tr>
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<td>Theory and Dynamics of Curriculum and Instruction</td>
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</tr>
<tr>
<td>EDFN 5143</td>
<td>Advanced Educational Statistics</td>
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<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 5213</td>
<td>Survey of the Exceptional Learner</td>
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</tbody>
</table>

Program Concentration (Select 9 hours from the following):

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</tr>
</thead>
<tbody>
<tr>
<td>EDFN 5903</td>
<td>Thesis Research</td>
</tr>
<tr>
<td>Total Hours</td>
<td>36</td>
</tr>
</tbody>
</table>

**Honor Societies and Professional Organizations**

The Department of Curriculum and Instruction has the following professional organizations and honor societies.

**Chi Epsilon Alpha (XEA)** is a campus recognized organization designed especially for students who desire to become teachers. XEA focuses on community outreach through teaching and professional development in the educational arena.

**Kappa Delta Pi (KDP)** is an international honor society in education. Membership is by invitation to juniors with a 3.00 grade point average.

**Department of Educational Leadership and Counseling**

**Purpose and Goals**

The purpose of the Department of Educational Leadership and Counseling (ELAC) is to provide quality instruction, research, service and outreach programs that foster knowledge, appreciation and experience in order to prepare graduates to meet the challenges of their educational goals. Through a comprehensive program of graduate courses and practical experiences, students will be prepared as facilitators and professional decision-makers, who can assist all learners in meeting expected learner outcomes. The ELAC department offers programs of study leading to the Master of Arts in Counseling, the Master of Science in Educational Administration, the Master of Education in Educational Administration (on-line degree available), and the Doctor of Philosophy in Educational Leadership.

The ELAC department instructional outcomes are integrated throughout the curricula, which reflect the understanding of the need for transition to an age of information and global economy. The ELAC department instructional goals provide a seamless learning environment that supports individual and group collaboration as the basis for the core curriculum. In addition, the instructional program is designed to provide coursework leading to certificates...
in the following areas: Superintendent, Principal, and School Counselor. Additional information about other certifications is available in the Office of Educator Certification. In the state of Texas, no professional licenses or certificates are granted to convicted felons. Certificates and licenses are awarded by the appropriate state agency following the applicant's completion of all requirements include any applicable examinations.

Admission to Program

Master's Degree

Students desiring admission to the graduate programs in the Department of Educational Leadership and Counseling must meet the general admission requirements outlined in the catalog section, “Graduate Admissions Requirement.” Admission to graduate study, however, does not constitute admission to a master's degree program in the Department of Educational Leadership and Counseling.

In determining an applicant's eligibility for admission to the Department of Educational Leadership and Counseling, the following are essential:

1. A baccalaureate degree from an institution accredited by a regional accrediting agency equivalent to the Southern Association of Colleges and Schools (SACS);
2. An overall undergraduate grade point average of 3.0 on a 4.0 scale, or the equivalent;
3. Scores on the Graduate Record Examination (GRE) on file in the Office of Graduate Studies;
4. A valid state of Texas teaching certificate and proof of two (2) years licensed teaching experience if the student is pursuing the MED concentration, which leads to principal certification.

The PhD Program

Admission Criteria

Admission criteria for the PhD program in Educational Leadership, as established by the program faculty, are as follows:

Required elements: (In order for an applicant to be considered, complete information about the criteria below must be submitted by the admissions deadline.)

1. Baccalaureate degree conferred by a regionally accredited institution.
2. A grade point average (GPA) of 3.0 or higher on a 4.0 scale on all completed undergraduate coursework.
3. Master's degree, prior to entering doctoral coursework, conferred by a regionally accredited institution (Master's degree must include a graduate research methods and graduate statistics course. If not taken, must be completed prior to enrolling in doctoral level research and statistics courses).
4. A grade point average (GPA) of 3.0 or higher on a 4.0 scale on all completed graduate coursework.
5. Original transcripts, submitted to the Office of Graduate Admissions, for all academic work taken at the undergraduate and graduate levels (unofficial copies may be used by the Doctoral Committee in initial screening).
6. Official Graduate Record Examination (GRE) score report, submitted to the Office of Graduate Admissions (an unofficial copy may be used by the Doctoral Committee in initial screening).
7. Three letters of recommendation from persons sufficiently acquainted with the applicant's ability and his/her potential to successfully complete a doctoral program.
8. Original written essay demonstrating strong writing skills that includes the following: autobiography, professional aspirations and achievements, and how obtaining the Ph.D. in Educational Leadership will enhance the applicant's ability to affect change in the educational arena.
9. If a foreign student, submission of official results from the Test of English as a Foreign Language (TOEFL). A score of 600 or higher is required.

Preferences:

1. Teacher certification and a minimum of 3 years teaching experience in K-12 settings.
2. A Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale on all completed undergraduate coursework.
3. Master's degree in Educational Leadership/Administration or a related field.
4. Administrative certification and a minimum of 2 years administrative experience in K-12 settings.
5. A Grade Point Average (GPA) of 3.5 or higher on a 4.0 scale in all completed graduate coursework.
6. Demonstrated evidence of scholarly activity that includes: publications, presentations at conferences and grantsmanship.

Application Process

The PhD Program in Educational Leadership applications deadline for admission is March 1st of each year. All materials must be received by this deadline for consideration.

There are two phases to the PhD in Educational Leadership Program application process. The first phase pertains to materials required for admission to the Office of Graduate Admissions. The second phase includes materials required for admission to the Department of Educational Leadership and Counseling.
To be admitted into the Educational Leadership program, prospective candidates must submit the following documents to the Prairie View A&M University Office of Graduate Admissions:

**Part I – Graduate Studies Application**

The first part of the application process includes the following items:

- The Texas Common Application used for admission can be found at: [https://www.applytexas.org/adappc/commonapp.WBX](https://www.applytexas.org/adappc/commonapp.WBX). After we have downloaded your application, you will receive an email notifying you of receipt of the application. We will contact you again once all materials have been submitted, received, and processed.

- An official transcript from each college or university the applicant has attended, including evidence of a Master’s degree from an accredited institution, should be submitted. The transcripts must bear the official seal of the college or university. The transcripts can be mailed or personally delivered to the Office of Graduate Admissions. Also, all transcripts must be placed in a sealed envelope by the institution (unopened i.e. never opened).

- Official results of the Graduate Record Examination (GRE). The score must be on file in the Office of Graduate Studies prior to the evaluation of your application file. A TOEFL score is required for international students from countries where English is not the first language.

- An non-refundable application fee of $50 is required.

**Part II – Departmental Application**

The second component of the application process is the submission of materials required by the Department of Educational Leadership and Counseling. The department requirements consist of the following:

- A completed departmental application for the Ph.D. in Educational Leadership program.

- An original essay of approximately 500 - 1000 words that describes your background and professional goals including your rationale for pursuing a doctoral degree.

- A current resume or vita should be submitted.

- Three letters of reference/reference forms must be submitted in sealed envelopes with the reference signature written on the outside across the seal. The applicant bears the responsibility of distributing/collecting reference forms and letters, as well as sending them to Graduate Admissions as part of the application packet.

Please submit all admissions materials to:

Attn: Graduate Admissions
Prairie View A&M University
P.O. Box 519; MS 2800
Prairie View, TX 77446

*Please pay special attention to the following information.*

The Ph.D. program in Educational Leadership Applications deadline for admission is March 1st of each year. All materials must be received by this deadline for consideration.

In order to be considered for admission, both the Graduate Studies and departmental applications must be received on or before March 1st to be considered for admission to the fall cycle.

*When your file is complete and your eligibility in meeting the requirements has been determined,* you may be contacted for: (a) participation in an interview with departmental faculty; (b) submission of a professional portfolio; and (c) completion of a writing sample.

**Masters Degree Program Requirements**

Students seeking certification must meet all requirements listed in the teacher certification section of this catalog. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

**Master of Arts in Counseling Program Requirements**

**Common Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNSL 5093</td>
<td>Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CNSL 5123</td>
<td>Assessment Evaluation and Interpretation of Student Data</td>
<td>3</td>
</tr>
<tr>
<td>CNSL 5143</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CNSL 5153</td>
<td>School Counseling in a Multicultural Society</td>
<td>3</td>
</tr>
</tbody>
</table>

**Recommended Program Concentration**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNSL 5013</td>
<td>Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CNSL 5023</td>
<td>Theory and Practice of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNSL 5053</td>
<td>Orientation to Counseling and Development</td>
<td>3</td>
</tr>
</tbody>
</table>
CNSL 5083  Crisis and Trauma Counseling with Children  3
CNSL 5113  Career Development Counseling  3
CNSL 5133  Group Dynamics  3
Research
CNSL 5163  Research and Measurement in Counseling  3
Practicum
Total Hours  36

**Master of Education in Educational Administration Program Requirements**

**Major Requirements**

**Core I**
ADMN 5003  Theoretical Foundations of EC-12 School Administration  3
ADMN 5203  Leadership in a Multicultural Society  3
ADMN 5093  Educational Statistics  3
ADMN 5163  Research and Evaluation in Schools  3

**Core II**
ADMN 5023  Public School Law and Human Resource Management  3
ADMN 5033  School Business Management  3
ADMN 5043  The Role of the Principal  3
ADMN 5053  Management of Special Programs  3
ADMN 5073  School Curriculum and Instructional Leadership  3
ADMN 5113  Planning and Managing Educational Facilities  3
ADMN 5133  School-Community Relations  3

**Internship or Thesis**
ADMN 5503  Mid-Management Internship  3
or EDFN 5903  Thesis Research

Total Hours  36

**Principal Certification**

**Principal - Certification Only**
ADMN 5003  Theoretical Foundations of EC-12 School Administration  3
ADMN 5023  Public School Law and Human Resource Management  3
ADMN 5033  School Business Management  3
ADMN 5043  The Role of the Principal  3
ADMN 5073  School Curriculum and Instructional Leadership  3
ADMN 5503  Mid-Management Internship  3

Total Hours  18

**Superintendent Certification**

Requirements

1. Master’s Degree.

2. Possess a Professional Mid-Management or Professional Principal’s Certification.

3. Three (3) years of experience in Educational Administration.

4. Applicant must apply for their certificate through the Office of Teacher Certification, Delco Bldg., Room 302 before any coursework is taken.

5. Attend a departmental sponsored review session.

6. Achieve a score of 290 or above on Certify Teacher software program.

7. Must pass the representative exam with a score of 90% or greater.
8. Pass TExES Examination # 64 or # 195.

The route to Superintendent certification can be through the Master's level Educational Administration courses or Educational Leadership courses at the doctoral level.

Superintendency Certification with Masters Level

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMN 5013</td>
<td>Educational Administration: Theory, Practice and Research</td>
<td>3</td>
</tr>
<tr>
<td>ADMN 5113</td>
<td>Planning and Managing Educational Facilities</td>
<td>3</td>
</tr>
<tr>
<td>ADMN 5123</td>
<td>School Finance</td>
<td>3</td>
</tr>
<tr>
<td>ADMN 5053</td>
<td>Management of Special Programs</td>
<td>3</td>
</tr>
<tr>
<td>ADMN 5063</td>
<td>Problems in Education Administration</td>
<td>3</td>
</tr>
<tr>
<td>ADMN 5513</td>
<td>Superintendent Internship</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Candidates must apply for their certification through the Office of Teacher Certification, Delco Building, Room # 302, 936-261-3605. Courses must have been taken within the last ten (10) years in order to receive credit toward certification. No grade of “C” will be accepted toward certification.

Doctor of Philosophy in Educational Leadership

Candidates may choose a concentration in one of the following areas: (a) General Administration and Superintendency; (b) Higher Education; or (c) Human Resource Management. Candidates complete designated courses to satisfy the concentration area requirement. Superintendent and Principal certifications are offered at the Master’s degree level. The Ph.D. level courses are not listed as the Texas administrator certification courses. Although Ph.D. graduates are preferred by school districts for many central office administrative positions, Texas does not require a Ph.D. for Superintendent and Principal certifications. The certification courses are Masters level courses. Additionally, applicants for certification must take and successfully pass the TExES # 64 (Superintendent) and/or #68 (Principal) exams.

Please contact the College of Education (http://www.pvamu.edu/education) for information about administrative certification.

PhD in Educational Leadership Program Requirements

Major Requirements

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUL 7103</td>
<td>Educational Research and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7043</td>
<td>Organizational Development and Change in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7053</td>
<td>Diversity in Educational Institutions</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7223</td>
<td>Governance in P-20 Institutions</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7013</td>
<td>Strategic Thinking, Planning and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Research Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDUL 7603</td>
<td>Quantitative Research Design and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7613</td>
<td>Qualitative Research Design and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7633</td>
<td>Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7643</td>
<td>Action Research</td>
<td>3</td>
</tr>
<tr>
<td>or EDUL 7623</td>
<td>Advanced Research</td>
<td>3</td>
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</table>

Dissertation Courses

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDUL 8013</td>
<td>Dissertation Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 800X</td>
<td>Dissertation</td>
<td>12</td>
</tr>
<tr>
<td><strong>Concentration (Select one from below)</strong></td>
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<td><strong>21</strong></td>
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</table>

Total Hours 63

1 See your advisor to ensure you take the course that is appropriate for your concentration.

P-12 Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUL 7213</td>
<td>School Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7303</td>
<td>Public School Finance and Resource Allocation</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7163</td>
<td>Technology Integration and Curricular Applications</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7283</td>
<td>School Curriculum Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>
### Electives (Select 2 courses from below):  
- EDUL 7073: Special Topics  
- EDUL 7173: Data-Driven Decision Making  
- EDUL 7233: School - Community Relations  
- EDUL 7243: Educational Facilities Planning and Management  
- EDUL 7503: Human Resources Administration in Education  
- EDUL 7523: Teacher Supervision, Evaluation and Professional Development

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUL 7083</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7073</td>
<td>Special Topics</td>
<td>6</td>
</tr>
<tr>
<td>EDUL 7173</td>
<td>Data-Driven Decision Making</td>
<td></td>
</tr>
<tr>
<td>EDUL 7233</td>
<td>School - Community Relations</td>
<td></td>
</tr>
<tr>
<td>EDUL 7243</td>
<td>Educational Facilities Planning and Management</td>
<td></td>
</tr>
<tr>
<td>EDUL 7503</td>
<td>Human Resources Administration in Education</td>
<td></td>
</tr>
<tr>
<td>EDUL 7523</td>
<td>Teacher Supervision, Evaluation and Professional Development</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours: 21**

### Higher Education Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUL 7713</td>
<td>Higher Education Finance and Management</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7143</td>
<td>Educational Technology and Organizations</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7703</td>
<td>Higher Education Administration</td>
<td>3</td>
</tr>
<tr>
<td>EDUL 7753</td>
<td>Assessing Higher Education Environments</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives (Select 3 courses from below):  
- EDUL 7743: Higher Education Policy and Analysis **SA, CT**  
- EDUL 7733: Student Recruitment, Selection and Retention **SA, CT**  
- EDUL 7763: Institutional Effectiveness, Assessment and Accreditation **SA, CT**  
- EDUL 7073: Special Topics **SA, CT**  
- EDUL 7083: Internship **SA, CT**  
- EDUL 7723: The Role of Student Affairs in Higher Education **SA**  
- EDUL 7773: College Teaching Theories, Models and Strategies **CT**

**Total Hours: 21**

**SA** - Student Affairs Tract  
**CT** - College Teaching Tract

### Time Limit

Students attending full-time should be able to complete the formal doctoral course work within 2 – 2½ years if they attend during both regular sessions and summer. Students who only enroll full-time during regular semesters require longer than two full years. Each student will be given seven (7) years to complete the doctoral program. Students who earn two “C’s” may be dismissed from the doctoral program.

Note: See Program Handbook for Additional Information.

### Department of Health and Kinesiology

#### Purpose and Goals

The Department of Health and Kinesiology educates students to focus on active living and healthy lifestyles, while preparing students for professional careers, to be morally responsible leaders who think critically, act wisely, and work skillfully to advance various career paths associated with the fields of health and physical education.

#### Mission Statement

The mission of the Department of Health and Kinesiology is:

1. To provide students with a well-defined exercise program and planned experiences that will result in knowledge about the value of physical activities, essential motor skill development, stamina, strength and those social qualities that will last a lifetime.
2. To provide a broad base of knowledge which will enable a student to specialize or adapt to a variety of career opportunities which include: preparation for teaching and/or coaching at the elementary or secondary levels; preparation for graduate study that leads to productive professionals in health, health promotion, human performance and/or allied health therapeutic sciences; preparation for athletic training; preparation for recreational and/or community service programs; and preparation for professional health and wellness activities at the local, state and national levels by providing a challenging and innovative academic environment.

#### Program Purpose

The department is uniquely situated to ensure that candidates understand and practice healthy lifestyles in Water Safety Instruction, Athletic Training and Community Health in order to effectively deliver service to underserved communities. All university candidates are recommended to participate in
courses offered by the Department of Health and Kinesiology. Candidates are exposed to rigorous programs focusing on improving overall quality of life. The learning environment is structured to provide a solid foundation for research in rural, urban, and suburban issues affecting health, wellness, and physical fitness. In addition, the program offers health and fitness activity classes to every Prairie View A&M student for physical activity participation opportunities.

**Academic Standards and Academic Progress**

**Program Admittance**

Students choosing to enroll within the Health and Kinesiology Department, as a major and/or a minor, must submit a current Criminal History Background Check, a current transcript indicating a 2.25 cumulative GPA, a career statement, a resume, and complete a Pre-test within the intended program area of study. Department Head approval for program admittance will not occur unless these four areas have been successfully met. Students majoring in Health or Kinesiology must meet all University and College of Education standards. Additionally, students must also complete all English Composition, Mathematics, and minor course work outside of the University Core, to be counted towards the 120 SCH degree, with a grade of “C” or better.

**Requirements of Uniform Apparel**

Students enrolled in activity classes are required to purchase and to wear special physical education uniforms in compliance with departmental standards. Regulation gymnasium shoes are also required. Students enrolled in swimming must wear swimming suits and swimming caps recommended by the department. All required apparel is available for purchase in the University Exchange Bookstore.

**Bachelor of Science in Health and Kinesiology Program Requirements**

The Department of Health and Kinesiology offers two undergraduate degrees (Health or Kinesiology). Our students have three options to pursue while obtaining their degrees. The options are: 1) select a minor in a different area, 2) Professional Non-Restrictive electives and 3) teaching certification. Students who have selected the teacher certification option must meet the following requirements to apply: minimum GPA of 2.5, “C” or higher in all English core courses, 44 SCH in the University Core must be completed before taking CUIN courses, successful criminal background check, and successfully complete their assessment test.

All students accepted into the program for teacher certification must meet the College of Education's Teacher Certification requirements. The College of Education's Office of Teacher Certification manages all records of students accepted into the teacher certification program. The Office of Teacher Certification has the TEA's students identification, reference letters, criminal background verification, assessment scores, field observation, student teaching results, passed or failed records and much more. The Department of Health and Kinesiology has files on all students who are enrolled in our department as it pertains to their degree plans and graduation audits.

**Bachelor of Science in Health Degree Program Requirements**

<table>
<thead>
<tr>
<th>University Core</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Major</strong></td>
<td>58</td>
</tr>
<tr>
<td>(Select 58 SCH out of the 68 SCH listed below):</td>
<td></td>
</tr>
<tr>
<td>HLTH 1023</td>
<td>Human Sexuality</td>
</tr>
<tr>
<td>HLTH 1063</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>HLTH 2003</td>
<td>Personal Health and Wellness</td>
</tr>
<tr>
<td>HLTH 2023</td>
<td>Communicable and Noncommunicable Diseases</td>
</tr>
<tr>
<td>HLTH 2033</td>
<td>Aging, Death and Dying</td>
</tr>
<tr>
<td>HLTH 3003</td>
<td>Health Education for the Elementary School</td>
</tr>
<tr>
<td>HLTH 3013</td>
<td>Nutrition</td>
</tr>
<tr>
<td>HLTH 3033</td>
<td>Research and Contemporary Issues in Health</td>
</tr>
<tr>
<td>HLTH 3043</td>
<td>Consumer Health</td>
</tr>
<tr>
<td>HLTH 3053</td>
<td>Public and Community Health</td>
</tr>
<tr>
<td>HLTH 3093</td>
<td>Drugs and Health</td>
</tr>
<tr>
<td>HLTH 4063</td>
<td>Health and Communities</td>
</tr>
<tr>
<td>HLTH 4073</td>
<td>Community Health Planning and Assessment</td>
</tr>
<tr>
<td>HLTH 4083</td>
<td>Problem Solving and Evaluation for Community Health Programs</td>
</tr>
<tr>
<td>KINE 1131</td>
<td>Physical Fitness</td>
</tr>
<tr>
<td>KINE 1211</td>
<td>Aerobic Activities</td>
</tr>
<tr>
<td>KINE 2023</td>
<td>First Aid, Safety and CPR</td>
</tr>
<tr>
<td>KINE 3033</td>
<td>Movement Activities for Elementary Children</td>
</tr>
<tr>
<td>KINE 4033</td>
<td>Measurement and Evaluation</td>
</tr>
</tbody>
</table>
### Other Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
</table>
| BIOL 1054 (1)
| BIOL 1064 (1)  |

### Concentration (Select one from below)

**Without Teacher Certification**

18 hours of Electives

**With Teacher Certification**

- CUIN 3003 Educational Foundations
- CUIN 3013 Educational Psychology
- CUIN 4103 Instructional Planning and Assessment
- CUIN 4113 Instructional Methodology and Classroom Management
- CUIN 4403 Student Teaching/Elementary I
- CUIN 4813 Student Teaching Secondary - All Level

**Total Hours** 120

1 Health majors should take BIOL 1054 and BIOL 1064 to satisfy the Life and Physical Sciences requirement for the "University Core" and the "Other Requirements". A grade of "D" is acceptable in these courses.

### Bachelor of Science in Kinesiology Program Requirements

#### University Core

42

#### Kinesiology Major

(Select 58 SCH out of the 66 SCH list below):

- KINE 1012 Sports Skills I
- KINE 1081 Golf I
- KINE 1082 Fundamentals of Basic Movement
- KINE 1112 Sports Skills II
- KINE 1151 Low Organized Games
- KINE 1303 Foundation to Kinesiology
- KINE 2043 Coaching Individual and Dual Sports
- KINE 2052 Theory and Practice of Intramural Sports
- KINE 2063 Outdoor Performance Activities
- KINE 3023 Applied Anatomy and Kinesiology
- KINE 3033 Movement Activities for Elementary Children
- KINE 3053 Theory and Practice of Officiating
- KINE 3063 Theory and Practice of Coaching
- KINE 3653 Motor Learning and Control
- KINE 4033 Measurement and Evaluation
- KINE 4042 Athletic Injuries and CPR
- KINE 4053 Special Topics in Health and Kinesiology
- KINE 4062 Correctives
- KINE 4073 Secondary Kinesiology
- KINE 4083 Administrative Management of Kinesiology
- KINE 4196 Internship in Health and Kinesiology
- KINE 4232 Advanced Athletic Injuries
- KINE 4233 Fitness Program
- DANC 2022 Fundamentals of Dance
- HLTH 2003 Personal Health and Wellness

#### Other Requirements

2

- BIOL 1054 (1)  

---

1 Health majors should take BIOL 1054 and BIOL 1064 to satisfy the Life and Physical Sciences requirement for the "University Core" and the "Other Requirements". A grade of "D" is acceptable in these courses.
Concentration (Select one from below)  

**Without Teacher Certification**  
18 hours of Non-Restricted Electives

**With Teacher Certification**  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUIN 3003</td>
<td>Educational Foundations</td>
</tr>
<tr>
<td>CUIN 3013</td>
<td>Educational Psychology</td>
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<td>CUIN 4003</td>
<td>Instructional Planning and Assessment</td>
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<tr>
<td>CUIN 4013</td>
<td>Instructional Methods and Classroom Management</td>
</tr>
<tr>
<td>CUIN 4403</td>
<td>Student Teaching/Elementary I</td>
</tr>
<tr>
<td>CUIN 4813</td>
<td>Student Teaching Secondary - All Level</td>
</tr>
</tbody>
</table>

Total Hours: 120

Kinesiology majors should take BIOL 1054 and BIOL 1064 to satisfy the Life and Physical Sciences requirement for the "University Core" and the "Other Requirements". A grade of "D" is acceptable in these courses.

**Minors**

**Health Minor**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 2003</td>
<td>Personal Health and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2023</td>
<td>Communicable and Noncommunicable Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3013</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3043</td>
<td>Consumer Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 4063</td>
<td>Health and Communities</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 4073</td>
<td>Community Health Planning and Assessment</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 18

**Dance Minor**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 1031</td>
<td>Modern Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DANC 1041</td>
<td>Folk and Ballroom Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DANC 1051</td>
<td>Tap Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DANC 1171</td>
<td>Modern Jazz I</td>
<td>1</td>
</tr>
<tr>
<td>DANC 1191</td>
<td>Ballet I</td>
<td>1</td>
</tr>
<tr>
<td>DANC 1261</td>
<td>Body Mechanics and Rhythmic Activities</td>
<td>1</td>
</tr>
<tr>
<td>DRAM 1323</td>
<td>Stage Movement</td>
<td>3</td>
</tr>
<tr>
<td>DANC 2011</td>
<td>Modern Dance II</td>
<td>1</td>
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<tr>
<td>DANC 2022</td>
<td>Fundamentals of Dance</td>
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</tr>
<tr>
<td>DANC 2071</td>
<td>Modern Jazz II</td>
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<td>DANC 2151</td>
<td>Ballet II</td>
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<td>DANC 4022</td>
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<tr>
<td>DANC 4032</td>
<td>Performance</td>
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</table>

Total Hours: 18

**Internship/Practicum in Health and Kinesiology**

- The internship is an integral part of the instructional program in the Health, Physical Education, and Community Health curriculum. The experience is designed to enhance the understanding and application of knowledge and research findings to public health and wellness or physical fitness settings by providing an (EC-12)
- Professional (non-teacher track)

**Student Outcomes**

All degrees within the Department of Health and Kinesiology prepare students for various professional preparations in accordance with each degree’s curriculum. The Department offers candidates the opportunity to gain practical experience, at an appropriate level and content, in the Community/Public Health field. All students in Health and Kinesiology can obtain certifications in four areas to further career aspirations. Even though these outcomes are not required for degree completion, they are highly encouraged for each candidate to effectively compete in the current job market.
1. Bachelor of Science in Kinesiology: EC-12 Physical Education/Community Focus area Teacher Certification - Courses are aligned with NASPE/NCATE and TExES Standards in preparation for becoming an EC-12 Physical Education teacher.
2. Bachelor of Science in Kinesiology: Professional (non-teacher track) - Courses are aligned with ACE Standards in preparation for the Personal Training Certification Exam.
3. Bachelor of Science in Health: EC-12 Health Education Teacher Certification - Courses are aligned with AAHE/NCATE and TExES Standards in preparation for becoming an EC-12 Health Education teacher.
4. Bachelor of Science in Health: Professional (non-teacher track) - Courses are aligned with NCHEC Standards in preparation for the Certified Health Education Specialist (CHES) Exam.

Purpose and Goals

The programs in the Department of Health and Kinesiology are designed to meet the professional needs and interests of students who wish to pursue a Master of Science or a Master of Education, with a major in Health or Physical Education. The graduate programs are designed for those students with special interests in the areas of Health and Physical Education.

The Master’s degree in Physical Education is primarily for teachers, coaches, and school administrators. The curriculum prepares students for advanced teaching and/or administrative endeavors at the elementary or secondary levels.

The Master’s degree in Health is primarily for those students who are interested in school health education or working in various health care settings such as hospitals, public and private health and education agencies, or health promotion programs. An internship is required.

Master of Science and Master of Education Degree Programs

Students seeking certification must meet all requirements listed in the teacher certification section of this catalog. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Degree Requirements for Applicants without a Baccalaureate Degree in Health and/or Physical Education

Professional students who seek admission to the master’s program must meet the same prerequisite and degree requirements as baccalaureate degree students. Students are expected to complete the prerequisite curriculum within two years of the initial admission date.

Two “C” Rule

Please Note: Continual matriculation at PVAMU requires that no more than two C’s shall be earned in a graduate degree program. A student, who earned more than two C’s, will be automatic dismissed from the graduate program.

NOTE: No grade of “C” or below will be accepted toward certification.

Internship/Practicum in Health and Kinesiology

The internship is an integral part of the instructional program in the Health/Physical Education/Community Health curriculum. The experience is designed to enhance the understanding and application of knowledge and research findings to public health and wellness or physical fitness settings by providing an opportunity to gain practical experience, at an appropriate level and content, in the Health/Physical Education/Community Health curriculum. All students in the Health and Physical Education/Community Health focus area are required to complete a minimum of two hundred hours of an internship/practicum experience. Further information regarding the internship/practicum will be provided upon matriculation by the Department of Health and Kinesiology.

Thesis

For the capstone of their educational experience, students in the department are expected to conduct an original piece of publishable research and/or contribute to the knowledge base of behavioral sciences and health education. Thesis are written under the supervision of individual faculty members in the department. Research topics and support for studies are provided by health agencies and organizations in the area.

Master of Science (M.S) in Physical Education

Common Core For Each of the Four Graduate Degrees

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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</tr>
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<td>EDFN 5123</td>
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Program Concentration

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<tr>
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<tbody>
<tr>
<td>PHED 5123</td>
<td>Scientific Foundations of Physical Education</td>
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## Masters of Education (M.Ed.) in Physical Education

### Common Core
- **PHED 5133** Physical Education Curriculum
- **EDFN 5103** Foundations of Educational Research
- **EDFN 5113** Psychology of Learning and Development
- **EDFN 5123** Socio-Cultural Issues in Education

### Program Concentration
- **PHED 5123** Scientific Foundations of Physical Education
- **PHED 5143** Sociol Of Sport
- **PHED 5303** Research Methods
- **PHED 5503** Teaching Physical Education

### Research and Resource
- **EDFN 5923** Master's Seminar

Select three of the following:
- **PHED 5103** Psychology of Motor Learning
- **PHED 5113** Supervision in Physical Education
- **PHED 5203** Physiology of Muscular Exercises
- **PHED 5343** Professional Preparation in Health, Physical Education, Recreation, and Dance
- **PHED 5353** Mainstreaming in Health, Physical Education, Recreation, and Dance
- **HLTH 5043** Alcohol and Drugs
- **HLTH 5073** Epidemiology and Diseases
- **HLTH 5133** Seminar- Selected Topics
- **HLTH 5143** Medical Foundations for Health Professions
- **HLTH 5183** Contemporary Health

**Total Hours**: 36

## Master of Science (M.S.) in Health

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<td>HLTH 5173</td>
<td>Nutrition and the Environment</td>
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<td>or HLTH 5993</td>
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**Masters of Education (M.Ed.) in Health**

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Total Hours 36

1 Requires Department Administration Approval
Professional and Service Organizations

Panther Association for Health, Physical Education, Recreation and Dance (PAHPERD) is open to all majors and minors in the department. A grade point average of 2.0 or higher is required for membership. All Health and Kinesiology majors are expected to participate in PAHPERD.

Texas Association For Health, Physical Education, Recreation and Dance (TAHPERD) is the professional organization for the State of Texas which supports the fields of Health, Human Performance, and Dance.

American Alliance For Health, Physical Education Recreation, and Dance (AAHPERD) is an educational organization at the national level that is structured for the purposes of supporting, encouraging, and providing assistance to member groups and their personnel throughout the nation as they seek to initiate, develop, and conduct programs in health, leisure, and movement-related activities for the enrichment of human life.

National Association of Sport and Physical Education (NASPE) is a division of AAHPERD which controls the quality of Physical Education and Sport by enhancing knowledge, improving professional practice, and increasing support for high quality physical education, sport, and physical activity programs.

American Association of Health Educators (AAHE) is a division of AAHPERD which controls the quality of Health Education programs by advancing the profession by serving health educators and others who strive to promote the health of all people through education and other systematic strategies.

The American College of Sports Medicine (ACSM) is the driving professional organization in the Sports Sciences. ACSM promotes and integrates scientific research, education, and practical applications of sports medicine and exercise science to maintain and enhance physical performance, fitness, health, and quality of life.

The National Commission for Health Education Credentialing (NCHEC) strives to enhance the professional practice of Health Education by promoting and sustaining a credentialed body of Health Education Specialists. To meet this mission, NCHEC certifies health education specialists, promotes professional development, and strengthens professional preparation and practice.

The American Council on Exercise (ACE) is a nonprofit organization committed to enriching quality of life through safe and effective exercise and physical activity. As America’s authority on fitness, ACE protects all segments of society against ineffective fitness products, programs and trends through its ongoing public education, outreach and research. ACE further protects the public by setting certification and continuing education standards for fitness professionals.

Eta Sigma Gamma (ESG) is the Health Honorary organization for men and women who are in the field of Health or Health Education. The mission of the organization is promotion of the discipline by elevating the standards, ideals, competence and ethics of professionally prepared men and women in Health Education. The objectives of the PV Chapter of Eta Sigma Gamma are 1) Epsilon Epsilon to provide the opportunity to become acquainted with and enjoy the fellowship of students and faculty whose professional interests are dedicated to the Health Education discipline; 2) to keep the members informed of recent trends in Health Education; 3) to promote professional growth and leadership; 4) to encourage outstanding people to enter the Health Education field; 5) to evaluate professional standards and ethics of the discipline; 6) to stimulate and recognize research, service, and academic achievement within the membership; and 7) to assist in the professional preparation of Health Education students and faculty at PVAMU. To be eligible for membership, applicants must be either an undergraduate or graduate student with a GPA of 2.75 or higher and have a major or minor in Health or Health Education.

Emeriti/Emerita

Presidents Emeriti
Alvin I. Thomas, Ph.D., 1966-1982
Charles A. Hines, Ph.D., 1994–2002

Provost Emerita
E. Joahanne Thomas-Smith, Ed.D
Provost Emerita

Faculty and Staff Emeritus
Edward W. Martin, Ph.D., Professor and Dean Emeritus
Brailsford College of Arts and Sciences

Benny L. Lockett, Associate
Administrator Emeritus, Cooperative Extension Program

Marion Henry, Ph.D.
University Marshall Emeritus
University Courses

Accounting (ACCT)

Courses

ACCT 2110 Financial Accounting Laboratory: 0 semester hours.
Practical applications of financial accounting concepts and tools; problem solving exercises.
Co-requisite: ACCT 2113.

ACCT 2113 Financial Accounting: 3 semester hours.
An introduction to the communication of relevant financial information to investors, creditors, and analysts with an emphasis on the accounting information cycle and the preparation of the three major financial statements: the balance sheet, the statement of income and retained earnings, and the statement of cash flows.

ACCT 2123 Managerial Accounting: 3 semester hours.
Instruction in the managerial decision-making functions using accounting information. Review of internal accounting information systems for planning, monitoring, and decision making with an emphasis on manufacturing cost, budgeting, product pricing, and CVP relationships.
Prerequisites: ACCT 2113.

ACCT 3213 Intermediate Accounting I: 3 semester hours.
The study of accounting principles and the preparation of financial statements with an emphasis on accounting theory, current and non-current assets, revenues and expenses and the time value of money.
Prerequisites: ACCT 2123.

ACCT 3223 Intermediate Accounting II: 3 semester hours.
A continuation of ACCT 3213 with an emphasis on accounting principles and financial statement preparation in the areas: investments, current and long-term liabilities, stockholders' equity, income taxes, leases, accounting changes, pensions, cash flow statements, earnings per share, and financial statement analysis.
Prerequisites: ACCT 3213.

ACCT 3243 Ethics for Accountants: 3 semester hours.
A study of the legal, regulatory and ethical issues of business with special emphasis pertaining to accounting.
Prerequisites: ACCT 2123.

ACCT 3313 Cost Accounting: 3 semester hours.
The fundamental costs of a manufacturing concern such as raw materials, labor cost, and overhead and the preparation of internal reports for managerial decisions in the areas: planning, control and budgets.
Prerequisites: ACCT 2123.

ACCT 3333 Federal Income Tax I: 3 semester hours.
An introduction to the theory and fundamentals of federal income tax as applied to individuals, with an emphasis on individuals involved in business activities or organizations. Includes an introduction to tax research and professional communication of results.
Prerequisites: ACCT 2123.

ACCT 3343 Federal Income Tax II: 3 semester hours.
Covers federal income tax codes as they apply to proprietorships, partnerships and corporations. Also includes tax research.
Prerequisites: ACCT 3333.

ACCT 3393 Accounting Internship I: 3 semester hours.
Supervised full-time, off-campus training at accounting firms, private and public business organizations, governmental agencies, and not-for-profit organizations that requires individual conferences with a faculty member, performance evaluations from the work place, and written reports. The duration of the program will be one regular semester or two consecutive summer terms.
Prerequisites: ACCT 3213.

ACCT 3493 Accounting Internship II: 3 semester hours.
Supervised full-time, off-campus training at accounting firms, private and public business organizations, governmental agencies, and not-for-profit organizations that requires individual conferences with a faculty member, performance evaluations from the work place, and written reports. The duration of the program is one regular semester or two consecutive summer terms.
Prerequisites: ACCT 3213 and ACCT 3313.

ACCT 4133 International Accounting: 3 semester hours.
The course is designed to facilitate an understanding of the fundamental principles and practices of international accounting; includes an analysis of how different social, political, and economic backgrounds influence and interact with accounting, reporting and evaluation processes.
Prerequisites: ACCT 3213.
ACCT 4213 Advanced Accounting: 3 semester hours.
Study of accounting standards and procedures relative to business combinations, consolidated financial statements, foreign currency transactions, translation of foreign entity statements, segment and interim reporting, SEC reporting, and partnership operations.
Prerequisites: ACCT 3223.

ACCT 4223 Auditing: 3 semester hours.
The study of auditing concepts and procedures in the areas: auditing standards, internal control, professional ethics and responsibilities, audit evidence, audit documentation, and audit reports.
Prerequisites: ACCT 3223.

ACCT 4253 Oil & Gas Accounting: 3 semester hours.
An introduction to oil and gas accounting with emphasis on accounting for costs incurred in the acquisition, exploration, development, and production of oil and natural gas using full cost accounting methods; also covers joint interest accounting, gas pipeline accounting, required disclosures for oil and gas activities, and analysis of oil and gas companies; financial statements.
Prerequisites: ACCT 3213.

ACCT 4313 Accounting Information Systems: 3 semester hours.
Study of overall data flow systems emphasizing financial data and computerized systems of accounting. Covers flow and logic concepts and development of meaningful control concepts and data reporting techniques.
Prerequisites: ACCT 2123 and MISY 2013.

ACCT 4323 Fund Accounting: 3 semester hours.
Features of budgetary and fund accounting as applied to not-for-profit organizations such as colleges, universities and governmental units.
Prerequisites: ACCT 3223.

ACCT 4343 Financial Statement Analysis: 3 semester hours.
A study of financial statements in a variety of firm valuation contexts. The course provides various tools for evaluating a firm's accounting and financial performance, the concept of earnings quality, and other related issues.
Prerequisites: (ACCT 3213 and FINA 3103).

ACCT 4993 Independent Study: 3 semester hours.
Reading, research, and/or field work on selected topics. Prerequisite: Junior/senior classification and consent of instructor and department head.

ACCT 5003 Concepts of Accounting: 3 semester hours.
The review of basic accounting concepts and principles with an emphasis on the accounting cycle, financial statement preparation, and their applications in making managerial decisions in the areas of cost-volume-profit analysis, inventory management, and comparative cost allocation systems.

ACCT 5103 Managerial Accounting: 3 semester hours.
The interpretation and use of accounting data for management purposes in the areas of cost accounting, budgets, standards, production costing, distribution costing, and special analyses.

ACCT 5113 Advanced Auditing: 3 semester hours.
An advanced study of the practices and principles that guide the auditing environment. Specialty topics will be introduced as well as current readings in auditing literature.
Prerequisites: ACCT 4223.

ACCT 5123 Accounting Information Systems & Controls: 3 semester hours.
A study of the analysis, design, installation, and operations of an accounting information system. Emphasis will be placed on system design and acquisition.
Prerequisites: ACCT 5003.

ACCT 5133 Accounting for Managerial Decision Making: 3 semester hours.
A study of the preparation of internal reports for decision making, planning and control. Additional areas of study include cost determination, budgeting, and quantitative techniques.
Prerequisites: ACCT 5003.

ACCT 5143 Accounting Theory: 3 semester hours.
Development of the theory of accounting with particular emphasis on concepts, income measurement, valuation of assets, valuation and measurement of equities, and the application of accounting theory to contemporary problems.
Prerequisites: ACCT 3213.

ACCT 5153 Seminar on Tax Consulting, Planning and Research: 3 semester hours.
A study of current U.S. tax law with emphasis on the interrelationships between taxation and business and personal financial planning. Tax research, planning, and professional communications are significant components.
Prerequisites: ACCT 3333.

ACCT 5163 Law & Ethics for Accountants: 3 semester hours.
Regulatory, and ethical issues of business. Special emphasis will be placed on issues pertaining to accounting.
Prerequisites: ACCT 5003.
ACCT 5243 International Accounting: 3 semester hours.
Fundamentals, principles and practices of international accounting with emphasis on social, political and economic backgrounds that influence and
interact with accounting, reporting and evaluation processes.
Prerequisites: ACCT 5103 or ACCT 5133.

ACCT 5533 Special Topics in Accounting: 3 semester hours.
The course provides a forum to bring in current issues in the accounting area. Topics may vary from semester to semester. Course can be repeated for
credit for max of two times.
Prerequisites: ACCT 5103 or ACCT 5133.

ACCT 5993 Independent Study in Accounting: 3 semester hours.
Supervised readings, research and/or field work on selected topics in accounting. Prerequisites: Consent of instructor and approval by the Department
Head.

Accounting for Executives (EACC)

Courses
EACC 5213 Accounting for Executives: 3 semester hours.
Managerial accounting within a global environment; covers advanced accounting tools, concepts, and techniques for decision making in a global
environment.

Ag and Human Resources (AGHR)

Courses
AGHR 1303 Land Grant System & Food Secur: 3 semester hours.
This course is designed to educate students about the land grant mission, created by the Morrill Act passed by Congress in 1862 and 1890. Areas
related to science technology in Global Food Security and Sustainable Food program will be emphasized. Students will actively participate in peer
workshops to demonstrate critical thinking skills gained through programs.

AGHR 1313 Agricultural Science and Technology: 3 semester hours.
Introduction to professions in agricultural sciences and technology. Importance of agriculture in the state, nation and world. Review of research
developments; explorations of career and other opportunities and development of human resource skills needed in agriculture.

AGHR 3323 Program Planning: 3 semester hours.
The application of strategies appropriate for delivering agriculture and human resource concepts to varied audiences. This includes the use of media,
materials and supplies; procedures for management, motivation and evaluation.
Prerequisites: AGHR 1313.

AGHR 3793 Cooperative Occupational Experience in Agriculture: 3 semester hours.
Pre-baccalaureate work experience in the food and agriculture sciences commensurate with the student's academic emphasis. Written report of
activities consistent with program guidelines upon completion of experience. A minimum of 100 clock hours of supervised work activities is required.

AGHR 3996 Cooperative Occupational Experience in Agriculture: 6 semester hours.
Pre-baccalaureate work experience in the food and agricultural sciences commensurate with the student's academic emphasis. Written report of
activities consistent with program guidelines upon completion of experience. A minimum of 200 clock hours of supervised work activities are required.

AGHR 4413 Special Topics: 3 semester hours.
Study of a problem affecting some aspect of the food and agricultural science industry. Reports, discussion and major paper required. Repeatable for up
to 6 semester credit hours.

AGHR 4992 Independent Study: 2 semester hours.
Readings, research and/or field work on selected topics. Prerequisite: Advisor consent.

AGHR 4993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics. Prerequisite: Advisor consent.

AGHR 5303 Research: 3 semester hours.
Conduct data collection, manuscript preparation, and presentation of research. Registration with permission of the graduate advisor/research chair.
Student may enroll in this course twice for a total of 6 semester credit hours.

AGHR 5323 Workshop in Food and Agricultural Sciences: 3 semester hours.
Study of selected problems and issues in the food and agricultural sciences with emphasis on teacher and/or extension education programs. Analysis of
contemporary educational needs. Selection and organization of course/program content, criteria and procedures for evaluation.

AGHR 5333 Administration and Supervision of Agriculture and Human Resources: 3 semester hours.
Development, organization, administration, and supervision of vocational agricultural education at the local, state, and national levels.
AGHR 5343 Youth Leadership Development: 3 semester hours.  
Procedures of organizing and conducting agricultural programs and activities for developing leadership skills in youth.

AGHR 5353 Technological Change: 3 semester hours.  
A study of advanced technological changes affecting the food and agricultural economy. Cultural and socioeconomic forces retarding and/or accelerating change. Processes of planning and implementing change.

AGHR 5373 Seminar: 3 semester hours.  
Study of current legislative and research developments in the food and agricultural sciences. Readings, discussions and written reports focusing on application of developments in professional practice.

AGHR 5813 Vocational Guidance and Counseling: 3 semester hours.  
Study of educational and occupational opportunities to assist youth in making career choices. Special attention is given to rural and limited resource youth. Techniques of individual and group counseling.

AGHR 5823 Special Topics in the Food and Agricultural Sciences: 3 semester hours.  
Directed individual study of a problem affecting some aspect of the food and agricultural sciences. Special work in an identified area of special interest. Reports, discussion, and major paper required.

AGHR 5833 Organization and Administration of Agricultural Extension Programs: 3 semester hours.  
Study of extension programming in agriculture and human sciences. Principles of developing objectives and program planning; coordination and procedures of teaching and evaluating. One week observation with a County Extension Agent required.

AGHR 5991 Independent Study: 1 semester hour.  
Readings, research, and/or field placement focusing on pre-selected issues in the food and agricultural sciences.

AGHR 5992 Independent Study: 2 semester hours.  
Readings, research, and/or field placement focusing on pre-selected issues in the food and agricultural sciences.

AGHR 5993 Independent Study: 3 semester hours.  
Readings, research, and/or field placement focusing on pre-selected issues in the food and agricultural sciences.

Agricultural Economics (AGEC)

Courses

AGEC 1233 Fundamentals of Agricultural Economics: 3 semester hours.  
Survey of the nature, organization, and operation of the agricultural industry; application of economic principles to production and to the marketing of farm-ranch food and fiber products; and investigation of institutions and government as they affect agriculture.

AGEC 2213 Marketing Agricultural Products: 3 semester hours.  
Study of movement of food and fiber products from the production area to the final consumer. Focus on intermediaries, including transportation agents. Efficiency of performing marketing activities under conditions for perfect and imperfect markets will be emphasized. Prerequisites: AGEC 1233 and AGEC 2223 (may be taken concurrently).

AGEC 2223 Food Distribution Systems: 3 semester hours.  
Study of the nature and functions of the various components of wholesale and retail food distribution. Facility locations, transportation, warehousing, quality control, inventory control, pricing, and other related topics. Prerequisites: AGEC 1233 and AGEC 2223 (may be taken concurrently).

AGEC 3203 World Food Seminar: 3 semester hours.  
Orientation and introduction to domestic and international food distribution employment opportunities. (Emphasis on providing a broader knowledge of careers in transportation, logistics, and distribution.) Prerequisites: AGEC 2213 and AGEC 2223 and ECON 2113.

AGEC 3213 Agricultural Policy: 3 semester hours.  
Study of the development of agricultural and food policies and evaluation of policies impact on producers and consumers in domestic and international markets. Prerequisites: AGEC 2213 and AGEC 1213 and AGEC 3223 (may be taken concurrently).

AGEC 3223 Agricultural Financial Analysis: 3 semester hours.  
Introduction to principles and concepts of finance. Financial statement analysis, risk and returns, time value of money, valuation concepts, capital budgeting, investments, and cost of capital. Prerequisites: AGEC 2113 or ECON 2213 and MATH 1113 and AGEC 3213 (may be taken concurrently).

AGEC 3233 Principles of Transportation: 3 semester hours.  
A course designed to develop basic competencies in the acquisition of transportation services for food and agricultural products. Emphasis will include: selection of transportation services, legal modes of transportation, shipping documents, rates, claims, and the changing environments for the transportation industry. Prerequisites: AGEC 2213 or ECON 2113 and MATH 1113.
AGEC 3253 International Trade and Logistics: 3 semester hours.
Development of basic competencies in international marketing of food and agricultural products. Focus will be on major markets, international
competition, and the impacts of US trade policies and exchange rates on trade.
Prerequisites: AGEC 1233 or ECON 2113 and MATH 1113.

AGEC 3993 Independent Study: 3 semester hours.
Reading, research and/or field work on selected topics.

AGEC 4223 Principles of Agri-business Management: 3 semester hours.
Economic and business principles applied to the organization and operation of farms and ranches, and other agri-business industries.
Prerequisites: AGEC 1233 or ECON 2113 and MATH 1113.

AGEC 4233 Land and Resource Economics: 3 semester hours.
Analysis of the economic, political, and institutional forces involved in the control and use of land and natural resources. Emphasis on land as a factor
of production in agriculture.
Prerequisites: AGEC 1233 or ECON 2113 and MATH 1113.

AGEC 4253 Agricultural Prices: 3 semester hours.
Theories and principles fundamental to the pricing of agriculture commodities. Special emphasis will be placed on marketing conditions affecting price
levels. Price and income parity, seasonal and cyclical price variations and futures trading. Prerequisites: senior classification or approval of instructor.
Prerequisites: AGEC 1233 or ECON 2113 and MATH 1113.

AGEC 4993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

AGEC 5213 Land Use and Resource Management: 3 semester hours.
Nature and the economic dimensions of private and public control of land. Use of natural resources, including land, stock and flow resource concepts;
time and space as they affect resource utilization and benefits. Laboratory studies of field problems in resource management and use.

AGEC 5223 Farm and Ranch Management: 3 semester hours.
Theories of the farm and of the management process; farm-ranch business growth and productive efficiency; control and coordination of the agents
of production; risk and uncertainty; agribusiness organization and management; and managerial decision making. Laboratory application of principles
of economics to the production process, including analysis of costs, returns, and productivity.

AGEC 5233 Price Analysis: 3 semester hours.
Theories and principles fundamental to pricing of agricultural factors of production and agricultural commodities; relationship of prices within the
agricultural sector and between the agricultural sector and the general economy; kinds of price changes; forecasting factors and conditions that affect
agricultural prices; futures trading; parity prices; and administrated prices.

AGEC 5243 Agricultural Policy: 3 semester hours.
Theoretical foundations of policy making and economic value of public policies and programs to the agricultural industry; interrelation between the social,
political, and economic systems and agriculture; policy development and implementation; and the value of agricultural policy to society.

AGEC 5253 Marketing of Farm Products: 3 semester hours.
Theoretical foundations of the modern economic system, including values added in the marketing system; dimensions and functions of marketing in
relation of time, space, and value; market integration and product quality control; and market contracting orders and power.

AGEC 5263 Research Methods in the Agricultural Sciences: 3 semester hours.
Philosophy, methods, and techniques of scientific inquiry in the discovery of new knowledge in the food, agricultural and human sciences; role of
theory and assumptions. Defining and evaluating research project proposals, including objectives and procedures, analytical methods and techniques,
evaluation of research studies, and development of thesis prospectus or equivalent.

AGEC 5283 Agricultural Finance: 3 semester hours.
Theories, principles, and problems of financing agricultural business, including farms and ranches; costs and returns from the use of capital; forms
and roles of capital in agriculture; capital productivity and earning, and capital market organization, and institutions; supply and demand of financial
resources; and role of debt in farm growth.

Agricultural Engineering (AGEG)

Courses

AGEG 1413 Fundamentals of Agricultural Engineering: 3 semester hours.
Introduction to the major areas of agricultural engineering with emphasis on solving practical problems in agricultural production systems, grain systems,
food systems, and hydrology. Course includes hands on work.

AGEG 2423 Agricultural Machinery: 3 semester hours.
Identification of agricultural machines and equipment; accessories, attachments, and components of agricultural tractors; inspections, adjustments, and
maintenance services; and career opportunities.
AGEG 4423 Farm Drainage: 3 semester hours.
Land drainage: terracing, gully control, irrigation, and land reclamation.

Agronomy (AGRO)

Courses

AGRO 1703 Crop Science: 3 semester hours.
Botanical characteristics of agronomic and horticultural plants; relationship between crops and civilization in both historical and biological terms; nature of crop plants in relation to structure, physiology, environment, growth and development; crop improvement, cropping systems and practices, crop hazards and prevention.

AGRO 2603 Environmental Soil Science: 3 semester hours.
An introduction to soils, its components and its relationship to the environment. The importance of soils to man, animals and plants. Important physical properties, role of soil constituents; origin, nature, and classification of parent materials; soil genesis, classification and survey; soil fertility and chemical properties; soils and chemical pollution; soils and the world's food supplements.
Prerequisites: AGRO 1703 (may be taken concurrently).

AGRO 2613 Natural Resource Conservation Management: 3 semester hours.
Ecological approach to basic conservation principles, concepts and techniques underlying the management and uses of natural resources that is both efficient and sustainable.
Prerequisites: AGRO 1703 and AGRO 2633 (may be taken concurrently).

AGRO 2623 Green House Mgmt: 3 semester hours.
The shape and source of soil features materials and processes involved in or produced after the formation of soil with emphasis on variations world-wide and the principles of soil classification, mapping, and interpretation. Additional topics include: soil taxonomy; land capability classification; soil survey and its utilization; and soil interpretations for non-farm uses.

AGRO 2633 Forage and Pasture Management: 3 semester hours.
Use of forage in grassland agriculture, identification of forage grasses and legumes, cultural practices including weed control, mechanization of forage harvesting and storage; types of pastures, different systems of grazing management and utilization of forages by farm animals.
Prerequisites: AGRO 1703 and AGRO 2613 (may be taken concurrently).

AGRO 2733 Principles of Crop Production: 3 semester hours.
Crop characteristics and classifications, growth patterns, soil and climate requirements (Physiology), pest control, storage, distribution, and application of these principles to the management and production of field and vegetable crops for improved food, fiber, and forages.
Prerequisites: AGRO 1703 and AGRO 2603 (may be taken concurrently).

AGRO 3623 Soil Morphology and Classification: 3 semester hours.
The shape and source of soil features materials and processes involved in or produced after the formation of soil with emphasis on variations world-wide and the principles of soil classification, mapping, and interpretation. Additional topics include: soil taxonomy; land capability classification; soil survey and its utilization; and soil interpretations for non-farm uses.
Prerequisites: AGRO 2603 and AGRO 3633 (may be taken concurrently) and AGRO 3713 (may be taken concurrently).

AGRO 3633 Soil Fertility and Fertilizers: 3 semester hours.
Chemical, biological and physical processes as they influence soil fertility, manufacture of fertilizers and their reactions with soils and the oil-plant-water system.
Prerequisites: AGRO 2603 and AGRO 3623 (may be taken concurrently) and AGRO 3713 (may be taken concurrently).

AGRO 3643 Soil and Water Management: 3 semester hours.
Sustainable soil productivity and management in agricultural systems involving resource inputs, tillage systems, erosion control, residue management, and water management for a quality environment.
Prerequisites: AGRO 2603 and AGRO 3733 (may be taken concurrently).

AGRO 3713 Gen Entomology: 3 semester hours.
Insect morphology, life histories, characteristics and habits of beneficial and harmful insects and their impact on agricultural production and the environment; anatomy and physiological growth and metamorphosis, insect orders, ecological aspects and insect behavior, control of harmful insects.
Prerequisites: AGRO 1703 and AGRO 3623 (may be taken concurrently) and AGRO 3633 (may be taken concurrently).

AGRO 3733 Plant Pathology: 3 semester hours.
Fundamental principles of plant pathology, including parasites and disease development, identification of major agronomic diseases and their biotic and abiotic causes; proper diagnosis of plant diseases, differentiation between signs and symptoms, isolation of pathogens in pure culture; environmental effects on development of infectious plant diseases; control of plant diseases.
Prerequisites: AGRO 1703 and AGRO 3643 (may be taken concurrently).

AGRO 3993 Independent Study: 1-3 semester hour.
Readings, research and/or field work on selected topics.
AGRO 4613 Soil Microbiology: 3 semester hours.
Role of soil microorganisms in soil-plant ecosystems. Microbial ecology, microbes in nutrient cycles important to agriculture, pesticide degradation, bacterial fertilizers, composting, waste disposal, plant microbe interactions. Laboratory estimation of soil microbial populations and measurement of important biological processes in soil and current methods. Prerequisites: AGRO 3623 and AGRO 3633 and AGRO 3643.

AGRO 4623 Environmental Science: 3 semester hours.
Physical, chemical, biological and agricultural components of the environment and their interactions and effects on pollution and the maintenance and utilization of varied environmental systems. Prerequisites: AGRO 3623 and AGRO 3633 and AGRO 3643.

AGRO 4993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

AGRO 5613 Environmental Microbiology: 3 semester hours.
Study of the biological and chemical interactions between microbes and microbial metabolites with the environment (e.g. air, water, and soil) as related to food, agriculture quality and safety, animal and human health, and waste management. Emphasis will be on bioremediation, microbial bioprocesses, microbial by-products, microbial control and aerobiology. Laboratory, field and greenhouse situations will be practiced.

AGRO 5653 Soil Chemistry: 3 semester hours.
Study of the theories, principles, and practices of soils from a chemical process perspective. Soils and the application of nutrient cycling, plant nutrition, waste disposal, acid rain, pesticides and heavy metals. Soil, plant, and water interactions and analysis in laboratory settings required.

AGRO 5663 Principles of Environmental Science and Management: 3 semester hours.
Discussion, study and analysis of the methods of monitoring, assessing, and designing remedies for environmental pollution, including the physical, chemical and biological components utilized in maintaining and improving the capacity of varied environmental characteristics as related to agricultural production.

AGRO 5723 Soil-Plant Relations: 3 semester hours.
Discussion, study and analysis of the theories, principles, and practices which combine the production and management of plants for food, feed, and fiber with the determination of soil properties and their conservation and management. Review and analysis of recent literature pertaining to growth response curves, nutrient uptake, movement of nutrients in the soil, measurement of availability of nutrients to plants, and movement of nutrient to natural water systems.

AGRO 5733 Agricultural Chemicals and Water Quality: 3 semester hours.
Study and analysis of practices underlying the economical use of fertilizers, pesticides, and other agricultural chemicals. Emphasis on the relationship of soil properties and plant growth, selectivity and impact on the environment.

AGRO 5743 Land Disposal of Wastes: 3 semester hours.
Theoretical, regulatory, and practical aspects of disposal of municipal wastes, sewage effluent and sludge, industrial and hazardous wastes by land treatment and filling. Identification and assessment of strategies for clean-up of soil resources contaminated by past waste disposal as well as environmental impact of organic wastes.

AGRO 5753 Soils, Ecology, and Land Uses: 3 semester hours.
Soils and their properties as planned related to landscape ecology and specific land uses will be examined on a global, regional, and local level. An ecosystem approach will be used to examine issues and current problems associated with ecology and land use practices in agricultural systems, rangelands, forests, and wetlands. Also, ethical and philosophical points will be considered based on different soils, ecology, and land use viewpoints.

AGRO 5793 Problems and Issues in Environmental Science: 3 semester hours.
Identification and analysis of current trends and issues in environmental science. Evaluation of pending legislation, federal agency regulations and state and local policy applications. Reports; discussions; projects.

Air Force ROTC (AFSC)

Courses

AFSC 1102 Foundations of the USAF I: 2 semester hours.
Overall roles and missions of the USAF; career fields available. Emphasis on military customs and courtesies, appearance standards, core values, written and personal communication. Introduction to American military history.

AFSC 1202 Foundations of USAF II: 2 semester hours.
Overall roles and missions of the USAF; career fields available. Emphasis on military customs and courtesies, appearance standards, core values, written and personal communication. Introduction to American military history. Prerequisites: AFSC 1102.

AFSC 2102 Evolution of Air Power I: 2 semester hours.
Key historical events and milestones in the development of air power as a primary instruction of United States national security. Core values and competencies of leaders in the United States Air Force. Tenets of leadership and ethics. Prerequisites: AFSC 1202.
AFSC 2202 Evolution of Air Power II: 2 semester hours.
Key historical events and milestones in the development of air power as a primary instruction of United States national security. Core values and competencies of leaders in the United States Air Force. Tenets of leadership and ethics.
Prerequisites: AFSC 2102.

AFSC 3103 Air Force Leadership Studies I: 3 semester hours.
Leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, and leadership ethics. Case studies of Air Force leadership and management situations.
Prerequisites: AFSC 2202.

AFSC 3203 Air Force Leadership Studies II: 3 semester hours.
Leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, and leadership ethics. Case studies of Air Force leadership and management situations.
Prerequisites: AFSC 3103.

AFSC 3306 Field Training: 6 semester hours.
No military obligation is associated with this course. Four weeks off-campus field training practicum. Introduces students to Air Force Leadership. Places student in demanding and stressful leadership situations.
Prerequisites: AFSC 3203.

AFSC 4103 National Security Affairs I: 3 semester hours.
Evolution of the role of national security in a democratic society with emphasis on policy formation, competing values and organizations. Civilian control of the military; roles of the services; functions of the Air Force commands.
Prerequisites: AFSC 3306.

AFSC 4203 National Security Affairs II: 3 semester hours.
Evolution of the role of national security in a democratic society with emphasis on policy formation, competing values and organizations. Civilian control of the military; roles of the services; functions of the Air Force commands.
Prerequisites: AFSC 4103.

Animal Science (ANSC)

Courses

ANSC 1513 General Animal Science: 3 semester hours.
Introductory course dealing with domestic farm animals common in the United States. Selection, reproduction, nutrition, management and marketing of beef cattle, swine, sheep, goats, and horses.

ANSC 2513 Animal Production and Marketing: 3 semester hours.
Systematic study of methods of breeding, feeding, marketing, sanitation and management of commercial animals (swine, beef and dairy cattle, horses, goats and sheep).
Prerequisites: ANSC 1513 and ANSC 2523 (may be taken concurrently) and ANSC 2533 (may be taken concurrently).

ANSC 2523 Poultry Science: 3 semester hours.
Knowledge of the history and development of the poultry industry; the anatomy and physiology of the domestic fowl, especially related to reproduction. Inferences of genetic, environmental and behavioral factors on embryonic development; effects of diet, drugs and toxins. Practices involve artificial incubation, breeding and rearing.
Prerequisites: ANSC 1513 and ANSC 2513 (may be taken concurrently) and ANSC 2533 (may be taken concurrently).

ANSC 2533 Dairy Science: 3 semester hours.
Branches of the dairy industry, introduction to dairy types and breeds, the major factors in the management of cattle for milk production, and the common dairy processes.
Prerequisites: ANSC 1513.

ANSC 2543 Diseases and Sanitation: 3 semester hours.
Clinical studies of the most common livestock diseases embracing anamnesis, etiology, symptoms, diagnosis, therapeutics, and prophylaxis.
Prerequisites: ANSC 1513 and ANSC 2513 (may be taken concurrently) and ANSC 2533 (may be taken concurrently) and ANSC 2553 (may be taken concurrently).

ANSC 2552 Poultry Tech & Marketing: 2 semester hours.
Factors affecting the physical, chemical, microbiological and functional characteristics of poultry and egg products. Product development, processing, quality packaging, and quality control concepts.
Prerequisites: ANSC 1513.

ANSC 3503 Animal Nutrition: 3 semester hours.
Composition and digestibility of feed, with physiology, preparation, feeding standards, calculation and balancing rations for commercial animal (swine, cattle-beef and dairy, sheep, goats, and horses).
Prerequisites: ANSC 1513.
**ANSC 3513 Anatomy and Physiology: 3 semester hours.**
Comparative approach, anatomically and physiologically of the basic systems of the domestic animals.
Prerequisites: ANSC 1513.

**ANSC 3514 Anatomy and Physiology: 4 semester hours.**
Comparative approach, anatomically and physiologically of the basic systems of domestic animals.
Prerequisites: ANSC 1513.

**ANSC 3523 Meat Science: 3 semester hours.**
Methods of slaughtering farm animals, processing, curing preservation and storage of meats and products.
Prerequisites: ANSC 1513.

**ANSC 3993 Independent Study: 3 semester hours.**
Readings, research and/or field work on selected topics.

**ANSC 3996 Independent Study: 1-6 semester hours.**
Readings, research and/or field work on selected topics.

**ANSC 4533 Breeding/Genetics: 3 semester hours.**
Physiology of reproduction, breeding, breeding systems and practices. Application of genetic principles to the problems of animal breeding. Prerequisite: Junior standing.
Prerequisites: ANSC 1513 and ANSC 2513.

**ANSC 4993 Independent Study: 3 semester hours.**
Readings, research and/or field work on selected topics.

**ANSC 5513 Physiology of Reproduction: 3 semester hours.**
Basic biochemical, physiological, and endocrine mechanisms involved in reproductive function. Current research principles and techniques useful in studying physiology of reproduction.

**ANSC 5533 Non-Ruminant Nutrition: 3 semester hours.**
Concepts of the function deficiency, interrelation and bio adaptability of nutrients as part of total feed formulation. The physical, chemical, and biological interrelationships of nutrients as they relate to growth, development, and production of mono-gastric animals.

**ANSC 5543 Ruminant Nutrition: 3 semester hours.**
Current concepts in anatomy, physiology, and microbiology of digestion of ruminants, with application of basic principles to efficient management of beef cattle, dairy cattle, goats and sheep.

**ANSC 5553 Dairy Goat Production and Management: 3 semester hours.**
Review of current research and production practices; the application of developing technology to goat enterprises, with economic evaluation of such enterprises.

**ANSC 5563 Animal Health and Diseases: 3 semester hours.**
Etiology, epidemiology, immunology, preventive measures, and management practices pertinent to diseases and health of animals.

**ANSC 5573 Beef Cattle Production and Management: 3 semester hours.**
Current research and production practices; the application of developing technology for beef cattle enterprises with economic evaluation of such enterprises.

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**Arabic (ARAB)**

**Courses**

**ARAB 1013 Elementary Arabic I: 3 semester hours.**
Practice in listening, speaking, reading and writing standard Arabic in order to acquire vocabulary and structures and a general knowledge of Arabic cultures.

**ARAB 1023 Elementary Arabic II: 3 semester hours.**
Continuation of practice in listening, speaking, reading and writing standard Arabic in order to acquire vocabulary and structures and knowledge of Arabic cultures.
Prerequisites: ARAB 1013.

**ARAB 2013 Intermediate Arabic I: 3 semester hours.**
Further development of speaking, reading, writing, and comprehension skills acquired in elementary Arabic. Introduction of more complex grammatical structures, roots, and patterns. Selected reading materials are included to enhance comprehension. Continues acquisition of vocabulary and emphasis on Arab culture.
Prerequisites: ARAB 1023.
ARAB 2023 Intermediate Arabic II: 3 semester hours.
This course is a continuation of ARAB 2013. Continued development of the four skills via reading materials, discussions, and compositions. Continues expansion of vocabulary within the context of Arab culture. Introduction of more complex grammatical structures, roots and patterns. This course concludes the two-course sequence of intermediate Arabic. Prerequisites: ARAB 2013.

Architecture (ARCH)

Courses
ARCH 1233 Visual Communications: 3 semester hours.

ARCH 1253 Architecture Design: 3 semester hours.
Introduction to basic design issues including forum, space, ordering systems, human use and the architect’s responsibility to society. Students will investigate these issues critically in individual and collaborative projects and communicate findings through visual, oral and written presentations. Co-requisite: ARCH 1233.

ARCH 1266 Architecture Design II: 6 semester hours.
Basic principles of architectural design and communication including organization, spatial sequence, relationships and problem solving using simple interior and exterior problems. Prerequisites: ARCH 1253.

ARCH 1273 Multimedia Digital Applications: 3 semester hours.
The goal of this course is to obtain an introductory skill set for using computer base multimedia technologies, such as Adobe Acrobat, PhotoShop, Illustrator, and AutoCad, which will further help assist them in their studies and practices. The primary emphasis is to help improve their research, productivity, presentation communications through the effective use of graphic technology; stimulating their personal capacity creativity.

ARCH 2223 Computer Aided Design: 3 semester hours.
Introduction to the range and potential of computer aided design and electronic media in problem solving and conceptual design.

ARCH 2233 History of Architecture I: 3 semester hours.
Survey of the development of architecture from Renaissance to modern era. This course will also focus on culturally significant Western and Nonwestern architecture that advances critical thought and intellectual curiosity. Required drawing and reading material will enhance the evolution of historical, social and political concepts and foster the ability to write and express ideas graphically and professionally to engage effectively the regional, national and global community with an emphasis on personal as well as social responsibility.

ARCH 2243 History of Architecture II: 3 semester hours.
Survey of the development of architecture from Renaissance to modern era. This course will also focus on culturally significant Western and Nonwestern architecture that advances critical thought and intellectual curiosity. Required drawing and reading material will enhance the evolution of historical, social and political concepts and foster the ability to write and express ideas graphically and professionally to engage effectively the regional, national and global community with an emphasis on personal as well as social responsibility.

ARCH 2256 Architecture Design III: 6 semester hours.
Problem solving and presentation of basic principles, concepts and ideas as applied to simple architectural problems. Prerequisites: ARCH 1266.

ARCH 2266 Architecture Design IV: 6 semester hours.
Basic architectural design projects with an emphasis on site development, function, form and the design process. Prerequisites: ARCH 2256.

ARCH 2273 Materials and Methods I: 3 semester hours.
Introduction to the properties and uses of natural and manufactured building materials and the effect of the nature of materials upon design.

ARCH 2313 Digital Drawing: 3 semester hours.
Drawing using both digital and conventional drawing techniques.

ARCH 2323 Digital Illustration: 3 semester hours.
Visual communication strategies, color theory and advanced drawing.

ARCH 3256 Architecture Design V: 6 semester hours.
Building design as it relates to structure, circulation, context and support systems. Prerequisites: ARCH 2266 and ARCH 3293 (may be taken concurrently).

ARCH 3266 Architecture Design VI: 6 semester hours.
Analysis and design of structures of advanced complexity with emphasis on interrelationships of building systems. Prerequisites: ARCH 3256.
ARCH 3283 Materials and Methods II: 3 semester hours.
Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

ARCH 3293 Structural Systems I: 3 semester hours.
A study of theory of various structural concepts. Emphasis placed on statics and strength of materials.
Prerequisites: MATH 1123 (may be taken concurrently).

ARCH 3453 Environmental Systems: 3 semester hours.
Fundamentals of environmental systems for buildings: lighting, electrical, heating, ventilating, air conditioning, plumbing, and life safety.

ARCH 3463 Sustainable Building: 3 semester hours.
Issues facing the design and construction industries in creating and maintaining high performance green buildings. Sustainable building projects will be analyzed, green building rating systems of USGBC's LEED system and the DOE's Energy Star program will be studied and researched and presentation of benchmark sustainable case study projects will be accomplished.

ARCH 3473 Ecology and Man: 3 semester hours.
Theoretical frameworks for understanding how the physical and cultural constructs of mankind are integral to the natural world, for the purpose of developing the systems thinking skills that will be required to sustain life.

ARCH 3563 Site and Urban Design: 3 semester hours.
An introduction to urban planning and the analysis of site characteristics, adaptation of building to site, determination of the interrelationship of intended site use with the environment, and the consideration of climate.

ARCH 3643 Presentation Techniques: 3 semester hours.
Basic graphic communications emphasizing good drafting skills in; perspective drawings, rendering techniques and model building. Prerequisite: junior standing.

ARCH 4063 Project Planning and Feasibility: 3 semester hours.
Principles and practice of residential and commercial land development.

ARCH 4406 Architectural Internship: 6 semester hours.
Approved internship in an architecture office, the building construction industry or a planning or public service agency. Prerequisite: Approval of Director or Dean of the School of Architecture.

ARCH 4423 Urban Planning: 3 semester hours.
Study of theories and concepts concerning the structure and function of urban communities; spatial and temporal aspects of urban development; problems and consequences of planned and unplanned changes in urban society.

ARCH 4433 Structural Systems II: 3 semester hours.
A study of theory, behavior and design of structural systems in steel and timber.
Prerequisites: ARCH 3293 and MATH 1123.

ARCH 4443 CAD Construction Documents and Codes: 3 semester hours.
The organization, development and preparation of a complete set of working drawings using computer aided design.
Prerequisites: ARCH 2223.

ARCH 4456 Architecture Design VII: 6 semester hours.
Exploration of urban design and the human and environmental impact of individual designs in the built environment.
Prerequisites: ARCH 3266.

ARCH 4476 Architecture Design VIII: 6 semester hours.
Advanced problems in architecture and planning.
Prerequisites: ARCH 4456.

ARCH 4503 Methods of Research: 3 semester hours.
Study and application of research and programming in architecture.

ARCH 4523 Historic Preservation and Adaptive Reuse: 3 semester hours.
Introduction to the methods and practices of preservation and reuse of architectural heritage.

ARCH 4613 Landscape Architecture: 3 semester hours.
Principles of site development as related to climate, topography, and intended use.

ARCH 4633 Net Zero Energy Design I: 3 semester hours.
Passive House Certification principles and methodologies including design strategies, energy modeling and construction details and processes.

ARCH 4643 Net Zero Energy Design II: 3 semester hours.
Passive and active design strategies for reducing energy use in buildings followed by on-site renewable energy applications to achieve net zero energy use.

ARCH 4653 Alternative Energy Design: 3 semester hours.
Optimum energy use strategies for buildings, energy audit methods, solar system applications, passive energy application and life-cycle cost analysis.
ARCH 4663 Regenerative Design: 3 semester hours.
Integrated frameworks for developing regenerative capabilities in the products of design, the process of design, and the individuals who engage in design.

ARCH 4673 Introduction to Interior Design: 3 semester hours.
Introduction to the profession and practice of interior design.

ARCH 4683 Interior Design II: 3 semester hours.
Interior Design II will provide an advanced understanding in designing and detailing interior architecture, exploring the production of interior mechanical, millwork drawings, and Construction Documents.

ARCH 4733 Advanced Computer Aided Design: 3 semester hours.
Comprehensive architectural design and presentation using 2- and 3 - modeling software. Emphasis on the role electronic media in the visualization of design projects.
Prerequisites: ARCH 2223.

ARCH 4743 Building Information Modeling: 3 semester hours.
Introduction to the fundamentals of Building Information Modeling and how they apply to the design and construction industry and a technology enabled workforce. Introduction to the methods of creation, evaluation and exchange of Building Information Models. Leveraging BIM and 4D modeling for construction optimization and sustainable building initiatives.
Prerequisites: ARCH 2223.

ARCH 4753 Introduction to Geographical Information Systems: 3 semester hours.
Concepts and techniques of utilizing geographic information systems to study and model environmental issues including methods of creating, analyzing and displaying GIS data utilizing industry standard software. Global positioning systems (GPS) will be introduced as a means of creating GIS data.

ARCH 4763 Energy Modeling: 3 semester hours.
Utilize energy, solar, and hygrothermal modeling software to determine how to cost effectively achieve high performing buildings.

ARCH 4776 Urban Design Studio: 6 semester hours.
Projects with a focus on urban issues and context.

ARCH 4971 Special Topics: 1 semester hour.
Selected current and emerging topics in architecture.

ARCH 4972 Special Topics: 2 semester hours.
Selected current and emerging topics in architecture.

ARCH 4973 Special Topics: 3 semester hours.
The study of various specialized fields of architecture as they relate to contemporary social issues. Topics vary by semester. Course may be repeated for credit when topics vary.

ARCH 4976 Special Topics: 6 semester hours.
Design studio with a focus on a particular issue or area of architecture. Topics vary by semester. Course may be repeated for credit when topics vary.

ARCH 4986 Special Projects: 6 semester hours.
Unique design studio projects tailored to learning objectives. May be repeated for credit.
Prerequisites: ARCH 2266.

ARCH 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics.

ARCH 4996 Independent Study: 1-6 semester hour.
Readings, research, and/or field work on selected topics.

ARCH 5423 Urban Planning: 3 semester hours.
Study of theories and concepts concerning the structure and function of urban communities; spatial and temporal aspects of urban development; problems and consequences of planned and unplanned changes in urban society.

ARCH 5483 Structural Systems III: 3 semester hours.
Structural design and analysis of building systems in steel and reinforced concrete; long spans, lateral forces, connections, code requirements, and economics of structural systems.
Prerequisites: ARCH 4433.

ARCH 5506 Internship: 6 semester hours.
Approved summer internship in an architecture office, the building construction industry or a planning or public service agency or approved foreign study program. Appropriate documentation of the experience will be required.

ARCH 5513 Research Seminar: 3 semester hours.
Research and programming for the Comprehensive Project Studio.

ARCH 5523 Historic Preservation and Adaptive Reuse: 3 semester hours.
Introduction to the methods and practices of preservation and reuse of architectural heritage.
ARCH 5566 Architecture Design IX: 6 semester hours.
Advanced design studio with emphasis on comprehensive architectural design projects.

ARCH 5579 Comprehensive Project Studio: 9 semester hours.
A comprehensive design project based on research and programming accomplished in ARCH 5513.

ARCH 5593 Professional Practice: 3 semester hours.
The ethical, legal and administrative responsibilities of the architect. Relationships between the architect, the client, and the contractor involved in comprehensive architectural services and emerging techniques of practice.

ARCH 5743 Building Information Modeling: 3 semester hours.
Exploring the fundamentals of Building Information Modeling and how they apply to the design and construction industry and a technology enabled workforce. Exploring the methods of creation, evaluation and exchange of Building Information Models. Leveraging BIM and 4D modeling for construction optimization and sustainable building initiatives.

ARCH 5973 Special Topics: 3 semester hours.
The study of various specialized fields of architecture as they relate to contemporary social or technical issues. Topics vary by semester. Course may be repeated for credit when topics vary.

ARCH 5976 Special Topics: 6 semester hours.
Design studio with a focus on a particular issue or area of architecture. Topics vary by semester. Course may be repeated for credit when topics vary.

ARCH 5986 Special Projects: 6 semester hours.
Design projects of differing lengths and content with group or individual involvement. May be repeated for credit.

ARCH 5996 Independent Study: 1-6 semester hour.
Readings, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

Army ROTC (ARMY)

Courses

ARMY 1111 Foundations of Officership I: 1 semester hour.
Instills awareness of the role that ROTC plays in developing leaders. Students receive introductory seminar on the purpose, role, organization, and mission of the U.S. Army. Basic military skills are developed while providing students with skills and strategies that enable them to make successful transitions to university life.

ARMY 1121 Foundations of Officership II: 1 semester hour.
Instills awareness of the role that ROTC plays in developing leaders. Students receive introductory seminar on the purpose, role, organization, and mission of the U.S. Army. Basic military skills are developed while providing students with skills and strategies that enable them to make successful transitions to university life.

ARMY 1131 Enhanced Eng/Writ: 1 semester hour.
Emphasizes the fundamentals of writing skills. Includes the use of the active voice, clear, and concise writing. Provides practical exercises in developing syntactic writing assignments related.

ARMY 1141 Read/Cognitive: 1 semester hour.
Considers reason-consequence, premise-conclusion, general-specific classification of written ideas, problem-solving methods, verbal reasoning problems, analogies, analysis of trends patterns, and vocabulary development.

ARMY 1151 Army Enhanced Math: 1 semester hour.
Provides practical, mathematical experiences in arithmetic, elementary algebra and geometry as they relate to maps, graphs, charts, and verbal problems/military related examples.

ARMY 1171 Leadership Laboratory I: 1 semester hour.
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Physical Readiness Training as a model.

ARMY 1181 Leadership Laboratory II: 1 semester hour.
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Physical Readiness Training as a model.

ARMY 2203 Military History: 3 semester hours.
Provides a historical perspective to decisions made by American military leaders. The course covers major military engagements from the colonial period through the current operating environment. Students will examine how military leaders motivated their men, devised battle strategies, implemented rules of engagement, managed supplies, managed transportation assets as well as logistics for their troops.
**ARMY 2212 Individual Leadership Studies and Team Work I: 2 semester hours.**
Enhances basic individual skills, while emphasizing small-unit team building. Develops student leadership potential through study and application of principles and techniques of leadership in a military environment. Topics covered include communications, map reading and land navigation, survival techniques, and customs and laws of war.
Prerequisites: ARMY 1111 and ARMY 1121.

**ARMY 2222 Individual Leadership Studies and Team Work II: 2 semester hours.**
Studies principle in small-unit management, tactics, operations and leadership. Develops students' self-confidence in their leadership ability through progressive application of knowledge, decision making, communication and control.
Prerequisites: ARMY 2212.

**ARMY 2271 Leadership Laboratory III: 1 semester hour.**
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Readiness Training as a model.

**ARMY 2281 Leadership Laboratory IV: 1 semester hour.**
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Readiness Training as a model.

**ARMY 3313 Principles and Techniques of Leadership and Management: 3 semester hours.**
Studies leadership techniques and tactical operations at the small-unit level. An induction to the basic team/squad tactical employment. Instruction covers operation orders, troop leading procedures, and squad movement techniques. Individual skills in map reading, land navigation, basic rifle marksmanship and physical fitness are emphasized.
Prerequisites: ARMY 2212 and ARMY 2222.

**ARMY 3323 Leadership Skills and Small Unit Tactics: 3 semester hours.**
Studies leadership techniques and tactical operations at the small-unit level. In-depth analysis of team/squad tactical procedures and techniques. Instruction covers the principals of offensive and defensive combat operations, patrolling, the decision-making process, troop leading procedures, land navigation, and operation orders. Numerous student oral presentations and practical exercises.
Prerequisites: ARMY 3313.

**ARMY 3371 Leadership Laboratory V: 1 semester hour.**
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Physical Readiness Training as a model.

**ARMY 3381 Leadership Laboratory VI: 1 semester hour.**
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Physical Readiness Training as a model.

**ARMY 3993 Independent Study: 1-3 semester hour.**
Studies leadership techniques and tactical operations at the small-unit level. An induction to the basic team/squad tactical employment. Instruction covers operation orders, troop leading procedures, and squad movement techniques. Individual skills in map reading, land navigation, basic rifle marksmanship and physical fitness are emphasized. Or it will be an in-depth analysis of team/squad tactical procedures and techniques. Instruction covers the principals of offensive and defensive combat operations, patrolling, the decision-making process, troop leading procedures, land navigation, and operation orders.
Prerequisites: ARMY 2212 and ARMY 2222.

**ARMY 4411 Professional Reading for Army Leaders: 1 semester hour.**
This course is a study and contemplation of essential components for the individual professional development of every Army Leader. In addition to training as Soldiers and physical fitness conditioning, the mind must improve through reading and critical thinking. The Army operates in a complex strategic environment demanding the improvement of knowledge for not only military affairs; but, economics, politics, and international affairs. This course will teach Cadets how to train for new types of missions, how to deploy forces rapidly to distant regions around the world, and how to pursue innovation and change while preserving the Army's core capabilities in an era of fiscal constraint. Additionally, this course will sharpen the understanding of strategic land power, the indispensable role of ethical leadership, and extraordinary demands of land combat. A challenging course set up to discuss debate, and think critically about ideas through reading.
Prerequisites: ARMY 4413 and ARMY 4423.

**ARMY 4413 Leadership and Management I: 3 semester hours.**
Considers the role of the junior officer in the U.S. Army. Individual motivational and behavioral processes, leadership, communications, financial planning, counseling, command and staff functions are emphasized.

**ARMY 4421 Effective Writing for Army Leaders: 1 semester hour.**
This course teaches the standard for army writing. The study and practice of the Army Writing Program is essential to accurate, timely and informed communication. Army writing teaches written communication is a single rapid reading free of errors in grammar, mechanics, and usage. This course will teach Cadets how to write in a clear, concise, organized, and right to the point manner, using the bottom line up front technique. In addition, this class will provide accessible information on what kind of staff writing to demand and how to have it produced. Understand in detail what good Army writing is and how to establish uniform Army writing standards and use quantifiable tools to reinforce better writing.
Prerequisites: ARMY 4413 and ARMY 4423.
ARMLY 4423 Leadership and Management II: 3 semester hours.
Pre-service overview of Army organization and general concept of operations. Includes a study of administration and logistics for junior officers, including many sub-courses in military justice, Army readiness, ethics and professionalism, and a review of the principles of war.

ARMLY 4471 Leadership Laboratory VII: 1 semester hour.
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Readiness Training as a model.

ARMLY 4481 Leadership Laboratory VIII: 1 semester hour.
Considers the fundamentals of leadership. Provides practical exercise in command, organization, and control of small elements, together with physical fitness, using U.S. Army Readiness Training as a model.

ARMLY 4991 Independent Study: 1 semester hour.
Provides practical exercise in command and organization.

ARMLY 4993 Independent Study: 1-3 semester hour.
Considers the role of the junior officer in the U.S. Army. Individual motivational and behavioral processes, leadership, communications, financial planning, counseling, command and staff functions are emphasized. Or it will include an overview of Army organization and general concept of operations. Includes a study of administration and logistics for junior officers, including many sub-courses in military justice, Army readiness, ethics and professionalism, and a review of the principles of war.
Prerequisites: ARMY 3313 and ARMY 3323.

Art (ARTS)

Courses

ARTS 1001 Art Seminar I: 1 semester hour.
Informational seminar meeting once a week to allow staff members and art majors and minors to discuss contemporary visual art developments.

ARTS 1021 Art Seminar II: 1 semester hour.
Informational seminar meeting once a week to allow staff members and art majors and minors to discuss contemporary visual art developments.

ARTS 1113 Design I: 3 semester hours.
Study of the elements and concepts of two-dimensional design.

ARTS 1123 Design II: 3 semester hours.
A continuation of Design I with emphasis on 1. Research and concept development. 2. Form and composition relationships, and 3. Hand-crafted 3-dimensional media experimentation.
Prerequisites: ARTS 1113.

ARTS 1133 Drawing I: 3 semester hours.
An introductory course investigating a variety of media and techniques.

ARTS 1173 Creative Thinking: 3 semester hours.
This course seeks to increase students' understanding of the creative process, to allow students to explore different techniques for developing ideas by studying interdisciplinary examples of creativity and applying them in common professional design situations.
Prerequisites: ARTS 1113.

ARTS 1116 Drawing II: 3 semester hours.
The study of the human anatomy and structural dynamics.

ARTS 1103 Introduction to Visual Arts: 3 semester hours.
An introductory course that emphasizes an understanding and appreciation for the visual arts (painting, drawing, sculpture, architecture, crafts etc.).

ARTS 1213 Digital Studio Art: 3 semester hours.
Painting, drawing and sculpture using both traditional and digital techniques.

ARTS 2133 Ceramics: 3 semester hours.
Investigation and practice in ceramic processes, forming and firing techniques.

ARTS 2193 Painting: 3 semester hours.
Basic principles and elements of painting.

ARTS 2223 History of Art I: 3 semester hours.
A survey of painting, sculpture, architecture and the minor arts from prehistoric times to the 13th century.

ARTS 2233 History of Art II: 3 semester hours.
Art from the 13th Century to contemporary times including Europe, Asia, the Far East and the Americas.

ARTS 2243 Introduction to African Arts: 3 semester hours.
Survey of the visual expressions and experiences shaping African art from its inception to the present.
ARTS 2283 African American Art: 3 semester hours.
A survey of African American art from the post-Civil War to present, linking with the Arts of the African continent.

ARTS 2313 Graphic Design Hist: 3 semester hours.
Survey and examination of the historical events, technological developments and fine arts movements that have influenced the current state of graphic design.

ARTS 2353 Color Theory: 3 semester hours.
Exploration of the language of color focusing on color properties and relationships, expressive qualities and symbolic meanings.
Prerequisites: ARTS 1113.

ARTS 2363 Sign + Symbol: 3 semester hours.
Investigation of images and symbols and their meanings within different contexts and employing various image-making techniques.
Prerequisites: ARTS 1153 and DGMA 2173.

ARTS 2993 Independent Study: 1-3 semester hour.
Individual studies in studio art.

ARTS 3113 Oil Painting I: 3 semester hours.
Explores the potentials of oil painting media, with emphasis on technique and composition.
Prerequisites: ARTS 2193.

ARTS 3123 Advanced Advertising Art III: 3 semester hours.
Course develops students' ability to deal with design problems of various print media from concept through comprehensive layout including the computers.

ARTS 3143 Sculpture I: 3 semester hours.
An exploration of various sculptural approaches in a variety of media, including additive and subtractive techniques.

ARTS 3173 Watercolor: 3 semester hours.
Study and practice in planning and execution of painting in transparent and opaque watercolor.

ARTS 3193 Printmaking: 3 semester hours.
Introduction to basic printmaking techniques, with emphasis on the proper use of tools and equipment.

ARTS 3323 Typography I: 3 semester hours.
Study and exploration into the history of type, expressive qualities of letterform and visual arrangement of type to support content.

ARTS 3343 Graphic Design Proc: 3 semester hours.
Introduction to production and traditional and digital pre-press procedures for print design.

ARTS 3513 Crafts Design: 3 semester hours.
The study of several crafts including clay, fibers, paper, textiles and plaster.

ARTS 3993 Independent Study: 1-3 semester hour.
Individual studies in studio art.

ARTS 4103 Creative Photography I: 3 semester hours.
An introduction to basic photographic processes and techniques used as an art medium.

ARTS 4133 Printmaking II: 3 semester hours.
Exploration of ideas using various printmaking media and techniques. This course builds upon Printmaking I (ARTS 3193) relief fundamentals and introduces additional print processes and combinations of those processes to allow individual expression, with an emphasis in Green Intaglio, Lithography, and Screen Printing.
Prerequisites: ARTS 3193.

ARTS 4193 Studio Thesis: 3 semester hours.
Emphasis on preparing students for Senior Art Exhibition.

ARTS 4213 Book Arts: 3 semester hours.
Introduces intermediate concepts in book arts and papermaking. This class will involve concepts in printing, binding papermaking and interdisciplinary media, and will discuss contemporary theories and approaches in the book arts field. Students learn several bookbinding and hand papermaking methods in order to provide a foundation for the development of concept-driven artists' book.

ARTS 4993 Independent Study in Studio Art: 3 semester hours.
Individual studies in studio art.

Biology (BIOL)

Courses

BIOL 1015 General Biology: 5 semester hours.
Basis of life, cell theory, structure and energy transformation, reproduction, and genetic variability. Origins of diversity of organisms.
**Biology (BIOL)**

**Biol 1021 Biology Seminar: 1 semester hour.**
Discussion and presentations of current biological topics by students, faculty, and guest lecturers.

**Biol 1025 General Biology: 5 semester hours.**

**Biol 1031 Biology Seminar: 1 semester hour.**
Discussion and presentations of current biological topics by students, faculty, and guest lecturers.

**Biol 1034 Botany: 4 semester hours.**
Morphology and physiology of flowering plants. Structure, method of reproduction, and biotic relationships of type representatives of lower plants.

**Biol 1045 Anatomy and Physiology I: 4 semester hours.**
An introductory course examining the organization of a human body and the mechanisms for maintaining homeostasis. Topics include chemistry of life, cell and tissue structure, metabolism, skeleton, muscular, nervous, endocrine, and integumentary system. Designed for students who will pursue a career in nursing.

**Biol 1064 Anatomy and Physiology II: 4 semester hours.**
An introductory course examining the organization of a human body and the mechanisms for maintaining homeostasis. Topics include metabolism, the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Designed for students who will pursue a career in nursing.

**Biol 1015 General Microbiology: 3 semester hours.**
Morphology and physiology of microorganisms related to health and sanitation; disinfection, growth, and control of those organisms causing common infectious diseases.

**Biol 1111 College Biology Laboratory: 1 semester hour.**
Introductory laboratory course for non-biology majors. Emphasis on basic biological principles and their application to human life.

**Biol 1113 College Biology I: 3 semester hours.**
Introductory course for non-biology majors. Emphasis on basic biological principles and their application to human life. Contemporary biology that covers the chemical basis of life, structure and function of the cell, molecular biology and genetics.

**Biol 1123 College Biology II: 3 semester hours.**
A reflection of the interdependence of plants on animals and how man’s existence is depending on successful interactions between plants and animals.

**Biol 2054 Genetics: 4 semester hours.**
Analysis of the structure, function, and transmission of genetic materials.
Prerequisites: Biol 1015 and Biol 1025 and Biol 1034.

**Biol 2063 Hlthcare Minort Com: 3 semester hours.**
Introduction to the major health concerns that afflict minority and underserved communities. This course will examine the infectious diseases of special concern to public health and will identify and present for discussion. The course will examine current health policy and the availability of health services as modifiable influences on the health status of minority and underserved communities.

**Biol 3014 Human Physiology and Anatomy: 4 semester hours.**
For biology and physical education majors. Human structure, physiology, organ systems, and related principles.
Prerequisites: Biol 1015 and Biol 1025.

**Biol 3024 Human Physiology and Anatomy: 4 semester hours.**
For biology and physical education majors. Human structure, physiology, organ systems, and related principles.
Prerequisites: Biol 1015 and Biol 1025.

**Biol 3034 General Microbiology: 4 semester hours.**
Morphology, physiology, classification, and cultivation of the microorganism relevant to agriculture, pre-medicine, and industry.
Prerequisites: Chem 1033 and Biol 1015.

**Biol 3044 Immunology: 4 semester hours.**
Fundamental aspects of immunology, antigenic systems, hypersensitivity, and serology.
Prerequisites: Biol 1015 and Biol 1025.

**Biol 3054 Gross Anatomy: 4 semester hours.**
Introduce the basic principles and facts relating to the gross anatomy of the human body.
Prerequisites: Biol 1015 and Biol 1025.

**Biol 3063 Human Dis Epi Mthds: 3 semester hours.**
An introduction to the basic methodology of epidemiology study. This course will address statistical measures used frequently with epidemiological study designs and the description/analysis of data. The course will also include a discussion of the usefulness of epidemiologic study design in clinical and non-clinical settings.

**Biol 3064 Animal Histology: 4 semester hours.**
Microscopic study of tissues and organs of vertebrates. Relation of structure to function.
Prerequisites: Biol 1015 and Biol 1025.
**BIOL 3073 Molecular Biology I: 3 semester hours.**
The dynamics of carbohydrate, fat, protein and nucleic acid metabolism; recombinant DNA evolution, gene structure and function in specialized eukaryotic systems.
Prerequisites: BIOL 1025 and CHEM 2043.

**BIOL 3083 Molecular Biology II: 3 semester hours.**
Regulation of gene function in bacterial cells; the functioning of eukaryotic chromosomes; the extraordinary diversity of eukaryotic viruses.
Prerequisites: BIOL 1025 and CHEM 2043.

**BIOL 3124 Cell Biology: 4 semester hours.**
A study of the ultrastructure and macro-molecular organization of cells, with emphasis on eukaryotic cells. The convergence of structure and function in life phenomena will be highlighted.
Prerequisites: BIOL 1025 and CHEM 2043.

**BIOL 3134 Synthetic Biology: 4 semester hours.**
The interdisciplinary study of the implementation and application of synthetic biology applied to design and construction of new biological parts, devices and systems.
Prerequisites: BIOL 1015 and BIOL 1025 and BIOL 2054 and BIOL 3073.

**BIOL 4012 Med Terminology: 2 semester hours.**
Emphasis is on understanding basic medical terms and learning how they are used in documenting and reporting patient care procedures. Practical applications are provided by exercises and medical record analyses in each chapter.

**BIOL 4013 Topics in Genomics: 3 semester hours.**
The study of the human genome in a holistic manner. Physical mapping and large scale DNA sequencing of the human genome: gene expression and micro arrays; the application of genome data to the incidence of disease markers and gene based therapeutics.
Prerequisites: BIOL 1015 and BIOL 1025 and BIOL 2054 and CHEM 2033 and CHEM 2043.

**BIOL 4014 Vertebrate Embryology: 4 semester hours.**
Structure, principles, and progress in vertebrate development. Chickens and pigs as principle laboratory materials.
Prerequisites: BIOL 1015 and BIOL 1025.

**BIOL 4024 Comparative Anatomy: 4 semester hours.**
Anatomy of organs and organ systems, their function and evolution in major vertebrate types.
Prerequisites: BIOL 1015 and BIOL 1025.

**BIOL 4034 Practicum in Biology: 4 semester hours.**
Recent advances in biology. Emphasis placed on investigation and inquiry as a means of acquiring knowledge in biology.

**BIOL 4051 Research: 1 semester hour.**
Library and laboratory work in specific biological problems.

**BIOL 4061 Research: 1 semester hour.**
Library and laboratory work in specific biological problems.

**BIOL 5003 Research in Zoology: 3 semester hours.**
Selected individual research problems in any specified area in which the student has a sufficient background.

**BIOL 5013 Genomics: 3 semester hours.**
The study of the genomes on a holistic manner, thus providing information on the uses and shortcomings of genetic information. The application of genomic data to determine the incidences of disease; to identify disease markers and develop gene based therapeutics.

**BIOL 5024 Microscopic Anatomy: 4 semester hours.**
Microscopic study of tissues and organ of vertebrates; relation of structure to function.

**BIOL 5033 Biotechnology and Forensics: 3 semester hours.**
Introduction of applications of biotechnology to forensic biology concepts and techniques.
Prerequisites: BIOL 5123 and BIOL 5183.

**BIOL 5053 Air Pollutants: 3 semester hours.**
Introduction of essentials of the toxicology of major air contaminants, the factors governing air quality criteria and standards, and alternatives for air pollution abatement.

**BIOL 5063 Micro Activ Toxico: 3 semester hours.**
Survey of microbial actions in the field of environmental toxicology. Toxigenic microorganisms, major microbial toxins and use of microbial systems in toxicological studies. Microbial alterations of environmental contaminants.

**BIOL 5073 Selected Topics in Environmental Toxicology: 3 semester hours.**
In-depth treatments of several important areas in the field of environmental toxicology, including studies of microbiology of toxic substances, toxic substances in food, poisonous plants and venomous animals, occupational health and safety and chemical ecology.

**BIOL 5074 Genetics: 4 semester hours.**
Laws and principles governing heredity in plants and animals; plant and animal improvement through eugenics.
Biol 5123 Cell and Molecular Biology: 3 semester hours.
An in-depth study of the morphological and functional aspects of the cell. Emphasis will be placed on the current understanding of cell structure and how this relates to physiological and biochemical processes.
Prerequisites: CHEM 2033 and CHEM 2043.

Biol 5141 Seminar in Biological Problems: 1 semester hour.
Student participation in general and specific research topics in Biology.

Biol 5143 Field and Animal Ecology: 3 semester hours.
Composition, dynamics and distribution of biotic communities in various sections of the southwest. Outdoor camping and cooking.

Biol 5183 Experimental Genetics: 3 semester hours.
The use of experimental molecular genetics methods to reinforce genetic principles.

Biol 5204 Biology for Teachers: 4 semester hours.
Training course for prospective teachers of zoology and botany. Lectures or conferences, field and laboratory work.

Biol 5303 Biotechnology and Forensics: 3 semester hours.
Introduction of applications of biotechnology to forensic biology concepts and techniques.
Prerequisites: BIOL 5123 and BIOL 5183.

Biol 5991 Independent Study: 1 semester hour.
Reading, research and/or field work on selected topics in Biology. Prerequisite: consent of advisor. Students may register this course each semester. Only six credit hours may be earned.

Biol 5993 Independent Study: 3 semester hours.
Reading, research and/or field work on selected topics in Biology. Prerequisite: consent of advisor. Students may register this course each semester. Only six credit hours may be earned.

Business Communication (BCOM)

Courses

BCOM 3303 Business Communication: 3 semester hours.
Development of best practices in business communication as it relates to the collection, organization, and preparation of business reports. Emphasis will be placed on techniques of collecting, interpreting and presenting information useful in a corporate setting.
Prerequisites: ENGL 1133 and MISY 1013.

BCOM 5203 Managerial Communication: 3 semester hours.
Applications of communications theory, human relations concepts, research methods, and information technology to the internal communication of the manager's work environment. Survey of the organizational communication climate, applications, oral and written reports.

Business Law (BLAW)

Courses

BLAW 2203 Legal Environment of Business: 3 semester hours.
A survey of the U.S. legal system with an emphasis on aspects relevant to business operations. Topics include legal systems, constitutional law, criminal law, property law, torts, and basic contract law.

BLAW 2213 Business Law: 3 semester hours.
Covers topics including the U.S. Uniform Commercial Code, agency law, employment and discrimination law, and regulatory topics.
Prerequisites: BLAW 2203.

BLAW 2243 Law of Agency: 3 semester hours.
A study of law of agency including principle-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of an agency.
Prerequisites: BLAW 2203.

BLAW 5013 Legal Environment of Business: 3 semester hours.
Introduction to the legal foundation of business and international business regulation. Examines legal topics including the laws on property, tort, contract, crime, consumers, agency, business organizations, employment and employment discrimination, and various regulatory areas.

C&I Instruction Technology (CIIT)

C&I Instructional Design (CID)
Chemical Engineering (CHEG)

Courses

CHEG 1011 Intro Engr, Comp Sci & Tech: 1 semester hour.
Introduction to basic engineering, computer science and technology concepts. Students will become aware of the various disciplines of engineering, computer science and technology, ethical and professional responsibilities in these fields, creativity and design.
Co-requisite: CHEG 1021.

CHEG 1021 Intro CHEG Lab: 1 semester hour.
Introduction to the field of engineering, industries, careers, and the curriculum. Basic engineering terms, concepts, calculations problem solving skills, ethics, and computer applications.
Co-requisite: CHEG 1011.

CHEG 2003 Eco Anal Technical Application: 3 semester hours.
Fundamental concepts of economic principles. Evaluation of technical alternatives, economic significance of technical proposals; interest, description, analysis, and forecasting.
Prerequisites: MATH 1124.

CHEG 203 Materials Science: 3 semester hours.
Chemical bonding, atomic order and disorder, transport properties, single phase and multiphase materials, heat treatment, corrosion, and composites.
Prerequisites: CHEM 1043 (may be taken concurrently) or CHEM 1034 (may be taken concurrently).

CHEG 2043 Chemical Engineering Thermodynamics I: 3 semester hours.
Introduction to chemical engineering calculations. PVT properties of fluids, equations of state. First and second laws of thermodynamics. Applications to heat effects and flow processes.
Prerequisites: (CHEM 1043 or CHEM 1034) and PHYS 2513.

CHEG 2053 Material and Energy Balances: 3 semester hours.
Application of the laws of conservation of mass and energy to reacting and non-reacting, simple and complex chemical systems. Application of both element and species balances to multiple reaction systems. Application of the degrees-of-freedom analysis to single process units and multi-unit process flow-sheets. Numerical solution techniques for the solution of balance equations.
Prerequisites: CHEG 2043 (may be taken concurrently).

CHEG 2153 Biochemical Engineering Fundamentals: 3 semester hours.
This course introduces biology fundamentals and associated subjects required for engineers to understand and design multidisciplinary technology in the complementary areas of biological sciences and engineering. To accommodate those who do not have the biological background, the course covers basic biological principles and engineering applications of general biology including: biochemistry, genetics, and physiology. Subsequently, special emphasis is placed on applying engineering concepts to biological problems.
Prerequisites: (CHEM 1043 or CHEM 1034) and CHEM 2033.

CHEG 2156 Chemical Engineering Internship I: 6 semester hours.
This course is an internship program of work experience with an approved engineering firm.

CHEG 3011 Chemical Engineering Laboratory I: 1 semester hour.
Quantitative experimental study of properties of fluids, fluid mechanics, metering, and heat transfer. Operation and evaluation of equipment, techniques of graphical and statistical data analysis. Strong emphasis is placed on safety, report writing and oral communication.
Prerequisites: CHEG 3013 (may be taken concurrently) and PHYS 2511 (may be taken concurrently) and PHYS 2521 (may be taken concurrently) and CHEM 1021 (may be taken concurrently) and (COMM 1003 (may be taken concurrently) or SPCH 1003 (may be taken concurrently)) and (ENGL 1133 (may be taken concurrently) or ENGL 1143 (may be taken concurrently)).

CHEG 3013 Heat, Mass, and Momentum Transport: 3 semester hours.
Prerequisites: CHEG 2053 and MATH 2043.

CHEG 3023 Unit Operations: 3 semester hours.
Application of transport theory to the design of equipment for the pumping and transfer of fluids through pipes, heat exchange, interphase transfer of heat and mass for the separation and purification of process streams.
Prerequisites: CHEG 2053.

CHEG 3043 Equilibrium Stage Separation Processes: 3 semester hours.
Applications of heat and mass balances and phase equilibria to the design of staged separation processes. Use of graphical methods such as McCabe Thiele and Ponchon Savarit for the treatment of binary systems. Application to distillation, absorption, stripping, and extraction.
Prerequisites: CHEG 2053 and CHEG 3053.
CHEG 3053 Chemical Engineering Thermodynamics II: 3 semester hours.
Prerequisites: CHEG 2043 and CHEG 2053 (may be taken concurrently).

CHEG 3063 Chemical Reaction Kinetics and Reactor Design: 3 semester hours.
Application of fundamental concepts of reaction stoichiometry, chemical and biochemical kinetics, and equilibria to the interpretation of reaction rate data. Application of reaction rate and heat and mass transfer correlations to the design of batch reactors, continuous staged reactors, and tubular reactors.
Prerequisites: MATH 2043 and CHEG 3053 and CHEG 2013.

CHEG 3113 Introduction to Energy Systems: 3 semester hours.
This course introduces fundamental physical and engineering principles associated with various energy systems. Basic energy concepts will be introduced describing the magnitudes and patterns of human energy needs. Historical evolution and present status of the conventional fossil and nuclear-fuelled energy will be investigated along with others such as hydropower, biofuels, and the developing renewable energy systems.
Prerequisites: MATH 2024 and PHYS 2523 and (CHEM 1034 or CHEM 1043).

CHEG 3153 Introduction to Biotechnology: 3 semester hours.
This course introduces students of chemical engineering, biological sciences, and chemistry to biological concepts and Nano scale considerations in engineering applications. It provides training for effective communication, hands-on skills, and analytical tools needed to pursue careers in biological/ biochemical, and biopharmaceutical process industries. Ties to relevant current research will be explored.
Prerequisites: CHEG 2153 (may be taken concurrently).

CHEG 3156 Chemical Engineering Internship II: 6 semester hours.
This course is an internship program of work experience with an approved engineering firm.

CHEG 4011 Chemical Engineering Laboratory II: 1 semester hour.
Chemical engineering laboratory directed to separation processes such as gas absorption, fractional distillation, extraction, and drying. Study of reaction rates and equilibria in simple chemical systems. Emphasis is placed upon experimental data required for the scale-up to commercial scale equipment.
Prerequisites: CHEG 3023 (may be taken concurrently) and CHEG 3043 (may be taken concurrently) and (SPCH 1003 (may be taken concurrently) or COMM 1003 (may be taken concurrently)) and (ENGL 1113 (may be taken concurrently) or ENGL 1143 (may be taken concurrently)) and PHYS 2511 (may be taken concurrently) and PHYS 2521 (may be taken concurrently) and CHEM 1021 (may be taken concurrently).

CHEG 4031 Chemical Engineering Laboratory III: 1 semester hour.
Chemical engineering laboratory with emphasis on reactive and control systems. Measurement of reaction conversion, determination of reaction order and rate in a tubular reactor. Analysis of the dynamic responses of stirred tanks in series. Experimental study of the use of analog and digital controller for heat exchanger and flow and level control systems.
Prerequisites: CHEG 4033 (may be taken concurrently) and (SPCH 1003 or COMM 1003) and (ENGL 1113 or ENGL 1143) and PHYS 2511 and PHYS 2521 and CHEM 1021.

CHEG 4033 Process Dynamics and Control: 3 semester hours.
Dynamic response and control of chemical process equipment such as reactors, heat exchangers, distillation columns. Use is made of fundamental techniques of servomechanism theory such as block diagrams, transfer functions, and frequency response; stability analysis and control loop design. Unsteady state modeling and computer simulation of simple control systems.
Prerequisites: CHEG 3063 (may be taken concurrently) and (MATH 4173 (may be taken concurrently) or MATH 3685 (may be taken concurrently)).

CHEG 4043 Chemical Process Design and Analysis: 3 semester hours.
Use of material and energy balance calculations, thermodynamics, transfer operations, reaction kinetics and process economics for the synthesis and analysis of chemical processing systems. Design alternatives are analyzed by the use of case studies, computerized flow sheet modeling and simulation, and optimization methods. Safety and design codes are emphasized.
Prerequisites: CHEG 3013 and CHEG 3023 and CHEG 3043 and CHEG 3063.

CHEG 4103 Special Topics in Chemical Engineering: 3 semester hours.
This course presents selected current and emerging topics in chemical engineering depending on need as determined by the department faculty.

CHEG 4133 Process Modeling and Simulation: 3 semester hours.
Construction and solution of mathematical models of process units and integrated systems for computer simulation. Both steady and dynamic models will be developed. Students will make use of one or more of the commercial flow sheet simulation programs for the analysis of specific systems.

CHEG 4153 Bioengineering: 3 semester hours.
Design and analysis of biochemical systems with applications in biomedical engineering and metabolic processes, enzyme catalyzed reactions and product separation, biomass production, and wastewater treatment. Emphasis is placed upon the application of biochemical systems structure, reaction kinetics, transport processes, and control in the design and use of biochemical reactors and separation units.

CHEG 4163 Engineering Optimization: 3 semester hours.
Optimization methodology, with a major focus on the techniques and stratagems relevant to engineering applications arising in design, operations and analysis, is emphasized. This includes linear, dynamic and nonlinear optimization techniques applied to engineering examples drawn from the chemical, industrial and mechanical engineering fields.
CHEG 4183 Design of Process Engineering Systems: 3 semester hours.
The course will stress the interdisciplinary nature of systems design and will include structural, hydraulic, process, utilities and control concepts. Development of one or more selected applications in optimal design of continuous and batch systems. Studies will involve the use of computer-aided design, cost estimation, engineering data bases, and project scheduling. Prerequisites: CHEG 3013 and CHEG 3023 and CHEG 3043 and CHEG 3063.

CHEG 4472 Senior Design and Professionalism - I: 2 semester hours.
This is the first course of a two-semester capstone experience (CHEG 4472 must immediately follow 4472 or sequence must restart with 4472) involving engineering design of an industrial or advanced team project. Elements of ethics and professionalism in engineering practice are integrated into the project experience. The project will include application of relevant engineering codes and standards, as well as realistic constraints. Design achievements are demonstrated with written reports, and oral presentation, and professional standards and ethics examinations. Prerequisites: CHEG 3013 and CHEG 3023 and CHEG 3043 and CHEG 3063.

CHEG 4482 Senior Design and Professionalism - II: 2 semester hours.
A continuation of CHEG 4472 with required design modifications of the team projects necessary to produce a working prototype of the designs initiated in Senior Design and Professionalism I. Design project deliverables include an oral presentation, as well as a final written report. Professionalism education will, and a formal demonstration of prototype, or model, of the design. Elements of professionalism reinforce the importance of professional engineering ethics, corporate culture, life-long learning, and globalization. Prerequisites: CHEG 4472.

CHEG 4993 Independent Study: 1-3 semester hour.
Readings, research and/or field work on selected topics. This course is intended as a curriculum supplement for highly motivated students with special areas of interest. An individualized course of study, planned by student and advisor, is executed under the direction of the advisor.

CHEG 5013 Advanced Reaction Engineering: 3 semester hours.
Rates and mechanisms of chemical reactions. Thermo and catalytic reactions both homogeneous and heterogeneous with applications. Applications to design of new materials.

CHEG 5023 Microelectronics Materials: 3 semester hours.

CHEG 5033 Environmental Processes: 3 semester hours.

CHEG 5043 Remediation Technologies: 3 semester hours.

Chemistry (CHEM)

Courses

CHEM 1011 Inorganic Chemistry Laboratory I: 1 semester hour.
A general laboratory course covering aspects of qualitative and quantitative analysis and determination of chemical and physical properties. Prerequisites: CHEM 1013 (may be taken concurrently) or CHEM 1033 (may be taken concurrently) or MATH 1113 (may be taken concurrently).

CHEM 1013 General Inorganic Chemistry I: 3 semester hours.
This course is designed for non-majors and non-minors. This first semester course entails exploration of the fundamental concepts, laws and theory of chemistry through study of the states of matter. A descriptive view of the periodic chart, chemical properties, reactions, and chemical bonding theories and stoichiometry. Prerequisites: MATH 1113. Co-requisite: MATH 1113.

CHEM 1021 Inorganic Chemistry Laboratory II: 1 semester hour.
The second semester continuation of CHEM 1011. A general laboratory course covering aspects of qualitative and quantitative analysis and determination of chemical and physical properties. Prerequisites: MATH 1113 or MATH 1115 and CHEM 1043 (may be taken concurrently) or CHEM 1034 (may be taken concurrently).

CHEM 1023 General Inorganic Chemistry II: 3 semester hours.
This course is designed for non-majors and non-minors. This second semester course includes theories of acids, bases and salts. Elementary concepts of chemical kinetics, thermodynamics, equilibria, electrochemistry and redux reactions. An introduction to organic chemistry and selected topics. Prerequisites: MATH 1113 and (CHEM 1013 or CHEM 1033).

CHEM 1032 General Inorganic Chemistry Laboratory I: 2 semester hours.
For students majoring or minor in chemistry. A general laboratory course covering aspects of volumetric and gravimetric analysis, qualitative analysis, determination of chemical and physical properties, and chemical synthesis. Prerequisites: MATH 1113 (may be taken concurrently) or MATH 1115 (may be taken concurrently) and CHEM 1033 (may be taken concurrently).
CHEM 1033 General Inorganic Chemistry: 3 semester hours.
For students majoring or minoring in chemistry. Theory of matter and concepts of measurement, atoms, molecules and ions. Stoichiometry and chemical calculations, reactions in aqueous solutions, kinetics of gases, thermo-chemistry, atomic structure, electron configurations and chemical bonds.
Prerequisites: MATH 1113 or MATH 1115.

CHEM 1034 Chemistry for Engineers: 4 semester hours.
Fundamental and Physical principles in chemistry, bonding, thermodynamics and kinetics with emphasis to engineering applications.
Prerequisites: CHEM 1033 or CHEM 1013.

CHEM 1042 General Inorganic Chemistry Laboratory: 2 semester hours.
For students majoring or minoring in chemistry. A continuation of CHEM 1032. General laboratory course covering aspects of volumetric, gravimetric and qualitative analyses; determination of chemical and physical properties, and chemical synthesis.
Prerequisites: MATH 1113 or MATH 1115 and CHEM 1043 (may be taken concurrently).

CHEM 1043 General Inorganic Chemistry: 3 semester hours.
For students majoring or minoring in chemistry. A continuation of CHEM 1033. Bonding theory and molecular structure, intermolecular forces properties of solutions, chemical kinetics, chemical equilibrium, acid-based equilibria, thermodynamics, electrochemistry and nuclear chemistry and introduction to organic chemistry.
Prerequisites: MATH 1113 and CHEM 1033.

CHEM 1051 General Inorganic Chemistry Laboratory: 1 semester hour.
A laboratory course in general chemistry for students in the health sciences.
Prerequisites: CHEM 1053 (may be taken concurrently).

CHEM 1053 Introduction to General Chemistry: 3 semester hours.
An introductory course to essential chemical principles including atoms, atomic structure, molecules, compounds, elementary stoichiometry, and calculations, type of chemical reactions and fundamental principles. The interpretation and evaluation of case studies to develop fundamental knowledge and skills. This course will require a fair amount of writing and teamwork. For health science and nonmajors.

CHEM 1063 Survey of Organic Chemistry and Biochemistry: 3 semester hours.
A course in general organic chemistry and biochemistry for students in health sciences.
Prerequisites: CHEM 1053.

CHEM 2012 Quantitative Analysis: 2 semester hours.
Introduction to the principles and techniques of volumetric and gravimetric analysis employing modern instrumentation. Techniques include potentiometric, spectral-photometric, precipitation, electrochemical, and separation methods.
Prerequisites: CHEM 1033 and CHEM 1042 and CHEM 1043.

CHEM 2032 General Organic Chemistry Laboratory I: 2 semester hours.
A laboratory course including qualitative and quantitative investigations focusing on preparation and characterization of organic compounds.
Prerequisites: CHEM 2033 (may be taken concurrently).

CHEM 2033 General Organic Chemistry I: 3 semester hours.
For chemistry majors and minors, chemical engineering, and science majors. Electronic structure and bonding, introduction to organic compounds, reactions of alkenes, stereochemistry, reactions of alkynes, electron delocalization and resonance, reaction of dienes, substitution and elimination reactions.
Prerequisites: CHEM 1043.

CHEM 2042 General Organic Chemistry Laboratory II: 2 semester hours.
This is a continuation of CHEM 2032.
Prerequisites: CHEM 2043 (may be taken concurrently).

CHEM 2043 General Organic Chemistry II: 3 semester hours.
For chemistry majors and minors, chemical engineering, and science majors. A continuation of CHEM 2033. Substitution and elimination reactions, spectroscopic identification of organic compounds, reactions of substituted benzenes, reactions of carbonyl compounds, bioorganic compounds and special topics in organic chemistry.
Prerequisites: CHEM 2033.

CHEM 2112 Quantitative Analysis Laboratory: 2 semester hours.
This course is a continuation of the CHEM 2012.
Prerequisites: CHEM 2042 and CHEM 2012 (may be taken concurrently).

CHEM 3023 Special Topics in Chemistry w/ revolving themes forensic science/emerging areas of interests in Chem: 3 semester hours.
Special Topics in Chemistry with revolving themes around forensic science and emerging areas of interests in Chemistry and Technology.
Prerequisites: CHEM 2043.

CHEM 3413 Physical Chemistry: 3 semester hours.
A rigorous treatment of thermodynamics (Laws), thermo-chemistry, application of thermodynamic laws to gases (ideal and real), chemical equilibria, ionic equilibria, and electrochemistry.
Prerequisites: CHEM 1043 and MATH 1124.
CHEM 3422 Physical Chemistry Laboratory: 2 semester hours.
A laboratory course including experimental studies in chemical thermodynamics, equilibria, chemical kinetics, transport properties, spectroscopy, and molecular structure.
Prerequisites: CHEM 3413 (may be taken concurrently).
Co-requisite: CHEM 3413.

CHEM 3423 Physical Chemistry: 3 semester hours.
Prerequisites: MATH 2043 and CHEM 3413.

CHEM 3432 Physical Chemistry Laboratory: 2 semester hours.
This course is a continuation of CHEM 3422.
Co-requisite: CHEM 3423.

CHEM 4001 Journal Reading and Chemical Literature: 1 semester hour.
Initial instruction in the methodology and practice of efficient use of the chemical literature. Detailed study of recent developments in chemistry. Designed to develop and stimulate research attitudes.

CHEM 4023 Forensic Chemistry: 3 semester hours.
Introduction to forensic science, chemical evidence handling, analysis and drug classification. Sampling techniques in forensic chemistry.
Prerequisites: CHEM 2043.
Co-requisite: CHEM 4033.

CHEM 4032 Forensic Chemistry Laboratory: 2 semester hours.
Drug identification and confirmatory tests using spectroscopic techniques that include HPLC, GC, ICP/ AES, FTIR. Sample handling and storage.
Prerequisites: CHEM 4023 (may be taken concurrently) CHEM 4053.

CHEM 4033 Biochemistry: 3 semester hours.
Prerequisites: CHEM 2033 and CHEM 2043.

CHEM 4042 Biochemistry Laboratory: 2 semester hours.
Experiments in basic methodology for the isolation, purification and characterization of carbohydrates, lipids, proteins, nucleic acids and enzymes from natural products.
Prerequisites: CHEM 4033 (may be taken concurrently).
Co-requisite: CHEM 4033.

CHEM 4051 Research: 1 semester hour.
Library and laboratory work on selected problems.

CHEM 4052 Instrumental Analysis Laboratory: 2 semester hours.
Laboratory course that includes experimental applications of spectroscopy, electro-analytical methods, and chromatography.
Co-requisite: CHEM 4053.

CHEM 4053 Instrumental Analysis: 3 semester hours.
An introduction to the theory and application of modern instrumentation and techniques to the analysis of chemical systems. Includes interpretive spectroscopy, computer-assigned experimentation, and the use of the chemical literature.
Prerequisites: CHEM 3413.

CHEM 4061 Research: 1 semester hour.
Library and laboratory work on selected problems.

CHEM 4063 Inorganic Chemistry: 3 semester hours.
Modern atomic theory and the Periodic System, valence and bonding. The constitution of inorganic compounds; coordination chemistry and ligand field theory. The chemistry of nonmetals including polyacids, peracids and hydrides. Reactions in non-aqueous systems. Some interstitial and nonstoichiometric compounds. Radioactivity and atomic integration.
Prerequisites: CHEM 3413.

CHEM 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics.

CHEM 5013 Research: 3 semester hours.
Problems for investigation may be selected from one of the following fields of Chemistry: 1. Analytical; 2. Biochemistry; 3. Inorganic; 4. Organic; and 5. Physical.

CHEM 5023 Research: 1-3 semester hour.
Problems for investigation may be selected from one of the following fields of Chemistry: 1. Analytical; 2. Biochemistry; 3. Inorganic; 4. Organic; and 5. Physical.
CHEM 5026 Research: 6 semester hours.
Problems for investigation may be selected from one of the following fields of chemistry: 1. Analytical; 2. Biochemistry; 3. Inorganic; 4. Organic; and 5. Physical.

CHEM 5313 Advanced Analytical Chemistry: 3 semester hours.
Fundamental principles and investigation of chemical reactions as they relate to application of classical and modern instrumental methods. Focuses on the processes occurring in sampling, separation and quantitative measurement emphasizing chemical concepts.
Prerequisites: CHEM 5783.

CHEM 5322 Instrumental Lab: 2 semester hours.
An integrated laboratory that uses modern instrumentation to analyze complex chemical systems. Theories and principles encountered in CHEM 5313 and CHEM 5323 will provide the basis for bulk, surface, and interfacial analysis at the atomic and molecular levels.
Prerequisites: CHEM 5313 and CHEM 5323.

CHEM 5323 Instrumental Analysis: 3 semester hours.
Fundamental principles and theories underlying modern instrumental methods and techniques for analysis of complex systems. Atomic and molecular level characterization of surfaces, interfaces, and bulk systems will be emphasized.
Prerequisites: CHEM 5783.

CHEM 5402 Advanced Organic Chemistry: 2 semester hours.
A review of elementary Organic Chemistry with an extension of more advanced topics. Includes assigned subject materials.

CHEM 5414 Identification of Organic Compounds: 4 semester hours.
The separation and identification of pure organic compounds and mixtures.

CHEM 5442 Polymer Chemistry Laboratory: 2 semester hours.
A laboratory course in polymer chemistry focusing on characterization and synthesis of polymers and copolymer systems.

CHEM 5443 Polymer Chemistry: 3 semester hours.
Presentation of polymer concepts including polymerization and copolymerization processes, nomenclature, classifications, stereochemistry, structure-property relationships and morphology.

CHEM 5534 General Biochemistry: 4 semester hours.
A basic and extension course designed for graduate students planning to major or minor in Biochemistry or related fields and who require more than an elementary knowledge of the subject.

CHEM 5613 Advanced Inorganic Chemistry: 3 semester hours.
Consideration of important aspects of modern inorganic chemistry. Application of thermodynamics and kinetics in inorganic chemistry; practical and potential applications of inorganic systems.

CHEM 5783 Advanced Physical Chemistry: 3 semester hours.
A lecture course dealing with advanced topics of special interest in modern physical chemistry in areas including experimental and theoretical thermodynamics, chemical kinetics, collision and transition state theories, atomic and molecular spectra, quantum mechanical systems, photochemistry, structure of crystals and liquids, surface chemistry, macro-molecules, and gas phase reactions.

CHEM 5993 Independent Study: 1-3 semester hour.
Individual studies in advanced chemistry, reading, literature research/analysis/problem solving/writing research reports on selected topics in advanced chemistry.

Chinese (CHIN)

Courses

CHIN 1013 Elementary Chinese I: 3 semester hours.
Practice in listening, speaking, reading, and writing skills in Chinese to acquire elementary vocabulary and structures and a general knowledge of Chinese culture.

CHIN 1023 Elementary Chinese II: 3 semester hours.
Continuation of acquisition of language skills and culture introduced in Elementary Chinese I.
Prerequisites: CHIN 1013.

CHIN 2013 Intermediate Chinese I: 3 semester hours.
Continuation of acquisition of language skills and culture presented in Elementary Chinese I and II.
Prerequisites: CHIN 1023.

CHIN 2023 Intermediate Chinese II: 3 semester hours.
Continuation of acquisition of language skills and culture on an intermediate level with emphasis on reading, speaking, grammar, writing, and translation.
Prerequisites: CHIN 2013.
CHIN 3333 Special Topics in Chinese: 3 semester hours.
Course offers a critical examination of a topic within the instructor's field of specialization. Emphasis on advanced study allows students to demonstrate the capacity to bring the information, skills, and ideas to bear on a topic or project in Chinese. May be repeated for up to 6 semester credit hours. Prerequisite: CHIN 2023 with a C or above. Prerequisites: CHIN 2023.

Civil Engineering (CVEG)

Courses

CVEG 1011 Intro Engineering & Comp Sci: 1 semester hour.
Introduction to basic engineering, computer science and technology concepts. Students will become aware of the various disciplines of engineering, computer science and technology, ethical and professional responsibilities in these fields, creativity and design. Co-requisite: CVEG 1021.

CVEG 1021 Introduction to Civil Engineering Lab: 1 semester hour.
Introduction to Civil Engineering as a profession, identification and discussion of the sub-fields of Civil Engineering, ethical responsibilities in engineering practice, concepts of design, laboratory demonstrations and problem-solving exercises that emphasize critical thinking skills. Leadership principles, the importance of professional licensure, life-long learning and membership in ASCE are discussed. Co-requisite: CVEG 1011.

CVEG 2001 Emerging Issues in Civil Engineering: 1 semester hour.
An overview of emerging issues and state-of-the-art technologies commonly used in Civil Engineering practice. Computer-aided drafting (CAD) software and techniques are presented. Basic concepts in leadership, teamwork and team building are emphasized. Problem solving and the communication of engineering solutions using appropriate engineering design documentation and drawings, and the importance of professional licensure are reinforced. Prerequisites: CVEG 1011 and CVEG 1021.

CVEG 2043 Engineering Mechanics I: 3 semester hours.
Fundamental concepts and principles; vector algebra and applications; equilibrium of particles and rigid bodies in two and three dimensions, moments and couples; distributed forces, centroids, moments of inertia, friction, introduction to analysis of structures. Prerequisites: PHYS 2513.

CVEG 2053 Engineering Mechanics II: 3 semester hours.
Kinematics and kinetics of particles and of rigid bodies as applied to engineering problems; Newton's laws of motion; work and energy; impulse and momentum; translations; rotation; plane motion; motion about a point; general motions; and periodic motions. Prerequisites: CVEG 2043.

CVEG 2061 Materials and Dynamics Lab: 1 semester hour.
Determination of mechanical properties of engineering materials. Tensile testing, torsion, bending and deflection; standard testing methods and procedures; instrumentation and data acquisition techniques (for example using strain gages). Dynamics topics include: projectiles, conservation principles, linear and angular momentum, mass moment of inertia and vibration. Prerequisites: ENGL 1133 or ENGL 1143 and CVEG 2043. Co-requisite: CVEG 2063.

CVEG 2063 Mechanics of Materials: 3 semester hours.
Mechanical behavior of engineering materials, plane stress, plane strain, stress-strain relationship, shear and moment, torsion, flexural, column and combined loadings. Introduction to deflections; concepts of stresses at a point; stresses in pressured containers; and theories of failures and thermal stresses. Prerequisites: (CVEG 2043 or CVEG 2454) and MATH 2024.

CVEG 2081 Surveying and Geospatial Concepts: 1 semester hour.
Introduction to plane surveying: leveling, horizontal distance and measurements, vertical and horizontal angles, azimuths and bearings, traverse calculations, earthwork and volume computations, stadia, topographical surveys, construction boundaries, coordinate systems, trigonometry applications in civil engineering and pertinent computer software. The Global Positioning System (GPS) and Geographic Information Systems (GIS) are introduced. Prerequisites: MATH 1124 and CVEG 2001.

CVEG 2454 Statics and Dynamics: 4 semester hours.
Fundamental concepts; equilibrium of particles and rigid bodies; centroids; moments of inertia; friction; introduction to analysis of structures. Kinematics and Kinetics of particles and of rigid bodies; equations of motion; work and energy; impulse and momentum. Prerequisites: PHYS 2513.

CVEG 3023 Geotechnical Engineering: 3 semester hours.
Physical and mechanical properties of soil; moisture and its movement in soil; moisture density relationships; soil classification; settlement; consolidation; permeability; testing of soil physical and mechanical properties; and laboratory sessions. Prerequisites: CVEG 2063 and CVEG 2081 and CVEG 3031.
**CVEG 3031 Concrete and Steel Laboratory: 1 semester hour.**
Hands-on experience in the design, fabrication and construction of concrete and steel prototypes and models, such as concrete beam, concrete canoe and steel trusses. Application of engineering mechanics and materials laboratory techniques and methods, testing, analysis of experimental results, and report writing. 
Prerequisites: CVEG 2063 and CVEG 2061.

**CVEG 3043 Environmental Engineering: 3 semester hours.**
Review of the environmental chemistry and biology, introduction to environmental science and engineering, material balance, reaction kinetics, reactor design, introduction to solid and hazardous waste, water and wastewater quality characteristics, laboratory analysis of water and wastewater samples. Additional prerequisite: BIOL elective or course approved by the Department Head. 
Prerequisites: CHEM 1034 and CHEM 1021.

**CVEG 3051 Professional Engineering I: 1 semester hour.**
Fundamentals of engineering, related science subjects, including computers, engineering economics, ethics, fluid mechanics, mathematics, probability and statistics, statics, mechanics of materials. Civil and Environmental Engineering topics include: environmental, water resources, structures, materials, geotechnical, transportation, construction management and surveying. 
Prerequisites: MATH 3023 and MATH 4173 and CVEG 3023 and CVEG 3063 and CVEG 3043 and CVEG 3053 and CHEG 2003. 
Co-requisites: CVEG 3083, CVEG 4013.

**CVEG 3053 Transportation Engineering: 3 semester hours.**
Principles of transportation engineering. Topics include: basic concepts in the planning, operation, management, and design of air, surface, and water transportation modal facilities; an introduction into the major aspects of regulatory requirements and economics related to transportation issues; and laboratory sessions in the various sub-areas of transportation engineering. 
Prerequisites: MATH 2043 (may be taken concurrently) and CHEG 2003 and CVEG 2081 and COMM 1003.

**CVEG 3063 Hydraulics: 3 semester hours.**
Fluid statics; pressure on submerged bodies; continuity equation; Bernoulli equation; principles of momentum and energy; fundamentals of hydraulic modeling; open channel flow; pressure conduit flow; flow measurement; laboratory sessions on selected topics. 
Prerequisites: CVEG 2043.

**CVEG 3073 Structural Analysis: 3 semester hours.**
Analysis of determinate structures; reactions, member forces of trusses, shears and bending moments of beams and frames; influence lines; moving loads; deflections; analysis of indeterminate structures by approximate method and energy method; computer application. 
Prerequisites: CVEG 2063.

**CVEG 3083 Steel Design: 3 semester hours.**
Analysis and design of tension and compression members, rolled steel beams, plate girders, riveted, welded, and pinned joints; and an introduction to design of trusses and multistory frames. 
Prerequisites: CVEG 3073.

**CVEG 3156 Civil Engineering Internship I: 6 semester hours.**
An internship program of work experience with an approved engineering oriented firm, agency or consulting firm or engineering public service agency serving the civil engineering profession. A comprehensive written report of the work-learning experience is required.

**CVEG 4013 Reinforced Concrete: 3 semester hours.**
Properties of concrete and reinforcement, design methods, codes, load, flexure, shear, bonds, and deflections, analysis and design of beams and columns; introduction to design of footings, slabs, and retaining walls; and introduction to computer-aided design. 
Prerequisites: CVEG 3073.

**CVEG 4021 Geotechnical Engineering Design Laboratory: 1 semester hour.**
Site investigation methods and the development of soil exploration reports, design of retaining structures, slope stability; design of shallow and deep foundations. 
Prerequisites: CVEG 3023.

**CVEG 4043 Environmental Engineering Design: 3 semester hours.**
Synthesis of environmental engineering fundamentals into an integrated system design which includes the design of physical, chemical, and biological unit operations and processes in water and wastewater treatment. 
Prerequisites: CVEG 3043.

**CVEG 4053 Transportation Engineering Design: 3 semester hours.**
Introduction of the transportation design process through a series of comprehensive transportation design projects. Emphasis is placed on the utilization of existing facilities and creation of efficient new facilities through transportation systems management techniques. Energy, environment, mobility and community impacts are considered as measures of effectiveness in the design process. 
Prerequisites: CVEG 3053.

**CVEG 4063 Water Resources Engineering: 3 semester hours.**
Control and utilization of water; flood control; water distribution systems; open channel flows; and hydraulic structures. 
Prerequisites: CVEG 3063.
CVEG 4072 Systems Engineering and Uncertainty: 2 semester hours.
Introduction to systems analysis; problem modeling; optimization methods; linear programming; mixed integer linear programming; dynamic programming; multi-objective optimization; formulation and solution of engineering optimization problems with uncertainty factors and the evaluation of design solutions via sensitivity and risk analysis.
Prerequisites: MATH 3023 and CVEG 3053.

CVEG 4093 Systems Engineering: 3 semester hours.
Introduction to systems analysis and design; problem modeling; optimization; linear programming; dynamic programming; network analysis; critical path; economic analysis; and decision theory.
Prerequisites: MATH 3023 and CVEG 3053.

CVEG 4103 Special Topics: 3 semester hours.
Selected current and emerging topics in Civil Engineering depending on need determined by the department.

CVEG 4113 Energy and Environment: 3 semester hours.
Introduction to climate and climate change, the carbon cycle, air and water pollution from energy systems, impacts and implications of energy use for human health, current energy and energy-related environmental policies to foster the development of sustainable energy technologies, fuels, and practices, energy alternatives for the future and their impact on the local and global environment.

CVEG 4123 Hydrology: 3 semester hours.
Hydrologic cycle; precipitation; runoff; infiltration; hydrological analysis; unit hydrograph; statistical methods; surface and groundwater; flood forecasting; flood routing; flood control; and computer applications.
Prerequisites: CVEG 3063.

CVEG 4141 Engineering Management and Ethics: 1 semester hour.
Introduction to engineering project development and management with a particular emphasis on project systems integration and process execution. Ethical dimensions in Engineering [and economic] decision making with regard to code of ethics, professional liability sustainability and sustainable design, will be introduced.
Prerequisites: CVEG 3053.

CVEG 4143 Engineering Construction: 3 semester hours.
Modern construction methods; history, organization management, planning, and machinery; importance of working drawings programming and economy of good planning; and importance of inspection and checks, including visits to worksites and reports on such visits.
Prerequisites: CVEG 3031.

CVEG 4156 Civil Engineering Internship II: 6 semester hours.
An internship program of advanced work experience with an approved engineering oriented firm, agency, or consulting firm, or engineering public service agency providing practical work experience of the profession on the job. A comprehensive written report of the work-learning experience is required.

CVEG 4223 Waste Management: 3 semester hours.
Evolution, legislative trends and regulations for solid and hazardous waste management; sources, characteristics and engineering principles of solid and hazardous waste; and treatment and disposal methods for solid and hazardous wastes.
Prerequisites: CVEG 3043.

CVEG 4233 Water Quality Modeling: 3 semester hours.
Water quality overview; movement of contaminants in the environment; contaminant interactions with soil, air, and water; and mathematical models to describe the movement of contaminants in various bodies of water including rivers, lakes, oceans and groundwater.
Prerequisites: CVEG 3043.

CVEG 4243 Fundamentals of Air Pollution and Control: 3 semester hours.
Fundamentals of air pollution; regulatory aspects; effects and sources of air pollution; atmospheric physics and chemistry; simple air quality models; and basics of air pollution control.
Prerequisites: CVEG 3043.

CVEG 4472 Senior Design and Professionalism - I: 2 semester hours.
This is the first course of a two-semester capstone experience (CVEG 4482 must immediately follow 4472 or sequence must restart wit 4472) involving engineering design of an industrial or advanced team project. Elements of ethics and professionalism in engineering practice are integrated into the project experience. The project will include application of relevant engineering codes and standards, as well as realistic constraints. Design achievements are demonstrated with written reports, and oral presentation, and professional standards and ethics examinations.
Prerequisites: CVEG 3023 and CVEG 3043 and CVEG 3053 and CVEG 3063 and CVEG 3073.

CVEG 4482 Senior Design and Professionalism - II: 2 semester hours.
A continuation of CVEG 4472 with required design modifications of the team projects necessary to produce a working prototype of the designs initiated in Senior Design and Professionalism I. Design project deliverables include an oral presentation, as well as a final written report. Professionalism education will, and a formal demonstration of prototype, or model of the design. Elements of professionalism reinforce the importance of professional engineering ethics, corporate culture, life-long learning, and globalization.
Prerequisites: CVEG 4472.
CVEG 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work in selected topics.

CVEG 5123 Structural Dynamics: 3 semester hours.
Single and multi-degree systems, linear nonlinear systems, damped or forced random vibrations, self-introduced vibrations, numerical and phase plane solutions, modal analysis, formulation by flexibility and stiffness matrices, response spectra, and computer applications.

CVEG 5133 Physical/Chemical Unit Operations in Water and Wastewater Treatment: 3 semester hours.
Physical and chemical processes used in the water and wastewater treatment and applications of these processes to other environmental media. Application of the principles of chemistry, rate processes, and process engineering to analyze and design water and wastewater treatment and other major environmental systems.

CVEG 5143 Hazardous Waste Management: 3 semester hours.
Environmental legislation, regulations concerning the identification, storage, transport, and disposal of hazardous wastes. Treatment processes; control mechanisms; landfill technology and disposal practices.

CVEG 5153 Biological Unit Operations in Environmental Engineering: 3 semester hours.
Major concepts of biology and microbiology as they apply to biological processes. Theory and design of various biological unit operations in Environmental Engineering. The course will be focused on biological processes used in wastewater treatment; however the application of these processes to other environmental media will be discussed.

CVEG 5163 Air Pollution Engineering: 3 semester hours.
The nature of the air pollution problem and its effects on the public at large. Present legal and engineering controls to combat pollution. Techniques of air sampling and testing.

CVEG 5173 Finite Element Analysis: 3 semester hours.
Using numerical integration, Galerkin-weighted residual and variation approaches to formulate and solve one-and-two dimensional problems in solid mechanics, fluid flow, heat transfer, and electro-magnetism.

CVEG 5183 Energy and Environmental Sustainability: 3 semester hours.
Energy and the environment; energy and climate change; environmental impacts of energy production and use; concepts of sustainability in energy generation technologies of the future; energy conservation, and other development in the new energy economy.

CVEG 5213 Pretressed Concrete Design: 3 semester hours.
Principles and concepts of design in pretressed concrete including materials behavior, prestress loss, elastic and ultimate strength analyses for flexure, shear, torsion, bond and deflection.

CVEG 5313 Management of Engineering Projects: 3 semester hours.
The course is divided into six components: planning, organizing, financing, execution, and evaluation. It uses the principles of engineering management as well as the tools, skills, and knowledge necessary to successfully manage projects and processes.

CVEG 5613 Transportation Asset Management: 3 semester hours.
This course covers the principles, techniques, and tools used to managing transportation assets; reviews the most cutting-edge strategies designed to help agencies advance the management of their transportation assets; provides an understanding performance measures and concepts related to cost-effective resource allocation among competing asset needs; and applies a strategic framework to produce an action plan for transportation related agencies.

CVEG 5713 Optimization and Uncertainty Analysis: 3 semester hours.
Formulation and solution of engineering optimization problems with uncertainty factors; inclusion of sensitivity and risk analyses in optimization problems Prerequisites: GNEG 5023.

CVEG 5753 Geospatial Information Management: 3 semester hours.
Introduction and use of geospatial information systems in engineering management. Geographic Information Systems, use of databases, geocoding, geospatial analysis in the context of a project.

CVEG 5763 Water Resources Systems: 3 semester hours.
Formulation of mathematical representations of complex water resources systems and their evaluation using linear programming, dynamic programming, non-linear programming or by the use of formal heuristics. Sample models include: optimal sewer design, optimal capacity expansion of projects, and reservoir systems planning and management. Prerequisites: GNEG 5023.

Clinical Psychology (CPSY)

Courses

CPSY 7623 Biological Bases of Behavior: 3 semester hours.
The study of relationships among biological systems (e.g., neurological, cardiovascular, endocrine) and psychological functioning (e.g., sensory and perception, memory, learning, emotion, cognition) in the context of normal and abnormal behavior. Review of current theory and research procedures is provided.
CPSY 7631 Professional Issues in Clinical Psychology: 1 semester hour.
This course is a proseminar series aimed at exposing students to historical, current, and emerging research and professional issues in clinical psychology.

CPSY 7653 Thesis I: 3 semester hours.
Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7663 Thesis II: 3 semester hours.
Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7673 Thesis III: 3 semester hours.
Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7683 Thesis IV: 3 semester hours.
Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7703 Cognitive Psychology: 3 semester hours.
This course addresses how people acquire the ability to know and think, reason, and determine logical outcomes. Cognition is the ability to integrate higher cortical functions in order to orient the self to their innate CNS abilities and how to use this resource to navigate the external world. Involved are basic intellect, emotional stability, appropriate communication and ethnocentric comprehension of one's environment and social situation. Relevant neureophysiology aspects of cognition are reviewed as well as the history and philosophy of cognitive psychology.

CPSY 7713 Social Psychology: 3 semester hours.
A critical foundation course, social psychology is a bridge discipline involving both group and individual dynamics. Started in the U.S. at the University of Chicago during the early 19th century, social psychology provided the forum for significant interdisciplinary studies during the Great Depression, the World Wars and beyond. Research on basic human interpersonal and intra-group and inter-group dynamics are presented (Hawthorne effect, primacy effect, stereotyping, physical attractiveness, attribution bias, social power, compliance, obedience, risky-shift phenomenon) as well as their impact on race relations, gender and sex issues, systems (family, school, community institutions) and peer relations. Enculturation, socialization, group influences (significant and generalized others), and the impact of social sanctions as well as collective and behavioral attribution processes are covered.

CPSY 7723 Foundations in Neuropsychology: 3 semester hours.
The study of relationships between brain functioning (e.g., memory, learning, cognition, perception and language comprehension and expression) and normal and abnormal behavior. Common neurological disorders and related diagnoses are reviewed, as well as assessment procedures used for diagnostic purposes. Child and adolescent functioning is emphasized. Review of current theory and research methodology is addressed. Course content is presented for non-neuroscience majors.

CPSY 7733 Child and Adolescent Development: 3 semester hours.
This course will delve into the behavior and mental processes of children and adolescents. It will focus on the biological, social, emotional, cognitive, intellectual and interpersonal developmental paths from infancy to adolescence, along with a review of the current best practice social and clinical strategies (parent-child relations, family and systems psychology). Research findings pertinent to ethnic minority youth will be explored in an attempt to balance mainstream resources. Integration of theory and practice will be fundamental. Models of abnormal and normal trajectories will be explored within the context of individual and cultural differences.

CPSY 7743 Professional Ethics: 3 semester hours.
The current American Psychological Association (APA) Ethical Principles of Psychology and Code of Conduct are discussed in detail including the General Principles and the Components of the Ethical Standards: (1) Resolving Ethical Issues; (2) Competence: (3) Human Relations: (4) Privacy Confidentiality: (5) Advertising other Public Statements: (6) Record Keeping Fees: (7) Education Training: (8) Research Publication; (9) Assessment: and (10) Therapy. Significant legal milestone and relevant cases (Tarasoff, Larry P. v. Riles, Youngberg v. Romeo, and Borwin v. Board of Education) are also discussed in detail.

CPSY 7753 Systems of Psychotherapy: 3 semester hours.
This course will include contemporary approaches in clinical psychology and a comprehensive treatment of the historical antecedents of selected theories and systems of psychology. It will also explore the theory, research and practice of major systems of psychotherapy including humanistic psychodynamic, behavioral cognitive, and family systems approach. The underlying assumptions about human nature and knowledge that form the foundation of these theories will also be examined with special consideration given to cultural issues throughout the course.

CPSY 7763 Child and Adolescent Psychotherapy: 3 semester hours.
This course equips students to become more competent in therapeutic work with children, adolescents, and their families by (a) presenting theoretical models of therapy, (b) teaching specific techniques in working with a wide range of problems that children and adolescents may experience, and (c) discussing ethical and other complex issues that come up in the course of providing therapy to children and adolescents.

CPSY 7773 Learning Theory & Clinical App: 3 semester hours.
The study of theoretical and procedural issues in basic learning mechanisms, in animals and humans, including classical and instrumental conditioning and social cognitive frameworks. Concept applications to relevant biological mechanisms and clinical interventions (e.g., behavior modification, systematic desensitization) are emphasized with particular attention to procedures implemented with children and adolescents. Coverage of parental and school consultation techniques is provided regarding behavior modification of children and adolescents. A review of research regarding applications of current theoretical models is presented.
**CPSY 7783 Developmental Psychology: 3 semester hours.**
This course focuses on the origins, maintenance, and change of behavior and cognition across the lifespan. The major theoretical issues that define the field of developmental psychology will be emphasized. The course will emphasize (a) how individuals actively contribute to their own development (b) the way development is shaped by aspects of the sociocultural context, and (c) how adaptive functioning is maintained in the presence of aging, injury, or trauma. Implications of these theoretical issues for understanding a typical development and optimizing everyday functioning will also be covered.

**CPSY 7793 Personality Psychology: 3 semester hours.**
The major theorists and theoretical constructs and how these concepts evolved over time into the basic psychological schools of personality: behavioral/behaviorism (including operant, classical, learning, cognitive and rational/emotive approaches); psychoanalytic/psychodynamics; and the humanistic approach will be taught. Theories of personality with emphasis on development within childhood and adolescence will be explored. Coverage of psychological, social and cultural factors impacting the adjustment of both normal and abnormal individuals will be taught. Assessment tools include the MMPI-A, Myers-Briggs-Type Indicator, Draw-A-Person techniques and various Thematic Apperception measures.

**CPSY 7803 Psychological Assessment I: 3 semester hours.**
This course begins the process of developing competence in psychological assessment, thereby providing a foundation for future clinical coursework, practica, and supervised work experiences. The course covers basic assessment of cognitive functioning; selected measures of psychosocial and emotional functioning; ethnic, cultural, and clinical issues associated with psychological assessment; case formulation and integrative report writing; and the principles of psychological measurement (including reliability, validity, norms and standard scores).

**CPSY 7813 Psychological Assessment II: 3 semester hours.**
This course covers basic personality assessment and grounds students in both traditional and behavioral approaches. From the traditional perspective, the course provides an overview of projective and objective personality assessment along with in-depth coverage of psychometrics and a range of overarching assessment issues, including the stability of behavior, validity of clinical judgement, and clinical versus statistical prediction. From the behavioral perspective, the course introduces the conceptual bases and applied implications of the behavioral approach and contrast it with the traditional approach. Basic clinical interviewing, use and interpretation of measures, and report writing are also emphasized.

**CPSY 7823 Practicum I: 3 semester hours.**
Provides supervised experience in the assessment, management and treatment of clients. Students work in the PV Psychological Clinic. Training includes interviewing and taking case histories, observations, and staff and case conferences.

**CPSY 7833 Practicum II: 3 semester hours.**
Provides supervised experience in the assessment, management and treatment of clients. Students work in the PV Psychological Clinic. Training includes interviewing and taking case histories, observations, and staff and case conferences.

**CPSY 7843 Practicum III: 3 semester hours.**
Provides supervised experience assisting psychologists in the assessment, management and treatment of clients. Students work the PV Psychological Clinic. Training includes interviewing and taking case histories, observations, and staff and case conferences.

**CPSY 7853 Practicum IV: 3 semester hours.**
Provides supervised experience in the assessment, management and treatment of clients. Students work in the PV Psychological Clinic. Training includes interviewing and taking case histories, observations, and staff and case conferences.

**CPSY 7863 Practicum V: 3 semester hours.**
Provides supervised experience in the assessment, management and treatment of clients. Students work in the PV Psychological Clinic or in an approved institutional setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing and taking case histories, observations, and staff and case conferences.

**CPSY 7873 Individual Psychotherapy: 3 semester hours.**
Centers on the clinical interview as a means of gathering relevant life data; defining problems, and resolving conflicts. Surveys the theory and use of the interview, particularly as related to various counseling theories.

**CPSY 7883 Psychopathology: 3 semester hours.**
This course will provide an in-depth review of a broad spectrum of psychopathological conditions defined in the DSM. The focus is on etiology, prevalence and incidence, signs and symptoms, and criteria for differential diagnosis. The emphasis is on comparing and contrasting different theoretical perspectives on each disorder, as well as reviewing the empirical literature in support of those theoretical perspectives.

**CPSY 7893 Multicultural Issues in Clinical Psychology: Theory, Research and Practice: 3 semester hours.**
This course surveys the research, theories, assessment and clinical practice of counseling with various racial/ethnic minority and gay/lesbian/bisexual populations in the United States. Special consideration is given to examining the intersection among race/ethnicity, sexual orientation, gender and class on psychological adjustment.

**CPSY 7913 Special Topics: 3 semester hours.**
A seminar designed to allow flexibility in doctoral student degree plans and to promote awareness and understanding of issues in Clinical Psychology as these develop.
CPSY 7933 History & Systems of Psychology: 3 semester hours.
This is an advanced philosophically oriented graduate seminar on the history of psychology and its theoretical systems, and their relations to contemporary psychology. Pertinent issues in the history and philosophy of science are addressed as well as current concerns. The course compares Western psychology in the 19th and 20th centuries with selected indigenous psychologies. Special attention is given to system of thought that have emerged since the founding of psychology as an empirical science.

CPSY 7943 Research Methods and Design in Clinical Psychology: 3 semester hours.
Development of research, design most useful to social sciences problems, descriptive systems for qualitative analysis; data collection methods such as observation, development of interview schedules, construction of questionnaires and socio-metric devices; validity and reliability.

CPSY 7953 Statistical Methods in Psychology: 3 semester hours.
This course is an introduction to descriptive and inferential statistics, and covers basic statistical and research concepts, graphical displays of data, measures of central tendency and variability, standardized scores, probability, hypothesis testing, normal distributions, confidence intervals, post hoc analysis, model assumptions, analysis of variance, repeated measures analysis, and analysis of covariance.

CPSY 7963 Advanced Statistical Techniques: 3 semester hours.
Multivariate statistical techniques including multiple regression, logistic regression, discriminate analysis, multivariate analysis of variance, canonical correlation, factor analysis, cluster analysis, and multi-dimensional scaling.

CPSY 7970 Comprehensive Research Project and Exam: 0 semester hours.
In lieu of the traditional written comprehensive exam, students must propose and demonstrate competency in a project intended to be substantial work product that demonstrates independence and competence. Projects may be clinical demonstrations, research/methodology reviews, or program evaluations and must result in APA-formatted document submitted for publication in a non-pay, peer-reviewed, psychology journal. Projects typically will be done following the completion of the master's thesis and before the dissertation proposal defense.
Prerequisites: CPSY 7623 and CPSY 7943 and CPSY 7953 and CPSY 7753 and CPSY 7963 and CPSY 7883 and CPSY 7803.

CPSY 8913 Dissertation I: 3 semester hours.
Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8923 Dissertation II: 3 semester hours.
Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8933 Dissertation III: 3 semester hours.
Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8941 Internship I: 1 semester hour.
Placement in an applied clinical setting for a full year (e.g., September 1 through August 31), under the supervision of a licensed psychologist. APA-approved sites are preferred. Student enroll in this course is during the first semester of the internship year.
Prerequisites: CPSY 7823 and CPSY 7833.

CPSY 8943 Dissertation IV: 3 semester hours.
Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8946 Internship I: 6 semester hours.
Internship is a full-time placement at a site approved and accredited by the American Psychological Association.

CPSY 8951 Internship II: 1 semester hour.
Placement in an applied clinical setting for a full year (e.g., September 1 through August 31), under the supervision of a licensed psychologist. APA-approved sites are preferred. Student enroll in this course is during the second semester of the internship year.
Prerequisites: CPSY 8941.

CPSY 8961 Internship III: 1 semester hour.
Placement in an applied clinical setting for a full year (e.g., September 1 through August 31), under the supervision of a licensed psychologist. APA-approved sites are preferred. Student enroll in this course is during the summer semester of the internship year.
Prerequisites: CPSY 8951.

CPSY 8986 Internship II: 6 semester hours.
Internship is a full-time placement at a site approved and accredited by the American Psychological Association.

Communications (COMM)

Courses

COMM 1003 Fundamentals of Speech Communication: 3 semester hours.
This course is designed to introduce students to fundamental communication theories, principals and practices. Students will develop public speaking skills, interpersonal skills, and practical applications.

COMM 1601 Forensics Practicum: 1 semester hour.
A practice course for students participating in university forensics or speech contest activities. May be taken for one hour credit per semester for a total of three semester credit hours.
COMM 1713 Introduction to Mass Communication: 3 semester hours.
A basic theory course encompassing the history and functions of mass media and the communication process.

COMM 1733 Basic Digital Video Production: 3 semester hours.
An introduction to basic remote digital video production to include practical exercises illustrating key concepts of reproduction, production, and postproduction.

COMM 2513 Principles of Writing for the Discipline: 3 semester hours.
This is a principle of writing course for communication majors, covering source citation, style, research, and content. The course will focus on how to write research papers for both qualitative and quantitative audiences. Students will learn the principles of argument, persuasion, and informative writing for the communication discipline.
Prerequisites: ENGL 1133 or ENGL 1143.

COMM 2523 Broadcast Writing: 3 semester hours.
Writing for television and radio with emphasis on acquiring the skills needed in gather and producing information as news. Begins with practical application of basic principles of broadcast news writing.
Prerequisites: COMM 1713 and (ENGL 1133 or ENGL 1143).

COMM 2533 Screen Writing: 3 semester hours.
Basic approaches for conceiving and writing film and contemporary television scripts. The class will cover pitches, treatments, screenplays, and synopses. Students will be required to write a film and study story structure, arc, and climax.
Prerequisites: COMM 1713 and (ENGL 1133 or ENGL 1143).

COMM 2543 News Writing and Reporting: 3 semester hours.
Fundamentals of news writing for print identification of newsworthy data, methods of writing leads, and news and feature stories for publication.
Prerequisites: COMM 1713 and (ENGL 1133 or ENGL 1143).

COMM 2553 Communication, Globalization, International Media: 3 semester hours.
This course will allow students access to selected forms of international media and professional development both in class and while participating in an international study abroad experience.
Prerequisites: COMM 1003.

COMM 2603 Interpersonal Communication: 3 semester hours.
A study of human symbolic behavior and its effects on people. Emphasizes practical and theoretical implications of face-to-face interaction in social, business, and professional settings.
Prerequisites: COMM 1003.

COMM 2613 Argumentation and Debate: 3 semester hours.
An intensive study of the advocacy system with special emphasis on issues identification, use of evidence, and logical proof. Extensive practice in argumentative speaking using current DEDA, NDT, UIL debate topic.
Prerequisites: COMM 1003.

COMM 2623 Small Group Communication: 3 semester hours.
Emphasizes the role of oral communication in the dynamics of small group behavior. Group presentations focus on fact-finding, information-sharing, and problem-solving/decision-making processes.
Prerequisites: COMM 1003.

COMM 2633 Voice and Diction: 3 semester hours.
An analysis of the scientific aspects of oral communication: anatomy and physiology of the mechanisms of respiration, phonation, resonance, and articulation. Includes coverage of the International Phonetic Alphabet and an analysis of vowels and consonants and standards of pronunciation.
Prerequisites: COMM 1003.

COMM 2643 Media Literacy: 3 semester hours.
In this course, students develop their appreciation and analysis of creative artifacts in a variety of media, such as film, television, new media, and social media. Clips, screenings, and other examples familiarize students with a variety of cultures; prompt students’ consideration of different points of view; and provide a basis for critical, creative, and innovative written, oral and visual communication about works of art.
Prerequisites: ENGL 1123.

COMM 2703 Photojournalism: 3 semester hours.
Fundamentals of photographic theory and practice as a medium of communication. Experience in cameras, lenses, shutters, lighting, exposure, and development.
Prerequisites: COMM 1713.

COMM 2713 Visual Communication: 3 semester hours.
This course offers an introduction to the history, principles, theories, techniques, technologies, and applications of visual communication in a variety of media. Students will explore visual communication through critical analysis and application.
Prerequisites: COMM 1713.
COMM 2723 Copy and Editing Production: 3 semester hours.
Journalistic desk work, evaluating news copy, making good news judgment, copy editing of local wire news, headline writing, and fundamentals of page layout. 
Prerequisites: COMM 1713 and (ENGL 1133 or ENGL 1143).

COMM 3213 Media Management: 3 semester hours.
Focuses on management and its relationship to successful operation of newspapers, television and radio stations in a democratic, capitalistic framework. Covers the functions of advertising and public relations in relation to media. 
Prerequisites: (COMM 1013 and COMP 1003).

COMM 3513 Communication Law & Ethics: 3 semester hours.
Examines the idea of free speech as it has developed in the United States with attention to mass media law, including topics such as liberal, invasion of privacy and obscenity. In addition to studying media law, students will examine and discuss ethical issues that involve the media. The objective is to develop an understanding of the First Amendment and the role it plays in American society. 
Prerequisites: COMM 1713.

COMM 3523 Feature and Magazine Writing: 3 semester hours.
A study of techniques used for news gathering and writing for newspaper feature articles and magazines. A survey of freelance writing procedures. 
Prerequisites: COMM 2523 or COMM 2543.

COMM 3603 Persuasion: 3 semester hours.
A study of nature, necessity, and ethics of persuasion. Study of the organization and adaptation of persuasive techniques to achieve personal and public goals and extensive practice in the construction and presentation of persuasive speeches. 
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3643 Nonverbal Communication: 3 semester hours.
This course covers basic nonverbal communication theories and research. 
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3653 Gender Communication: 3 semester hours.
This course introduces students to contemporary communication theory and research on the interconnections between gender and communication. 
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3663 Intercultural Communication: 3 semester hours.
This course examines communication between individuals of different cultures and subcultures and explores practical guidelines for mitigating miscommunication across cultures. 
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3673 Communication and Conflict Management: 3 semester hours.
This course evaluates how organizations manage conflict and change in environment. It examines the parametric approaches used to design and implement strategic change in organizations; a theoretical and case study approach is presented for students to understand the communication strategies used to manage organizational crises. 
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3701 Communication Practicum: 1 semester hour.
Practical Communication experiences in radio-television production of student newspapers, sports information, news editing, public relations, advertising and/or speech communication public service. May be taken for one hour credit per semester for a total of three semester credit hours.

COMM 3713 Communication Technology: 3 semester hours.
A study of electronic process and applications in media. Emphasis on current and emerging technologies in telecommunications, radio, TV, satellite, fiber optics, and computer-mediated communication. 
Prerequisites: COMM 1713 COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543.

COMM 3723 Digital Video Production I: 3 semester hours.
An introductory study of current approaches and practices in digital video production utilizing combination of digital hardware and software for content development and broadcast in a variety of media. 
Prerequisites: COMM 1713 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3733 Television Studio Production: 3 semester hours.
An introductory level study of current television studio practices. This course encompasses content development, basic television system operation, and production elements. 
Prerequisites: COMM 1713 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3743 Principles of Advertising: 3 semester hours.
Growth, organization, and practices of the advertising industry. Consumer surveys, creative planning, and approaches to the development of advertising campaigns. 
Prerequisites: COMM 1713 and COMM 2513 or (COMM 2523 or COMM 2533 or COMM 2543).
COMM 3753 Principles of Public Relations: 3 semester hours.
Introduction to the field of public relations practice and dynamics of process. Analysis and application of public relations techniques used by various organizations.
Prerequisites: COMM 1713 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 3993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics at the 1000 through the 3000 levels.

COMM 4503 Media Criticism: 3 semester hours.
Media criticism considers the nature and forms of media, their effects on audiences and society, and literacy appropriate to their understanding and use.
Prerequisites: COMM 1713 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4513 Rhetorical Criticism: 3 semester hours.
This course involves the study of important decisions in rhetorical criticism with the emphasis on the analysis of standards and methods of evaluation.
Prerequisites: COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4523 Communication Theory: 3 semester hours.
This course takes a close, critical look at some of the most important contemporary theories of human communication, emphasizing their practical implications for society and our everyday lives.
Prerequisites: COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543.

COMM 4533 Communication Research: 3 semester hours.
Universal research process from defining ideas and problems to reporting results. Casual interference and relative strengths of various research designs. Fundamentals and specifics applications of most common data-gathering and measurement techniques in Communication research: experimental, survey, content analysis, historical and qualitative.
Prerequisites: COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543.

COMM 4543 Advanced Writing for the Discipline: 3 semester hours.
Students will learn and apply advanced methods and theories of writing for the communication discipline, producing a major research paper, literature review or performative writing project. This course will cover advanced elements of source citation, style, research writing formats and content.
Prerequisites: COMM 2513.

COMM 4603 Organizational Communications: 3 semester hours.
An advanced course in management of human resources through communication skills in interviewing, briefing, consulting, and decision-making.
Focuses on analyzing and evaluating patterns of communication within social, cultural, and industrial, and academic organizations.
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4613 Political Communication: 3 semester hours.
This course involves a critical evaluation of political campaigns. It examines the theory and practice of selected topics in communication related to political persuasion.
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4623 Rhetoric of Social Movements: 3 semester hours.
The course evaluates the philosophical, social, and cultural foundations of rhetorical theory and practices found in different social movements. It looks at the ways in which social groups and persuasive efforts shape public opinion, emphasizing the way in which language symbols, writing, and activates are used as devices of oppression and liberation.
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4693 Special Topics in Communication Studies: 3 semester hours.
Intensive study of selected topics in communication studies such as rhetoric, performance, interpersonal, intercultural, and organizational. Areas covered will rotate by term and instructor. This course is repeatable with change in topic up to 6 semester hours.
Prerequisites: COMM 1003 and COMM 2603 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4703 Professional Internship: 3 semester hours.
Semester spent in a professional setting in a communication medium. Direct supervision by media and faculty professionals. This internship will be off-campus unless by permission of department head. This course can be repeated up to 6 semester credit hours.

COMM 4713 Voice and Performance: 3 semester hours.
This course gives students a wide range of performance skills suited for live audiences. Students will perform in class and laboratory setting to develop their vocal and kinesthetic abilities in preparation for live performance.
Prerequisites: COMM 1003 and COMM 1713 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4723 Digital Video Production II: 3 semester hours.
An advanced study of current approaches, practices and trends in digital video production. This course encompasses preproduction, production, and postproduction, including content development, manipulation, and effects.
Prerequisites: COMM 3723.
COMM 4733 Advanced Nonlinear Editing: 3 semester hours.
This advanced nonlinear editing course builds upon a student's technical knowledge of nonlinear editing, allowing him or her to investigate the aesthetic and structural challenges faced when editing different types of projects. This course covers advanced editing preference setup, different video capture methods, and video/audio effect applications.
Prerequisites: COMM 3723.

COMM 4793 Special Topics in Mass Communication: 3 semester hours.
Intensive study of selected topics in mass communication areas, including but not limited to media studies, film studies, media production and new media. Area covered will rotate by term and instructor. This course is repeatable with change in topics.
Prerequisites: COMM 1713 and (COMM 2513 or COMM 2523 or COMM 2533 or COMM 2543).

COMM 4893 Senior Communication Capstone: 3 semester hours.
Course offers a critical examination of various aspects of communication. Students will develop a portfolio that demonstrates successful integration of ideas from across the communication major curriculum.

COMM 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics.

COMM 5203 Introduction to Web Design: 3 semester hours.
Fundamentals of website development, including html, web-building software applications, multilevel site planning and construction, basic interactivity (VIA Java script and CGI), information organization, web site management, and the delivery of basic multimedia content.

COMM 5323 Desktop Publishing: 3 semester hours.
This course introduces students to the most popular graphics, and page layout programs for electronic publishing (Photoshop, InDesign)

COMM 5413 Multimedia Authoring: 3 semester hours.
Students learn to create and publish multimedia productions for various formats including DVD/CD and the Web. Hands-on activities using Director and DVD Pro.

Community Development (CODE)

Courses

CODE 5013 Introduction to Community Development: 3 semester hours.
This course will examine the nature and role of community development activities as a strategy to increase the assets a community has at its disposal to solve problems. The course explores both local government and not-for-profit sector organizations with a focus on partnership and corporations. The role and responsibilities of a consensus organizer in the CD process will be examined.

CODE 5016 Community Development Studio I: 6 semester hours.
A selection of supervised field trips, case studies, research projects and other hands-on community experiences to give students a contextual understanding of the community development profession.

CODE 5023 Advanced Community Development: 3 semester hours.
Advanced studies in the history, theory and practice of community development.
Prerequisites: CODE 5013.

CODE 5026 Community Development Studio II: 6 semester hours.
Projects and case studies applying community development theory.
Prerequisites: CODE 5023 (may be taken concurrently).

CODE 5033 Community Dev Studio: 3 semester hours.
Research projects and hands on experience to give students a contextual understanding of the community development profession. The focus of this class will be on the social and physical aspects of a community's development.

CODE 5043 Community Dev Practicum I: 3 semester hours.
Laboratory and supervised practical experience in a community-based organization. Students will be involved in the actual operation of a community organization. The focus of this class will be on management, economics and political aspects of implementing community projects.

CODE 5063 Comm Dev Prac II: 3 semester hours.
Laboratory and supervised practical experience in a community-based organization. Students will be involved in the actual operation of a community organization. The focus of this class will be on management, economics and political aspects of implementing community projects. This course is a continuation of CODE 5043.

CODE 5073 Comm Dev Financing: 3 semester hours.
Non-traditional financing strategies will be studied to support projects addressing the development of distressed communities.

CODE 5083 Demography & GIS: 3 semester hours.
This course will introduce students to the use of demography and geographic information systems (GIS) in the design and development of communities. This course is designed to enhance student's research skills with GIS technology.
CODE 5093 Coll Community Project Studio: 3 semester hours.
Multi-disciplinary (fields of business, social science, architecture, civil engineering, nursing, health science, construction science, criminal and juvenile justice, and urban planning) research projects and other hands-on community experiences to give students a contextual understanding of the field of community development within their disciplines.

CODE 5103 Cultural Heritage Preservation: 3 semester hours.
This course will explore the history and theory of historic preservation in the United States and an overview of the professional practice of preserving the cultural and physical heritage of buildings, structures, sites and communities will be examined.

CODE 5113 Historic Preservation Material Conservation: 3 semester hours.
This course will examine preservation standards, the regulatory environment and professional practices related to building preservation and adaptive use.

CODE 5123 Historic Preservation: 3 semester hours.
This course will explore research skills and the historic designation process of buildings and districts at the local, state, and national levels.

CODE 5133 Recording Historic Building Sites: 3 semester hours.
Documenting according to Historic American Building Survey (H.A.B.S.) standards.

CODE 5143 Presv Law & Econ: 3 semester hours.
This course will provide students with a working understanding of the governing laws that are used in a professional historic preservation practice.

CODE 5203 Introduction to Community Leadership: 3 semester hours.
Identifying and anticipating future leaders of communities through selected programs.

CODE 5213 Negotiation, Mediation and Facilitation: 3 semester hours.
Skill building strategies and exercises in critical thinking, listening and identity based communications.

CODE 5303 Community Political Structure: 3 semester hours.
The role and function of public and private organizations and local, state and national government in the community development process.

CODE 5313 Community Management and Leadership: 3 semester hours.
The theory and practice of leadership and management in various community development related settings.

CODE 5323 Community Analysis: 3 semester hours.
The basic skills of studying and understanding the structure, function, goals, standards and performance of a community.

CODE 5343 Community Research: 3 semester hours.
Methods for recognizing information needs, sources and applications.

CODE 5363 Community Physical Structure: 3 semester hours.
The physical context of the community and its impact on community health and development.

CODE 5399 Independent Study: 3 semester hours.
Individual reading, research and/or field work in selected topics.

CODE 5406 Internship: 6 semester hours.
Approved internship with a community development related organization.

CODE 5503 Capital Development: 3 semester hours.
Fundraising strategies and relationship building.

CODE 5513 Grant Development: 3 semester hours.
This course will examine the process of securing and managing resources to support effective nonprofit projects and community development activities.

CODE 5523 Campaigns And Gifts: 3 semester hours.
Campaign strategic planning and techniques used in driving donor decisions.

CODE 5543 Research for Capital and Grant Development: 3 semester hours.
Research for fundraising efforts.

CODE 5603 Land Development and Planning in Declining Communities: 3 semester hours.
This course will explore techniques used to identify and acquire vacant or unmanaged properties in depressed neighborhoods. The course examines challenges, social and other influences and changes throughout the world, with a special emphasis upon less industrialized area.

CODE 5613 Land Development and Use Control Strategies: 3 semester hours.
This course will introduce students to the basic principles of land and real estate development. The course will provide an overview of the development process, the land development team, site analysis reading development drawings and environmental issues.

CODE 5697 Special Topics: 6 semester hours.
The study of various specialized fields of community development as they relate to contemporary issues. Topics may vary by semester. Course may be repeated for credit when topics vary.

CODE 5699 Independent Study: 6 semester hours.
Individual reading, research and/or field work in selected topics.
CODE 5743 Global Community Development in the United States: 3 semester hours.
This course will explore the role of immigrants, non-U.S. citizens, and foreign investors in developing rural and urban America. The course will examine the role of immigration on shaping the social and economic form of American cities and suburbs, and the role of historic preservations in economic development.

CODE 5753 International Community Development Policies and Practices: 3 semester hours.
The role of government and private organizations in developing distressed foreign communities.

CODE 5803 Principles of Real Estate I: 3 semester hours.
This course will introduce students to the basic principles of the real estate profession. Licensing requirements and the Texas Real Estate Licensing Act are covered. This course satisfies one of the core course requirements to apply for a State of Texas Real Estate License.

CODE 5813 Principles of Real Estate II: 3 semester hours.
This course will introduce students to real world practices through the use of lectures, guest speakers, and case studies. This course will expose students to the many activities involved in real estate transactions. This course satisfies one of the core course requirements to apply for a State of Texas Real Estate License.
Prerequisites: CODE 5803.

CODE 5823 Law of Agency: 3 semester hours.
This course covers the representation of property owners, buyers and/or intermediaries. This course satisfies one of the core course requirements to apply for a State of Texas Real Estate License.

CODE 5833 Law of Contract: 3 semester hours.
This course covers FHA, VA and Conventional contracts. Students will be exposed to the applications of property acquisition contracts. This course satisfies one of the core course requirement to apply for a State of Texas Real Estate License.
Prerequisites: CODE 5823.

CODE 5903 Community Art: 3 semester hours.
A study on the influence of community arts and its impact on society. This course will explore the impact of art as a means of communication and expression. The historical context will include studies of the Paleolithic cave writings to modern day murals and graffiti.

CODE 5973 Special Topics: 3 semester hours.
The study of various specialized fields of community development as they relate to contemporary issues. Topics may vary by semester. Course may be repeated for credit when topics vary.

CODE 5976 Special Topics: 6 semester hours.
The study of various specialized fields of community development as they relate to contemporary issues. Topics may vary by semester. Course may be repeated for credit when topics vary.

CODE 5993 Independent Study: 3 semester hours.
Individual reading, research and/or field work in selected topics.

CODE 5996 Independent Study: 6 semester hours.
Individual reading, research and/or field work in selected topics.

Computer Engineering Tech (CPET)

Courses

CPET 1011 Intro to Engineering Comp Sci: 1 semester hour.
Introduction to basic engineering, computer science and technology concepts. Students will become aware of the various disciplines of engineering, computer science and technology, ethical responsibilities in these fields, creativity and design.
Co-requisite: CPET 1021.

CPET 1013 Computer Applications in Engineering Technology I: 3 semester hours.
Development of logical step by step approach to analyze and solve computing problems in engineering technology. Introduction of programming languages. Familiarization and use of software tools such as MATLAB in the area of electronics, signals, and telecommunications through assignments and team projects.

CPET 1021 Intro to CPET Lab: 1 semester hour.
Introduction to the field of engineering technology, the curriculum, the basic skills of problem solving, and hands-on experiments, the basic concepts and applications on computer technology.
Co-requisite: CPET 1011.

CPET 1023 Computer Application to Engineering Technology II: 3 semester hours.
A continuation of CPET 1013 in C++ programming techniques, programming languages, screen editor, and ORCAD software. Development of techniques and skills in statistical analysis, simulated software and related scientific software packages included.
Prerequisites: CPET 1013.
**CPET 2006 Cooperative Education I: 6 semester hours.**
A cooperative arrangement between the University and a company or government agency that provides experiences for students majoring in Computer Engineering Technology. The work assignment must be commensurate with the student's major. A subsequent written report is required.

**CPET 2111 Digital Logic Laboratory: 1 semester hour.**
Laboratory experiments and reports in combinational and sequential logic using logic gates and flip-flops, and other logic devices. Experiments stress applications in Computer Engineering Technology.
Prerequisites: CPET 2113 (may be taken concurrently).

**CPET 2113 Digital Logic Circuits: 3 semester hours.**
Digital logic with topics in number systems and codes, Boolean algebra and logic minimization methods, and combinational and sequential logic using logic gates and flip-flops and other logic devices. Applications in Computer Engineering Technology are stressed.
Co-requisite: CPET 2111.

**CPET 2503 Mathematical Applications for Technology: 3 semester hours.**
A survey of appropriate concepts and techniques from methods with applications to the solution of problems in technology.
Prerequisites: MATH 2024.

**CPET 3013 Software Engineering Technology I: 3 semester hours.**
Using Software models, technical problem analysis, UML design and development, implementation and testing. Case studies of software technology.
Implementation of designs using a high level programming language for software and hardware design. Advanced concepts in a high level programming language manipulating files, tasking and real time interfacing with the computer hardware.
Prerequisites: CPET 1023.

**CPET 3161 Computer Architecture Lab: 1 semester hour.**
Laboratory experiments to determine performance characteristics of commercially available microcomputers. Write codes for 8-bit through 32-bit processors to exercise the hardware.
Prerequisites: CPET 2111 and CPET 2113 and CPET 3163 (may be taken concurrently).

**CPET 3163 Computer Architecture: 3 semester hours.**
The performance characteristics of commercially available computers. Students will study 8-bit through 32-bit processors. Selection and use of processors.
Prerequisites: CPET 2111 and CPET 2113 and CPET 3161 (may be taken concurrently).

**CPET 3231 Microprocessor Assembly Language Laboratory: 1 semester hour.**
Exploring the Intel processor registers, their functionalities and responsibilities in computations, tracing individual instruction executions in debug mode, dedicated memory segments and address spaces in real and protected modes, microprocessor programming in solving engineering technology problems and program analysis at microprocessor level.
Prerequisites: CPET 2111 and CPET 2113 and CPET 3233 (may be taken concurrently).

**CPET 3233 Microprocessor Assembly Language: 3 semester hours.**
Microprocessor level data represented in binary and hexadecimal formats, Intel 32-bit architecture, real and protected mode address spaces, processor-memory working relationship, Intel programming mnemonics, program design and microprocessor level programming for solving engineering technology applications.
Prerequisites: CPET 2111 and CPET 2113 and CPET 3231 (may be taken concurrently).

**CPET 3251 Digital Hardware Design Laboratory: 1 semester hour.**
Laboratory experiments in design of digital computers and computer controlled devices. The internal operation of a microprocessor and computer.
Registers and timing control, programmable gate arrays, array processors as computer models.
Prerequisites: CPET 2111 and CPET 2113 and CPET 3253 (may be taken concurrently).

**CPET 3253 Digital Hardware Design: 3 semester hours.**
Basic concepts used on the design of digital computers and computer-controlled devices. The internal operation of a microprocessor and computer.
Registers and timing control, programmable gate arrays, array processors as computer models. Students will use individual board computers for doing simulation.
Prerequisites: CPET 2111 and CPET 2113 and CPET 3251 (may be taken concurrently).

**CPET 3333 Cooperative Education II: 3 semester hours.**
A cooperative arrangement between the university and a company or government agency that provides experiences for students majoring in Computer Engineering Technology II. The work assignment must be commensurate with the student's major. A subsequent report is required.

**CPET 4013 Operating Systems: 3 semester hours.**
Operating system structure, kernel and service programs, process scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management, file systems.
Prerequisites: CPET 1023 and CPET 2113.

**CPET 4051 Computer Systems Design Laboratory: 1 semester hour.**
Experiments involving interface logic and programmable I/O devices for microprocessor base systems. The course will introduce-based systems.
Introduce system design CAD tools, simulation, verification and synthesis.
Prerequisites: CPET 3161 and CPET 3163 and CPET 4053 (may be taken concurrently).
CPET 4053 Computer Systems Design: 3 semester hours.
Study of modern digital design methodologies, operation, arithmetic operations, and the study of advanced analysis on microprocessor software engineering systems.
Prerequisites: CPET 3161 and CPET 3163 and CPET 4051 (may be taken concurrently).

CPET 4061 Data Communication Methods Laboratory: 1 semester hour.
Laboratory experiments in data communication devices. Modems, multiplexers, concentrators, protocols, error checking, front-end processors, USARTS, simplex/duplex transmission, and telecommunications.
Prerequisites: CPET 2111 and CPET 2113 and CPET 2503 and CPET 4063 (may be taken concurrently).

CPET 4063 Data Communication Methods: 3 semester hours.
Functional and operational aspects of data communication devices and software, including modems, control units, multiplexers, concentrators, front-end processors, codes and procedures, protocols, error checking, and networking.
Prerequisites: CPET 2113 and CPET 2111 and CPET 2503 and CPET 4061 (may be taken concurrently).

CPET 4082 Senior Project I: 2 semester hours.
A two-semester sequence for individual projects supervised by a faculty member of the department. The portions of the first semester course (4082) are devoted to group discussion of professional aspects of engineering ethics, research protocols, and patent considerations. A written proposal describing the project is required. Oral presentation throughout the semester on the research project using a conference style format.

CPET 4092 Senior Project II: 2 semester hours.
A two-semester sequence for individual and/or team projects supervised by a faculty member of the department. The portions of the second semester course (4092) are devoted to group discussion of professional aspects of engineering technology; research writing, engineering ethics, research protocols, patent considerations. A written proposal describing the project is required. Oral presentations throughout the semester on the research project using culminating in a final written report.
Prerequisites: CPET 4082.

CPET 4103 Special Topics: 3 semester hours.
Selected current and emerging topics in Engineering Technology.

CPET 4111 Applications of Microprocessor Software Laboratory: 1 semester hour.
Exercises in industrial applications programs. Use of micro assemblers to write floating point mathematical routines, special purposes languages. Engineering Technology applications are stressed.
Prerequisites: CPET 3231 and CPET 3233 and CPET 4113 (may be taken concurrently).

CPET 4113 Software Applications of Microprocessors: 3 semester hours.
Assembler-level programming of microprocessors and microcomputers with emphasis on writing industrial application programs. Use of micro assemblers to write floating point mathematical routines, special purpose languages, simulate other microprocessor instructions sets, generate relocatable code, and linking leaders. Applications for Engineering Technology are stressed.
Prerequisites: CPET 3231 and CPET 3233 and CPET 4111 (may be taken concurrently).

CPET 4151 Micro Computer Peripheral Hardware Laboratory: 1 semester hour.
Hands-on experiments on micro computer peripheral, such as memory, 10 devices, interrupts, and etc.
Prerequisites: CPET 3161 and CPET 3163 and CPET 4153 (may be taken concurrently).

CPET 4153 Micro Computer Peripheral Hardware: 3 semester hours.
The elements of microprocessor peripheral hardware and its interfacing. Students will configure and construct microprocessor systems. Topics include series and parallel I/O devices, DMA and interrupt control devices, bus arbitration, and memory management units.
Prerequisites: CPET 3161 and CPET 3163 and CPET 4151 (may be taken concurrently).

CPET 4361 Computer Networking Laboratory: 1 semester hour.
Experiments and reports involving the hardware and software for computer networks. Experimental topics include LANS, W ANS, networking components and techniques, standards and protocols, and networks on a chip.
Prerequisites: CPET 4061 and CPET 4063 and CPET 4363 (may be taken concurrently).

CPET 4363 Computer Networking: 3 semester hours.
A study of the hardware and software in computer networks. Topics include LANS, W ANS, networking components and techniques, standards and protocols, networks on a chip, and networking trends.
Prerequisites: CPET 4061 and CPET 4063 and CPET 4361 (may be taken concurrently).

CPET 4381 Digital Signal Processing Applications Laboratory: 1 semester hour.
Experiments in Signal Processing using commercial DSP processors for performing various image and speech processing tasks. Emphasis on learning DSP programming techniques.
Prerequisites: CPET 2111 and CPET 2113 and CPET 4383 (may be taken concurrently).

CPET 4383 Digital Signal Processing Applications: 3 semester hours.
Prerequisites: CPET 2111 and CPET 2113 and CPET 4381 (may be taken concurrently).
CPET 4391 Programmable Microcontrollers Laboratory: 1 semester hour.
Laboratory experiments using microcontrollers to control various devices. Read input from sensors, perform analysis through software, and then provide corresponding control signals. Interfacing microcontrollers to computers.
Prerequisites: CPET 2111 and CPET 2113 and CPET 4393 (may be taken concurrently).

CPET 4393 Programmable Microcontrollers: 3 semester hours.
Introduction to programmable microcontrollers, application of microcontrollers in industrial environment for controlling machines and devices. Downloading control software to microcontrollers from computers.
Prerequisites: CPET 2111 and CPET 2113 and CPET 4391 (may be taken concurrently).

CPET 4993 Independent Study: 1-3 semester hour.
Reading, research, and/or laboratory work on selected topics in Engineering Technology.

Computer Information Systems (CINS)

Courses

CINS 5013 Information Resources Management: 3 semester hours.
Topics include information systems analysis, design, application, operation, management, and methods for integrating information resources into a decision support framework.

CINS 5033 Database Management Systems: 3 semester hours.
Fundamentals of database management systems, techniques for the design of databases, and principles of database administration. The course emphasizes theories of data modeling, database design, database application development, and database management. Topics include conceptual models, query languages, and centralized, distributed, and client/server architectures. Special importance is assigned to the design of databases and the development of client/server architectures. Other topics include database integrity, security, error recovery, and concurrency control.
Prerequisites: COMP 1224.

CINS 5043 Data Communications and Computer Networks: 3 semester hours.
A broad introduction to network technologies, architectures, services, and management necessary to meet business needs, including network and internet designs, applications, and an overview of the telecommunications industry.

CINS 5063 Data Structures and Algorithms: 3 semester hours.
Advanced course in data structures with an emphasis on common applications such as pattern matching, data compression, and spell checking. The goals are to provide an insight into data structures, to show how to evaluate data structures, and to provide a basis for making wise choices of data structures in the development of software application systems. The course relates the principles of data structures to the implementation of commercial applications and widely used utilities such as diff (for finding the string edit distance), grep (for pattern matching), and compress (for data compression).
Prerequisites: COMP 1224.

CINS 5073 Information Technology: 3 semester hours.
Introductory graduate-level course for CIS majors. This course explores the "information technology (IT) infrastructure," that is, the complex system of computers, networks, software, and delivery goals which collectively form the platform for assimilating and delivering information products and services to an organization and its customers, clients, and suppliers.

CINS 5103 Decision Support Systems: 3 semester hours.
Use of decision support systems in business-related decision-making, an overview of the business environment, use models, user interfaces for decision support systems, and decision support systems examples.

CINS 5153 Object-Oriented Analysis and Design: 3 semester hours.
An introduction to object-oriented software development using an object-oriented programming language such as C++. Emphasis is placed on both object-oriented design and efficient implementation of the design. Topics include principles of software engineering, management issues, prototyping, development, testing, debugging, and maintenance of software systems. The central theme is to build quality software through reuse.

CINS 5173 Information Storage and Retrieval: 3 semester hours.
Comprehensive coverage of components, applications, and issues of global information technology management for worldwide organizations.
Prerequisites: CINS 5063.

CINS 5183 Software Engineering: 3 semester hours.
Specifying software requirements and an overview of analysis and design techniques that can be used to structure applications. Topics in software requirements include interacting with end-users to determine needs and expectations, identifying functional requirements, and identifying performance requirements. Analysis techniques include prototyping, modeling, and simulation. Design topics include the system lifecycle, hardware and software trade-offs, subsystem definition and design, abstraction, information hiding, modularity, and reuse.
Prerequisites: CINS 5063.

CINS 5193 Enterprise Information Systems: 3 semester hours.
Introduce Business Processes used in common information systems such as Human Resources, Customer Relationship Management, Supply Chain Management, Enterprise Resource Planning, and Knowledge Management Systems. Students learn the development of modules using open source systems.
Prerequisites: CINS 5063 and CINS 5033.
CINS 5203 Web Application Dev I: 3 semester hours.
Course focuses on the design and development of "client-side" web applications. Topics include Web 2.0, web application development methods, client-side scripting, session management, JavaScript-enabled Rich Internet Applications, and reusable web application components. Technologies such as JavaScript, applets, Dreamweaver, Flash, XML, XHTML and Cascading Style Sheets are explored. The course includes an emphasis on the principles of good software engineering.
Prerequisites: COMP 1224.

CINS 5243 Web Application Development II: 3 semester hours.
Course covers server-side web programming of Internet applications. This course will concentrate on the principles of good software engineering and teach Web programming by example. It builds on the foundation of client-side technologies.
Prerequisites: CINS 5203.

CINS 5303 E-Commerce: 3 semester hours.
The evolution of electronic commerce, where business is conducted between organizations and individuals relying primarily on digital media and transmission. Participants will investigate the opportunities and challenges of exchanging goods and services over communications networks as well as the manner in which business relationships are being reshaped. Course activities are designed to provide both managerial and entrepreneurial assessments of anticipated advances in information technology with respect to business systems and electronic markets.

CINS 5313 Information Assurance: 3 semester hours.
Topics include information security engineering, introduction to various information and Internet attack, defense technologies, operating system vulnerabilities and safeguards, and cryptography.
Prerequisites: CINS 5043 and CINS 5063.

CINS 5323 Multimedia Applications: 3 semester hours.
The background needed for the design and development of computer-based business systems that combine text, still images, sound, animation, and full-motion video. The course will examine hardware characteristics necessary for the development and execution of such systems, design methodologies used in planning these systems, and authoring languages used to create such systems. Students will be required to design, create, and present at least one multimedia system for evaluation by the class.

CINS 5343 Mobile & Wireless Info Systems: 3 semester hours.
Course provides coverage of current and emerging applications including wireless and mobile infrastructure, devices, middleware, and network access issues. Topics include applications of mobile and wireless information systems, mobile and wireless data communication and information exchange, mobile and wireless information system security, hardware and software.
Prerequisites: CINS 5043.

CINS 5383 Software Project Management: 3 semester hours.
The course provides an in-depth examination of software project management principles and activities. Methods for managing and optimizing software development processes are discussed, along with techniques for managing software products from concept through development.
Prerequisites: CINS 5033 and CINS 5063.

CINS 5893 Applied Research: 3 semester hours.
Research under the supervision of a thesis advisor; can not be used as a technical elective.

CINS 5906 Masters Thesis: 6 semester hours.
A candidate for the Master of Science in Computer Information Systems with thesis option is required to perform a study, a design or investigation, under the direction of a faculty advisory committee. A written thesis is required to be presented, defended orally and submitted to the faculty advisory committee for approval.

CINS 5913 Masters Project: 3 semester hours.
A candidate for the Master of Science in Computer Information Systems with project option is required to perform a study, design, or investigation, under the direction of a graduate faculty advisor. An oral presentation and a written report are required. Prerequisite: candidacy for the Non-Thesis-Option of the Master of Science in Computer Information Systems.

CINS 5983 Special Topics in Computer Information Systems: 3 semester hours.
Special topics in computer information systems or a special interest subject that is offered infrequently. Several different topics may be taught in one semester, such as Information Security or Data Warehousing.

CINS 5993 Independent Study: 3 semester hours.
Individual studies in advanced computer science and technology.

Computer Science (COMP)

Courses

COMP 1003 Digital Communication: 3 semester hours.
Efficient communication in the digital world, including multi-media editing, web page/site design, publishing on the internet, and cloud computing. Social and ethical responsibility of using social media, surfing the internet, and information security. Fundamentals of Excel spreadsheets and MS Access together pertinent information analyzed, evaluate, interpret, display data, and draw conclusion. Team projects using Sharepoint and group presentation.
**COMP 1011 Intro to Basic Engr & Comp Sci: 1 semester hour.**
Students will become aware of the various disciplines of engineering, computer science and technology, ethical and professional responsibilities in these fields, creativity and design. 
Prerequisites: COMP 1021 (may be taken concurrently).

**COMP 1013 Introduction to Computer Science: 3 semester hours.**
Fundamentals of computer science and programming to include algorithm definition, concepts, semantics and logic, fundamental data types (character, integer, and floating-point) and their binary representations and limits, arithmetic and logical operators and precedence, program structure and flow, branching and looping, functions and parameters, and basic input and output methods, emphasizing modular design and implementation of an object-oriented language such as C++.

**COMP 1021 Introduction to Computer Science Lab: 1 semester hour.**
This lab component will cover the overview of the current job opportunities and some hands-on exercises to understand the current topics. 
Prerequisites: COMP 1011 (may be taken concurrently).

**COMP 1211 Computer Science Lab I: 1 semester hour.**
A laboratory course in programming for computer science utilizing the concepts introduced in COMP 1213, including language concepts of input/output, constants, data types, control structures, loops, functions, enumerated data types, arrays and strings structures, exception handling.
Prerequisites: (MATH 1123 (may be taken concurrently)) or (MATH 1115 (may be taken concurrently)) or (MATH 1124 (may be taken concurrently)). 
Co-requisite: COMP 1213.

**COMP 1213 Computer Science I: 3 semester hours.**
Introduction to and practice of modern problem solving and programming methods. Special emphasis is placed on top-down modular design and implementation of robust and easily maintainable programs in a high-level, object-oriented language such as C++ to include external files, control structures, loops, scope, functions, output formatting, inline functions and function templates, enumerated data types, arrays, structures, exception handling. 
Prerequisites: MATH 1115 (may be taken concurrently) or MATH 1123 (may be taken concurrently) or MATH 1124 (may be taken concurrently).
Co-requisite: COMP 1211.

**COMP 1221 Computer Science Lab II: 1 semester hour.**
A laboratory course in programming for computer science utilizing the concepts in COMP 1223 in object-oriented programming concepts including classes, abstraction, data hiding, polymorphism, inheritance; as well as basic programming data structures including array based lists, pointers, basic linked lists, stacks and queues. 
Prerequisites: COMP 1213 and COMP 1211 and MATH 1124 (may be taken concurrently).
Co-requisite: COMP 1223.

**COMP 1223 Computer Science II: 3 semester hours.**
Continuation of COMP 1214 with continued emphasis on program development techniques, array based lists, pointers, basic linked lists, classes, abstraction, data hiding, polymorphism inheritance, stacks and queues. 
Prerequisites: COMP 1213 (may be taken concurrently) and COMP 1211.
Co-requisite: MATH 1124.

**COMP 2003 Introduction to Web Design and Multimedia: 3 semester hours.**
The role of internet and as a tool in business; design and development of simple internet applications using HTML; basics of scripting languages; development of home pages incorporating graphics, and multimedia.

**COMP 2013 Data Structures: 3 semester hours.**
Fundamental data structures; the implementation and application of binary files, stacks, queues, recursion, advanced linked lists, trees, graphs, data compression, heap, priority queue, and sorting techniques. 
Prerequisites: COMP 1224 or (COMP 1223 and COMP 1221).

**COMP 2023 Applications Development using C#: 3 semester hours.**
Introduction to developing Windows based applications using the Visual Studio C# language. Students will learn how to develop software for several types of (fun) applications using interactive forms, multimedia, graphics, images, Web services, streaming video, etc. Basics of developing simple games, incorporating web services such as Mapping, weather, You-tube, stock quotes, etc. will also be covered. Open to all majors. 
Prerequisites: COMP 1013 or COMP 1213.

**COMP 2033 Assembly Language: 3 semester hours.**
Study of the logical design and internal operation of digital computers and programming using a macro assembly language. Using several practical exercises to illustrate machine structures and programming techniques for a typical microprocessor environment, such as the Intel processor/IBM PC architecture. 
Prerequisites: COMP 1224.

**COMP 2043 Digital Logic Circuits: 3 semester hours.**
The design and implementation of digital logic circuits. Combinational and sequential circuit analysis. Digital circuit design optimization methods using random logic gates, multiplexers, decoders, registers, counters, and programmable logic arrays.
Prerequisites: COMP 1224 or (COMP 1223 and COMP 1221).
COMP 2103 Discrete Structures: 3 semester hours.
A bridge course between data structures/discrete mathematics and analysis of algorithms, to include reviews of functions and relations, basic
combinatorics (set operations, counting, combinations, and permutations) and introductions to prepositional and predicate logic, discrete probability
theory, recursive definitions, computational complexity, and proof techniques including mathematical induction. The concepts are illustrated by
applications involving graphs, trees, networks and related algorithms.
Prerequisites: COMP 1224 or (COMP 1223 and COMP 1221).

COMP 2133 Introduction to Information Security: 3 semester hours.
Expose students to the concept of network security and make them aware of related information security and privacy problems. Topics in network
security includes malware, social engineering attacks, Web application attacks, wireless security, access control, authentication, basic cryptography, and
security in social medial and cloud computing. Various attack demonstrations and animations will be utilized. This course can be used as low-level CS
elective.
Prerequisites: COMP 1224.

COMP 2143 Introduction to Java: 3 semester hours.
An introduction to the Java Programming language. Includes coverage of Java Development Kit (JDK), applications, creating applets for enhancing web
pages, and an introduction to the object model, and object oriented programming. Prerequisites: Proficiency in at least one programming language. Can
be used as a computer science lower level elective.

COMP 3033 Digital Logic Circuits: 3 semester hours.
The design and implementation of digital logic circuits. Combinational and sequential circuit analysis. Digital circuit design optimization methods using
random logic gates, multiplexers, decoders, registers, counters, and programmable logic arrays.
Prerequisites: COMP 2033.

COMP 3043 Computer Organization: 3 semester hours.
The study of a computer as a series of levels, each one built on its predecessor. Digital logic level, the microprogramming level, the conventional
machine level, the operating systems level, and the assembly language level.
Prerequisites: COMP 2043.

COMP 3053 Analysis of Algorithms: 3 semester hours.
Introduction to algorithm design and analysis, computational complexity, and NP-completeness theory, emphasizing design, appropriate algorithms and
data structures to solve a given problem efficiently, including divide- and-conquer techniques, greedy methods, and dynamic programming.
Prerequisites: COMP 2013 and COMP 2103.

COMP 3063 Operating Systems: 3 semester hours.
Basic functions of operating systems including device management, multi-programming, job management, memory management, and input/output
processing.
Prerequisites: COMP 2013 or (ELEG 4393 and COMP 3043).

COMP 3113 Object-Oriented Analysis and Design: 3 semester hours.
Application and benefits of the object-oriented software process model with special consideration to concepts, models, notations, and methods to
effectively and efficiently design and implement complex software applications using a practical, state-of-the-art object-oriented method, covering
concepts intrinsic to object-oriented technology such as data abstraction, encapsulation, inheritance and polymorphism. State-of-the-art design and
implementation tools, such as the unified modeling language (UML) and a high-level object-oriented language such as C++ will be used to illustrate
these concepts.
Prerequisites: COMP 2013.

COMP 3203 System Analysis and Design: 3 semester hours.
Studying analytical models of system design with emphasis on evaluating system for efficiency, maximum utilization and appropriateness, and on
structuring and designing systems.
Prerequisites: COMP 1224 or (COMP 1223 and COMP 1221).

COMP 3213 Graphics and Visual Computing: 3 semester hours.
Principles of interactive computer graphics; Topics include fundamental techniques in graphics, graphic systems, graphic communication, geometric
modeling, rendering, computer animation, visualization and virtual reality and other recent developments in computer graphics.
Prerequisites: COMP 2013.

COMP 3223 Software Engineering: 3 semester hours.
Formal software development, including the software life-cycle, modular and top-down design, validation and verification, and maintainable systems.
Prerequisites: COMP 2013.

COMP 3333 Smart Device App Development: 3 semester hours.
Introduction to app development for smart devices, specifically for Apple iOS or Google Android devices. Differences between smart devices and
traditional desk top computer systems will be examined. Various app development environments will be covered, including Xcodc and programming
language Objective-C for iOS, and Eclipse for Android.
Prerequisites: COMP 2013.
COMP 3953 Database Management: 3 semester hours.
File structures and access methods, database modeling design and user interface, components of database management systems. Information storage and retrieval, query languages, high-level language interfaces with database systems.

COMP 4001 Ethics and Social Issues in Computing: 1 semester hour.
Social and ethical implications of computing. Topics include history of computing, social context of computing, methods and tools of analysis, professional and ethical responsibilities, risks and liabilities of computer-based systems, intellectual property, privacy and civil liberties.

COMP 4053 Parallel Algorithm Design: 3 semester hours.
Hardware organization of vector, array, and parallel processors for high performance computations. Study of interconnection networks and parallel processing. Automatic vectorization and parallelization of scalar programs. Implementation of parallel algorithms for scientific applications. Prerequisites: COMP 3043 and COMP 3053.

COMP 4063 Artificial Intelligence: 3 semester hours.
Introduction to artificial intelligence and expert systems to include heuristic search methods, first-order logic, forward and backward inference, knowledge representation, machine learning, and neural networks. Prerequisites: COMP 2013 and MATH 3023.

COMP 4072 Senior Design Project I: 2 semester hours.
A first of a two-part senior design course for computer science majors. Students will study computer systems design working as a design-team member, conceptual design methodology, design evaluations, project planning and management techniques, design optimization, systems manufacturing, cost considerations with an emphasis on students' activities as design professionals. Prerequisites: COMP 3223 (may be taken concurrently) and COMP 3063 (may be taken concurrently). Co-requisite: COMP 4001.

COMP 4073 Special Topics: 3 semester hours.
Studying selected current and emerging topics in Computer Science. Courses may be repeated for credit when topics vary.

COMP 4082 Senior Design Project II: 2 semester hours.
A continuation of COMP 4072 giving students the opportunities to complete a design project, make formal presentation, research, proposal writing, patents, and literature searches. Prerequisites: COMP 4072.

COMP 4113 Programming Languages: 3 semester hours.
Overview of programming languages, syntactic and semantic specification, virtual machines and fundamental issues in language design, analyzing of the imperative, object-oriented, functional, and declarative language paradigms. Introduction to formal grammars, including Backus-Naur notation studying the formal theory behind the design of a programming languages. Several programming languages will be analyzed.

COMP 4123 Computer Networks: 3 semester hours.
Introduction to the networking of computer systems to include the study of local area (LAN) and wide area (WAN) networks, data transmission, communications software, the architecture of networks, and network communication protocols. Prerequisites: COMP 3063.

COMP 4133 Formal Languages and Automata: 3 semester hours.
Introduction to formal grammars, including Backus-Naur notation studying the formal theory behind the design of a computer language. The corresponding types of automata that will serve as recognizers and generators for a language will be described. Prerequisites: COMP 2103.

COMP 4143 Introduction to Parallel Computing: 3 semester hours.
Students will study modern parallel computer architectures and the major parallel programming models in both shared and distributed systems. Topics include parallelism, concurrency, partition, divide-and-conquer, synchronization, load balancing, parallel algorithm design, implementation, and debugging. Prerequisites: COMP 2013 and COMP 2103.

COMP 4153 Data Mining and Analytics: 3 semester hours.
Topics cover fundamental data mining and analytical algorithms and paradigms, including supervised learning, unsupervised learning, frequent pattern mining, link analysis, performance improvement through data interaction, etc. Focus on implementation and data visualization using modern programming languages in the knowledge discovery process. Latest concepts such as big data and social media are also discussed. Prerequisites: MATH 3023 and MATH 3073.

COMP 4233 Network Security: 3 semester hours.
Address the fundamentals of network security, including compliance and operational security; threats and vulnerabilities; application, data and host security; access control and identity management; and cryptography. Topics includes psychological approaches to social engineering attacks, Web application attacks, penetration testing, data loss prevention, cloud computing security, and application programming development security. Prerequisites: COMP 4123.
COMP 4243 Advanced Application Development: 3 semester hours.
Topics cover web server configuration, advanced client side scripting, server side programming, database server management, and application development on mobile platforms. Focus on server-side script languages, database design and operation, and advanced web design skills on both computer and smart mobile phones. Prerequisites: COMP 3953.

COMP 4843 Human-Computer Interaction: 3 semester hours.
Focuses on the dynamics of human-computer interaction (HCI). Provides a broad overview of HCI as a sub-area of computer science and explores user-centered design approaches in information systems applications. Addresses the user interface and software design strategies, user experience levels, interaction styles, usability engineering, and collaborative systems technology. Students will perform formal software evaluations and usability tests. Prerequisites: COMP 3223.

COMP 4953 Data Base Management: 3 semester hours.
File structures and access methods, database modeling design and user interface, components of database management systems. Information storage and retrieval, query languages, high-level language interfaces with database systems. Prerequisites: COMP 2013.

COMP 4963 Introduction to Service Computing: 3 semester hours.
Introduces core techniques of service computing, including service-oriented architecture, the roles of application builders, service specifications, workflow modeling, and specifications, service providers and services brokers, dynamic service discovery and basic ontology, understand major paradigms of computing. Prerequisites: COMP 4953.

COMP 4993 Independent Study: 1-3 semester hour.
Reading, research and/or field work on selected topics.

COMP 5003 Research Methods and Graduate Seminar: 3 semester hours.
Series of lectures given by faculty and by visiting computer and information scientists and information technologists.

COMP 5113 Fundamentals and Concepts of Programming Languages: 3 semester hours.
Study of the principles that form the basis of programming language design. Research topics in high-level languages including data abstraction, parameterization, scoping, generics, exception handling, parallelism, and concurrency. Additional topics include alternative language designs (imperative, functional, descriptive, object-oriented, and data flow designs) and an overview of interfacing with support environments. Prerequisites: COMP 4113.

COMP 5123 Advanced Computer Architecture: 3 semester hours.
New technological developments, including details of multiprocessor systems and specialized machines. The main focus is on the quantitative analysis and cost-performance tradeoffs in instruction set, pipeline, and memory design. Descriptions of real systems and their performance data are also given. Topics covered include quantitative performance measures, instruction set design, pipelining, vector processing, memory organization, input/output methods, and an introduction to parallel processing. Prerequisites: COMP 3043.

COMP 5133 Advanced Operating Systems: 3 semester hours.
Theoretical and practical aspects of operating systems, including an overview of system software, time-sharing and multiprogramming operating systems, network operating systems and the Internet, virtual memory management, inter-process communication and synchronization, and case studies. Prerequisites: COMP 3063.

COMP 5143 Advanced Database Management System: 3 semester hours.
Topics related to database design and data management in a database environment, including data normalization, functional dependencies, database design, query language design, implementation constraints, data integrity and security, and distributed data processing. The emphasis is on the concepts and structures necessary to design and implement a database management system. Selected advanced topics such as distributed databases, object-oriented databases, real-time databases, and multimedia databases will be discussed. Because of the many advances in information technology and the database development techniques, new business needs and opportunities are constantly emerging and, with them, the need to manage new technologies and applications effectively. This course explores these new application areas and the management approaches needed to make them successful. Prerequisites: CINS 5033.

COMP 5153 Design and Analysis of Algorithms: 3 semester hours.
Introduction to algorithm design and analysis, computational complexity, and NP-completeness theory. The course emphasizes how to design and choose appropriate algorithms and data structures to solve a given problem efficiently. Design methods covered include divide-and-conquer techniques, greedy methods, and dynamic programming. Problem domains covered include string matching, polynomials and matrices, graph theory, optimal trees, and NP-hard problems. Prerequisites: COMP 3053.
COMP 5183 Software Engineering: 3 semester hours.
Topics related to specifying software requirements and an overview of analysis and design techniques that can be used to structure applications. Topics in software requirements include interacting with end-users to determine needs and expectations, identifying functional requirements, and identifying performance requirements. Analysis techniques include prototyping, modeling, and simulation. Design topics include the system lifecycle, hardware and software trade-offs, subsystem definition and design, abstraction, information hiding, modularity, and reuse.

COMP 5193 Mobile Device App Design and Development: 3 semester hours.
Introduction to app development for mobile devices, specifically for Apple iOS or Google Android devices. Various app development environments will be covered, including Xcode and programming language Objective-C for iOS, or Eclipse for Android. App design strategy will be discussed.
Prerequisites: COMP 2013.

COMP 5213 Advanced Data Communications and Computer Networks: 3 semester hours.
Topics related to the development of client-server based applications, including two-tier and multi-tier client-server concepts and programming, concurrency issues in the design of client and server programs, trade-offs of different architectures, the use of remote procedure calls, and broadcasting and multicasting.
Prerequisites: COMP 4123 or CINS 5043.

COMP 5233 Distributed Computing and Parallel Processing: 3 semester hours.
Comprehensive introduction to the field of parallel and distributed computing systems, including algorithms, architectures, networks, systems, theory, and applications. Distributed parallel computation models, and the design and analysis of parallel algorithms will be emphasized.
Prerequisites: COMP 5133.

COMP 5253 Theory of Computation: 3 semester hours.
Models of computation, complexity theory, intractable problems, complete problems, recursive function theory, incompleteness, formal theory of program semantics and correctness, and logics of programs.
Prerequisites: COMP 3053 or COMP 5153.

COMP 5263 Computer Graphics: 3 semester hours.
Topics in computer graphics and geometric modeling, including B-spline curves and surfaces, solid modeling, radiosity, morphing, animation, simulation, subdivision, fractals, wavelets, and other selected topics.

COMP 5273 Data Mining: 3 semester hours.
Data Mining Studies algorithms, paradigms to find patterns and regularities in databases, perform prediction and forecasting, and improve their performance through data interaction. The knowledge discovery process includes data selection, cleaning, coding, and visualization. Data warehousing is also discussed.
Prerequisites: COMP 4953 or CINS 5033.

COMP 5283 Machine Learning: 3 semester hours.
Study machine learning principles and techniques including supervised and unsupervised learning, learning method analysis, theoretical and empirical evaluation. Topics include decision tree, neural networks, Bayesian learning, instance-based learning, support vector machine, etc. and their implementation.
Prerequisites: COMP 2013 and MATH 3023.

COMP 5323 Computer and Network Security: 3 semester hours.
Survey of various computer attacks, viruses, malware, and operating system vulnerabilities and safeguards. Emphasis will be put on defense techniques and skills. A study of problems related to data communication and networking security; databases security; authorization mechanisms for systems with shared resources; cryptography and applications.
Prerequisites: (CINS 5043 or COMP 4123) and (CINS 5063 or COMP 3053).

COMP 5413 Object-Oriented Analysis and Design Methodology: 3 semester hours.
Design and analysis methods for developing high-quality object-oriented systems. Topics include object-oriented classes, attributes, methods, and relations to other classes, objects, classifications and inheritance, encapsulation, polymorphism, and object-oriented analysis, design, and programming.
Prerequisites: COMP 2013 or CINS 5063.

COMP 5423 Software Engineering Processes: 3 semester hours.
Engineering of complex systems that have a strong software component. Topics include deriving and allocating requirements, system and software architectures, systems analysis and design, integration, interface management, configuration management, quality, verification and validation, reliability, and risk.
Prerequisites: COMP 2013 or CINS 5063.

COMP 5433 Software Project Planning and Management: 3 semester hours.
Methods for successful management of a software development project. This includes planning, scheduling, tracking, cost and size estimating, risk management, quality engineering, and process improvement. The course is centered on the concept of a software engineering process and includes discussion of life-cycle models for software development.
Prerequisites: COMP 5423.
COMP 5443 Advanced Software Quality Assurance: 3 semester hours.
The relationship of software testing to quality is examined with an emphasis on testing techniques and the role of testing in the validation of system requirements. Topics include module and unit testing, integration, code inspection, peer reviews, verification and validation, statistical testing methods, preventing and detecting errors, selecting and implementing project metrics, and defining test plans and strategies that assure conformance to system requirements. Testing principles, formal models of testing, and performance monitoring and measurement are also examined.
Prerequisites: COMP 5423.

COMP 5463 Human Computer Interaction and Interface Design: 3 semester hours.
A research-oriented course featuring in-depth analyses of selected current topics with an emphasis on problems related to computer systems, artificial intelligence, and human-computer interaction and interface design.
Prerequisites: COMP 5423.

COMP 5893 Applied Research: 3 semester hours.
A realistic experience in Computer Science to enhance the student's professional abilities. Students work on significant projects with industry firms or governmental agencies involving decision-making responsibility. Course requires oral and written report.

COMP 5906 Masters Thesis: 6 semester hours.
A candidate for the Master of Science in Computer Science with thesis option is required to perform a study, a design or investigation, under the direction of a faculty advisory committee. A written thesis is required to be presented, defended orally and submitted to the faculty advisory committee for approval.

COMP 5913 Masters Project: 3 semester hours.
A candidate for the Master of Science in Computer Science with project option is required to perform a study, design, or investigation, under the direction of a graduate faculty advisor. An oral presentation and a written report are required. Prerequisite: candidacy for the Non-Thesis option of the Master of Science in Computer Science.

COMP 5983 Special Topics in Computer Science: 3 semester hours.
Exposure to new and emerging concepts and technologies.

COMP 5993 Independent Study: 3 semester hours.
Individual studies in advanced computer science and technology.

Construction Science (CONS)

Courses

CONS 3013 Construction Estimating: 3 semester hours.
Classification of work and quantity survey techniques. Basic estimating applied to simple construction projects. Creation of bills of materials and quantity take-offs.

CONS 3353 Managing Construction Operations: 3 semester hours.
Managing construction operations from concepts of project selection, estimating, bidding, scheduling, subcontracting practices, cost tracking, project documentation, construction bonds, insurance, payments and the elements of close out. Special emphasis on the development of professional communication skills through student prepared multi-media presentations.

CONS 3363 Surveying and Soils: 3 semester hours.
Principles of surveying; use of surveying instruments, topographical surveys and traverses; field practice and computations. Basic considerations of site management and soils considerations for construction projects.
Prerequisites: MATH 2318.

CONS 3533 Managing Construction Operations: 3 semester hours.
Managing construction operations from concepts of project selection, estimating, bidding, scheduling, subcontracting practices, cost tracking, project documentation, construction bonds, insurance, payments and the elements of close out. Special emphasis on the development of professional communication skills through student prepared multi-media presentations.

CONS 3633 Surveying and Soils: 3 semester hours.
Principles of surveying; use of surveying instruments, topographical surveys and traverses; field practice and computations. Basic considerations of site management and soils considerations for construction projects.
Prerequisites: MATH 2183.

CONS 4340 Construction Internship: 3 semester hours.
Approved internship in the construction industry.

CONS 4403 Construction Internship: 3 semester hours.
Approved internship in the construction industry.

CONS 4406 Construction Internship: 6 semester hours.
Approved internship in the construction industry.
CONS 4413 Residential Construction: 3 semester hours.
Residential construction processes, scheduling, subcontracting, financing, estimating, project control and current trends in site selection, design and energy efficiency.

CONS 4423 Commercial Construction: 3 semester hours.
Focus on the project management of commercial construction projects ranging from high rise office buildings to small tilt-wall and pre-engineered buildings; topics include project acquisitions, mobilization, management, and close out.

CONS 4433 Industrial Construction: 3 semester hours.
Introduction to industrial construction with an emphasis on process and power plant construction from a field office management perspective.

CONS 4443 Highway/Heavy Construction: 3 semester hours.
Focus on the various aspects of highway/heavy construction; topics include earthmoving and paving equipment and utilization principles, pavement design and placement methods, unit price bidding methods, and a project case study.

CONS 4453 Facilities Management: 3 semester hours.
Focus on the various aspects of facilities management; includes budgeting for operations and management, energy management, change management, design-build changes, in house versus outsource maintenance, and contracting options.

CONS 4553 Construction Delivery Systems: 3 semester hours.
Methods and management techniques utilized in the building process.

CONS 4603 Construction Labor and Safety: 3 semester hours.
Constitutional and legal basis of labor relations in the construction industry; craft and trade unions; dual and merit shop operations; contractor-union agreements; safety on the job site; OSHA and related regulations.

CONS 4633 Construction Law and Ethics: 3 semester hours.
Delineation of contracts used in the construction industry; emphasis on understanding the functions and interrelationships of documents; review of law applied to the industry; application of the contract, and law to case studies; introduction to resources and analytical process used by construction professionals; ethics in the construction industry.

CONS 4640 Construction Internship: 6 semester hours.
Approved internship in the construction industry.

CONS 4753 Scheduling and Mobilization: 3 semester hours.
Project scheduling procedures to include computer applications and resource leveling; project types, office and field planning required to initiate the work; equipment and construction methods selection processes and an examination of contractual mandates specified.

CONS 4773 Construction Project Controls: 3 semester hours.
Introduction of students to construction related financial documents; includes schedule of values, labor and operations cost reports, and construction budgets, trace construction dollar flow from time sheet to balance sheet.

CONS 4973 Special Topics: 3 semester hours.
The study of specialized fields of construction science as they relate to contemporary issues. Topics vary by semester. Course may be repeated for credit when topic varies.

CONS 4993 Independent Study: 1-3 semester hour.
Individual reading, research and/or field work in selected topics.

Counseling (CNSL)

Courses

CNSL 5003 Organization and Administration of School Counseling Programs: 3 semester hours.
Introduction to guidance and counseling programs in schools and community agencies. Emphasis on the history, philosophy, and development of programs; programmatic activities and delivery; organizational and administrative patterns; and the interrelationships of educational and human services agencies.
Prerequisites: CNSL 5213 and CNSL 5143 and CNSL 5023 and CNSL 5253.

CNSL 5013 Counseling Techniques: 3 semester hours.
Study and practice of basic interview communication skills and counseling techniques. Emphasis on self-development, attending, feedback and influencing skills and core elements of counseling.
Prerequisites: CNSL 5023.

CNSL 5023 Theory and Practice of Counseling: 3 semester hours.
A study of major counseling theories and issues related to therapeutic practice with emphasis on practical application.

CNSL 5033 Counseling Process: 3 semester hours.
Pre-practicum experience with emphasis on the counselor-client relationship and on using appropriate therapeutic strategies and techniques in working with children, adolescents, and adults. Special consideration given to the counseling needs of minorities.
**CNSL 5043 School Consultation: 3 semester hours.**
Theoretical rationale for consultation; content and process of consultation services. Basic principles of and skill development in several approaches to consultation.
Prerequisites: CNSL 5213 and CNSL 5143 and CNSL 5023 and CNSL 5153.

**CNSL 5053 Orientation to Counseling and Development: 3 semester hours.**
A study of the sociological and cultural factors impacting individuals within a multi-cultural setting. Emphasis on understanding, serving, and managing in multi-racial, multi-ethnic, and multi-cultural settings.
Prerequisites: CNSL 5213 and CNSL 5143 and CNSL 5023 and CNSL 5153.

**CNSL 5063 School Counseling Practicum: 3 semester hours.**
Laboratory and supervised practical experiences in individual/group counseling and related functions in a public school, a university, or a community agency setting. A minimum of 300 clock hours required.
Prerequisites: (CNSL 5013 and CNSL 5123).

**CNSL 5073 Counseling Practicum II: 3 semester hours.**
A continuation of supervised practical experiences in individual/group counseling and related functions in a public school, a university, or a community agency setting. A minimum of 150 clock hours required.
Prerequisites: CNSL 5063.

**CNSL 5083 Crisis and Trauma Counseling with Children: 3 semester hours.**
This course provides students with foundational knowledge of the impact of crisis, disasters, and other trauma-causing events on people as well as the principles of crisis intervention for people during crisis, disasters and other trauma-causing events. The counselors' roles and responsibilities as members of an interdisciplinary emergency management response team during a crisis, disaster or other trauma-causing event and the operation of emergency management systems will be studied.
Prerequisites: CNSL 5213 and CNSL 5143 and CNSL 5023 and CNSL 5153.

**CNSL 5093 Educational Statistics: 3 semester hours.**
Basic educational statistics course for master's degree candidates in counseling. Includes concepts and operations as applied to frequency distributions, graphing techniques, measurement of central tendency and variability, normal distribution curves, sampling theory and tests of significant differences between related and independent samples. Computer application packages and their utilization in classrooms and social agencies are also introduced.

**CNSL 5113 Career Development Counseling: 3 semester hours.**
A study of major vocational development and career choice theories. Sources and use of educational and career information; community resources; and use of interest and aptitude instruments in career/vocational decision-making. Individual and group career counseling practice emphasized.

**CNSL 5123 Assessment Evaluation and Interpretation of Student Data: 3 semester hours.**
An examination of several instruments used to measure achievement, aptitude, interest and personality, and to collect non-test data. Emphasis on selection and use of these instruments for individual and group assessment, and on techniques of interpretation. Ethical and legal issues of testing addressed.
Prerequisites: CNSL 5143 and CNSL 5023 and CNSL 5153.

**CNSL 5133 Group Dynamics: 3 semester hours.**
Theory and practice in group work. Examination of types of groups; group processes and theories; techniques and methods of practice in group counseling. Ethical and professional issues addressed. Group participation and facilitation required.

**CNSL 5143 Human Growth and Development: 3 semester hours.**
A study of the growth and development of the individual. Emphasis on stages of human intellectual, physical, social, and emotional development throughout the lifespan.

**CNSL 5153 School Counseling in a Multicultural Society: 3 semester hours.**
A study of the sociological and cultural factors impacting individuals within a multi-cultural setting. Emphasis on understanding, serving, and managing in multi-racial, multi-ethnic, and multi-cultural settings.

**CNSL 5163 Research and Measurement in Counseling: 3 semester hours.**
General orientation research course for master's degree candidates in counseling. The course considers the nature of research problems and techniques used by investigators in solving those problems. Study is made of types and methods of educational research, the collecting of data, analyzing and sharing of data with public. The student is expected to complete a research project or field study utilizing appropriate methods of educational research.
Prerequisites: CNSL 5093.

**CNSL 5173 Indiv Intel Test: 3 semester hours.**
This course is designed to provide an in-depth overview of the theories, research, and professional practice of assessing the intellectual ability of children, adolescents, and adults. The focus of the course is on developing knowledge about the theoretical and empirical foundation for, and the limitations of, the assessment of intellectual ability. In addition, the focus of the course is on development of practical skill and expertise in the process of administering, scoring, interpreting, and reporting on the results of the most commonly used measures of intellectual ability. The final focus of the course is on developing knowledge of and appreciation for critical professional and ethical issues related to the practice of assessing intellectual ability.
CNSL 5183 Special Topics Cnsl: 3 semester hours.
This course is a study of the ethical standards that govern the professional practice of counselors. This course examines ethical considerations in the area of professional identity from the Council of Accreditation of Counseling and Related Educational Programs (CACREP) and the examination of the development of professional counselors as evidenced by the 2005 American Counseling Association.

CNSL 5193 Play Therapy: 3 semester hours.
This course is designed to expose the therapeutic meaning and function of play and develop an understanding of the major theories of play therapy. Participants will be exposed to the history and development of play therapy while understanding the rationale for selecting certain toys and materials for the play room. Attention will be given to the child's world by using the child centered play therapy approach as participants examine the process, the problems, and current issues in working with special populations.

CNSL 5203 Drugs And The Indiv: 3 semester hours.
The purpose of the course is to provide the knowledge and understanding so that students have the basic competence to work with substance abusing or substance dependent clients. This course will examine the treatment issues and theoretical models involved in the treatment of drug dependencies and the effects of them on the individual, families, employment, and society. Topics include: counselor characteristics, legal and ethical issues facing substance abuse counselors, issues of diversity and treatment, group counseling, family counseling, codependency and enabling, and modalities of treatment.

CNSL 5213 Professional Ethics for School Counselors: 3 semester hours.
This course is a study of the ethical standards that govern the professional practice of counselors. This course examines ethical considerations in the area of professional identity from the Council of Accreditation of Counseling and Related Educational Programs (CACREP) and the examination of the development of professional counselors as evidenced by the 2005 American Counseling Assoc.

CNSL 5503 School Counseling Internship I: 3 semester hours.
The internship is a culminating experience that seeks to provide candidates with a supervised experience in a school counseling position. Here, interns will continue to exhibit appropriate dispositions and to integrate their knowledge and skills as they apply them to every aspect of the work in this setting. Prerequisites: CNSL 5013 and CNSL 5123.

CNSL 5513 School Counseling Internship II: 3 semester hours.
The internship is a culminating experience that seeks to provide candidates with a supervised experience in a school counseling position. Here, interns will continue to exhibit appropriate dispositions and to integrate their knowledge and skills as they apply them to every aspect of the work in this setting. Prerequisites: CNSL 5503.

CNSL 5993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

Criminal Justice (CRJS)

Courses

CRJS 1111 Introductory Seminar in Criminal and Juvenile Justice: 1 semester hour.
An overview of the professional opportunities available in criminal justice, juvenile justice and related fields. Students will be introduced to the importance of professional relationship building, the value of internships, and the myriad professional job opportunities available in both juvenile and criminal justice.

CRJS 1123 Crime in America: 3 semester hours.
The course requires that students critically examine and analyze crime issues and trends in America. It includes presentations from active practitioners and researchers in the field of criminal justice on the current state of crime in America and an examination of offenders' rationale for crime. Students will express their ideas effectively through written, oral or visual means. They will compare empirical and quantitative data on typologies of crime, offenders and victims in America. The course addresses cultural and subcultural influences on crime, civic engagement and the ability to engage effectively in regional, national and global communities toward crime prevention.

CRJS 1133 Principles of Criminal Justice: 3 semester hours.
Inquiry and evaluation of the principles, philosophy and history of criminal justice including the constitutional restraints imposed on criminal justice officials. Emphasis will be on the criminal justice officials' role in the prevention and control of crime and delinquency. Requires effective written, oral and visual expression of ideas. Students will compare empirical and quantitative data on typologies of crime, offenders and victims in America. The course addresses cultural and sub-cultural influences on crime, justice, civic responsibility and the ability to engage effectively in regional, national and global communities to understand crime and crime prevention.

CRJS 2113 Intro Geog Info Sys: 3 semester hours.
An introduction to the fundamentals of Geographic Information System (GIS) and science and art of making maps. The course introduces students to the basic principles of using GIS as tool for managing and analyzing spatial data.

CRJS 2341 Practical Forensic Science: 3 semester hours.
Introduces forensic crime scene investigation (CSI) and examines methods utilized in the forensic analysis of crime scenes, pattern evidence, instruments, firearms, questioned documents, and controlled substances.

CRJS 2413 Police Systems and Practices: 3 semester hours.
A study of the structural aspects and principles of personnel management, program development, fiscal management, and other major components of police organization.
CRJS 2423 Introduction to Criminal Investigation and Identification: 3 semester hours.
A survey of scientific crime detection methods, the identification and presentation of evidence. Instrumentation, and crime report writing.

CRJS 2433 Police Community Relations: 3 semester hours.
An examination of various aspects of police-community relations. It includes the effects of various forms of policing styles on community dynamics, misperceptions and bias on the part of both communities and the police. Other topics include civil rights and civil liberties as they relate to law enforcement policy.

CRJS 2443 Introduction to Homeland Security: 3 semester hours.
The course will introduce students to the history of the Department of Homeland Security as a federal entity and homeland security as an area of study in the United States. It will include major research and theoretical perspectives that have resulted in significant initiatives to keep persons in the United States safe from various threats.

CRJS 2453 Introduction to Terrorism: 3 semester hours.
The study of the history and development of terrorism the various types of terrorism, including narcoterrorism, religious terrorism, state-sponsored terrorism and domestic terrorism. Emphasis will be placed on counter-terrorism program.

CRJS 2483 Introduction to Emergency Management: 3 semester hours.
This course presents the theories, principles, and approaches to managing both natural and man-made emergencies. The philosophy of Comprehensive Emergency Management will be discussed with the four attendant steps which include mitigation, preparedness, response, and recovery. An anaylsis of past disasters will be presented along with their impacts on policy formation leading up to the current FEMA all-hazards approach. The role, duties, an importance of the Emergency Manager will be discussed. Finally, legal issues involving emergency management will be presented.

CRJS 2513 Corrections: Systems and Practices: 3 semester hours.
An examination of the organization, administration and management of correctional facilities and programs in the United States. It includes a study of the populations served, sentencing structures and their outcomes for the individuals, families and communities involved.

CRJS 2523 Alternatives to Incarceration: 3 semester hours.
An examination of various correctional alternatives to incarceration including probation, parole, developments in the technological monitoring of offenders, and community-based reintegration and rehabilitation efforts.

CRJS 2613 Court Systems and Practices: 3 semester hours.
The legal procedures for arrest, complaint, presentation before the magistrate, grand jury consideration, indictment or waiver, arraignment, and the admissibility of evidence on these issues; pretrial matters, post-verdict motions, sentencing, and appeal.

CRJS 2643 Criminal Procedure: 3 semester hours.
An examination of the Fourth, Fifth and Sixth Amendments regarding search and seizure, warrant requirements, the right to counsel, confessions, and the admissibility of evidence.

CRJS 2663 Evidence Law: 3 semester hours.
A study of Evidence Law with an emphasis on burden of proof, relevance, judicial notices, real and demonstrative evidence (including documents), the Hearsay Rule and its exceptions, privileges, unlawfully obtained evidence, and presumptions of guilt and innocence.

CRJS 2713 Juvenile Justice Systems: 3 semester hours.
An overview of the Juvenile Justice System including research and theoretical perspectives. It includes an in-depth study of the system and early decision-making process with focus on the police, the juvenile courts and the limits on juvenile sanctions. Community-based corrections with a historical perspective on juvenile probation and juvenile aftercare are also examined. A thorough working knowledge of institutionalization in terms of the treatment of juvenile offenders is provided.

CRJS 2723 Theories and Development of Juvenile Gangs: 3 semester hours.
This course is a comprehensive, in-depth coverage of historical and contemporary reactions to juvenile gangs. Among the key areas to be covered will be the legal and social definitions of juvenile delinquency, the theories, the social context, and the institutional responses. An understanding of public policy and its impact on juvenile gangs will complete the course.

CRJS 2743 Law of Juvenile Justice: 3 semester hours.
The course offers an examination of both substantive and procedural laws related to juvenile justice including criminal law, criminal procedure, evidence, and family codes. The course also examines the institutions that enforce these laws and the principal actors involved. Finally, the course examines current trends and projections in juvenile justice.

CRJS 2813 Computer Applications in Criminal Justice: 3 semester hours.
An introduction to the interface necessary for functioning effectively in various areas of criminal justice. The course also examines how the use of computers and related technology has changed the process of maintaining law and order nationally and internationally. It includes a review of social engineering techniques (ways that people might enhance personal and institutional security) and the field of computer forensics.

CRJS 2913 Practical Forensic Science: 3 semester hours.
Introduces forensic crime scene investigation (CSI) and examines methods utilized in the forensic analysis of crime scenes, pattern evidence, instruments, firearms, questioned documents, and controlled substances.

CRJS 3313 Prevention and Control: 3 semester hours.
A systematic examination of various crime control efforts involving primary and secondary prevention and the implementation of treatment programs. The course also offers a review of the best practices in crime control and prevention.
CRJS 3463 Transnational Crimes: 3 semester hours.
The study of criminal behavior that transcends traditional national boundaries. The course will focus on the origins of these types of crimes and the efforts of law enforcement to address them. Cyber-terrorism, cyber-crimes, human trafficking, drug trafficking and international crimes will be reviewed.

CRJS 3513 Crime Scene Investigation: 3 semester hours.
An introduction to the techniques and tools for investigating a crime scene. Legal aspects of the processes relevant to various types of evidence are reviewed and practiced given legal standards for evidence.

CRJS 3523 Forensic Investigation of Sex Crimes: 3 semester hours.
The investigation of sex crimes is a specific function for many criminal justice agencies, requiring an understanding of how to investigate, process crime scenes, interact with victims and offenders, and prepare for court.
Prerequisites: CRJS 3513.

CRJS 3533 Technology and Crime: 3 semester hours.
A review of trends, and techniques involved in the use of technology to commit crime, or as the target of the crime. There is also a focus on investigative tools and technique for extracting evidence from technological sources, given legal and professional standards of evidence.
Prerequisites: CRJS 3513.

CRJS 3543 Forensic Photography: 3 semester hours.
An introduction to the techniques of forensic photography, including step-by-step process of handling crime scene evidence and maintenance of the crime scene, digital imaging, and the technology of the future.
Prerequisites: CRJS 3513.

CRJS 3623 Criminal Law: 3 semester hours.
A study of basic principles of substantive criminal law which include definitions of crimes against persons and property. Emphasis is on the Texas Penal Code as it pertains to murder, capital murder, voluntary homicide, criminal negligence, homicide, and sexual offenses. Additional focus will be placed on the Texas Penal Code related to arson, robbery, burglary, theft, forgery, embezzlement, and false pretense.

CRJS 3633 Drugs, Crime and Society: 3 semester hours.
This course will examine the relationship between drugs, alcohol, crime and human behavior. It will include an examination of the social construction of drug issues, the war on drugs, drug control policy, and the function of drugs in popular cultural mediums. The course will also examine topics that include asset forfeiture, the confidential informant role in drug enforcement, drug ethnography, the leading theories of drug use and abuse, community and corrections-based substance abuse treatment, and drug enforcement strategies.

CRJS 3733 Juvenile Probation and Parole: 3 semester hours.
A survey and analysis of juvenile probation aftercare. The course addresses the history and legal aspects of probation, role and responsibilities of the juvenile probation officer including pre-sentence investigation reports, conducting risk assessment, case planning, caseload supervision, probation officer safety, professional ethics, and trends in the field.

CRJS 3823 Criminal Justice Research Methods I: 3 semester hours.
An introduction to research techniques such as formulating research questions, research design, and data collection methods such as surveys and case studies. The course also examines research ethics, locating data and navigating the special requirements for conducting research with protected populations such as incarcerated adults and juveniles. Students are also introduced to computer applications for research.

CRJS 3933 Minorities and the Criminal Justice System: 3 semester hours.
An analysis of problems frequently encountered by minorities in the American justice system. This includes police-minority confrontations, an examination of possible bias throughout various levels of the justice system and the contributions of minority criminal justice practitioners, scholars, and activists to the development of the field of criminal justice.

CRJS 4223 Criminal Justice Management Principles: 3 semester hours.
A study of basic criminal justice management theories and contemporary practices. This includes an examination of the unique behaviors, social skills and organizational techniques necessary for the criminal justice professional to be successful in various settings. Special attention is given to relating effectively with superiors, colleagues, subordinates and various members of the public impacted by criminal justice agencies.

CRJS 4416 Undergraduate Internship in Criminal Justice: 6 semester hours.
A student may be required to satisfactorily complete a minimum of 200 hours (over the course of a semester) of the internship in an approved criminal justice setting preferably between the junior and senior year. This internship program is specifically designed to acquaint the student with practical aspects of criminal justice.

CRJS 4533 Interview and Interrogation Techniques: 3 semester hours.
The course introduces techniques of interviewing victims and witnesses and interrogating suspects and includes legal issues and various methods to enhance information obtained including analysis of verbal and non-verbal actions and how they relate to truth or deception of persons during the interview process.

CRJS 4553 Death Investigations: 3 semester hours.
The course provides an overview of various investigative methods utilized in general death investigation, as well as specific investigations involving suicides, accidents, homicides, and child deaths. The importance of crime scene analysis; investigative processes; crime scene management; case management, and scientific tools necessary for death investigations will be discussed.
Prerequisites: CRJS 3513.
CRJS 4563 Enterprise Crime Investigation: 3 semester hours.
This course provides an overview of enterprise crime including the definitions and types of criminal activity that encompass enterprise crime. The impact of enterprise crime and criminal enterprise groups on local and global communities will also be examined. The importance of crime investigations along with the investigative tools and techniques will be discussed. Prerequisites: CRJS 3513.

CRJS 4613 Courtroom Testimony and Procedure: 3 semester hours.
This course covers the historical and contemporary issues surrounding courtroom evidence and focuses on testimony decisions, preparation for trial of expert and lay witnesses, and procedures used in presenting the evidence.

CRJS 4623 Evidence Processing: 3 semester hours.
This course covers the historical and contemporary issues surrounding courtroom evidence and focuses on testimony decisions, preparation for trial of expert and lay witnesses, and procedures used in presenting the evidence.

CRJS 4653 Constitutional Rights of the Criminally Accused: 3 semester hours.
A study of the rights of the criminally accused according to the United States Constitution.

CRJS 4716 Internship in Criminal Justice and Criminalistics: 3-6 semester hour.
A student may be required to complete satisfactorily a minimum of 200 hours internship at an approved criminal justice/criminalistic setting preferably in the senior year during a regular semester. This internship program is specifically designed to acquaint the student with practical aspects of criminal justice/criminalistic.

CRJS 4833 Seminar: Criminal Justice Research Methods II: 3 semester hours.
Direction in performing an original research project. This involves an examination of how a choice of research question influences methodology. Basic statistical concepts and techniques for obtaining and analyzing large quantitative data sets will be reviewed. The course also examines techniques for conducting qualitative research and a familiarity with the latest qualitative research software packages. Prerequisites: CRJS 3823.

CRJS 4913 Comparative Criminal Justice Systems: 3 semester hours.
An analysis of criminal justice systems and institutions outside of the United States.

CRJS 4923 Criminology: 3 semester hours.
Focus will be a comprehensive analysis of the sociological, psychological and biological aspects of deviant human behavior.

CRJS 4943 Seminar: Contemporary Issues in Criminal Justice: 3 semester hours.
Focus on recent significant and controversial issues which affect the administration of justice especially in law enforcement, the courts and corrections.

CRJS 4953 Seminar: Special Topics in Criminal Justice: 3 semester hours.
This course has a revolving theme from semester to semester. Theme areas include but are not limited to policing, courts, corrections, ethics, women and crime, economics and crime, white collar crime, terrorism, consensual crime, victimology, alternative dispute resolution, media influences and special topics in juvenile justice. (May be repeated once for credit as the course theme changes).

CRJS 4963 Philosophy of Crime: 3 semester hours.
An examination of religious and economic principles as they shape the definition and response to crime. This includes an analysis of specific concepts such as guilt, shame, care, love, desire and dignity on the evolution of deviance and crime across time and place in the western world.

CRJS 4973 Women and Criminal Justice: 3 semester hours.
An ideological and historical analysis of the role of women and criminal justice as reformers, professionals, scholars, and as offenders.

CRJS 4983 Ethical Decision-Making in Criminal Justice: 3 semester hours.
An overview of ethical theories, concepts, and issues. Illustrates the major unethical themes common in Criminal Justice management. Illustrates ethical dilemmas in policing, courts, prisons, community corrections, and crime prevention. The class works together to develop foundational ethical truths upon which to logically develop practice of moral decision making.

CRJS 4993 Independent Study: 3 semester hours.
Readings, research or fieldwork on selected topics.

Curriculum & Instruction (CUIN)

Courses

CUIN 3003 Educational Foundations: 3 semester hours.
An examination and study of the structure, culture and organization of the American public school and its curriculum. The course requires field-based experiences.

CUIN 3013 Educational Psychology: 3 semester hours.
An examination and study of human growth and development and principles of assessing/evaluating students' educational progress. The course requires field-based experiences.
CUIN 4003 Instructional Planning and Assessment: 3 semester hours.
Instruction and practice in planning instructional lessons. Developing and applying teacher-made tests to assess secondary student progress. The course requires field-based experiences.

CUIN 4013 Instructional Methods and Classroom Management: 3 semester hours.
Instruction and practice using various teaching strategies and management techniques for the secondary classroom. The course requires field-based experiences.

CUIN 4103 Instructional Planning and Assessment: 3 semester hours.
Instruction and practice in planning instructional lessons, developing and applying teacher-made tests to assess elementary students' progress. The course requires field-based experiences.
Prerequisites: CUIN 3003 and CUIN 3013.

CUIN 4113 Instructional Methodology and Classroom Management: 3 semester hours.
Instruction and practice using various teaching strategies and management techniques for the elementary classroom. The course requires field-based experiences.
Prerequisites: CUIN 3003 and CUIN 3013.

CUIN 4403 Student Teaching/Elementary I: 3 semester hours.
Supervised practicum experiences in a field setting devoted to elementary instruction. Required of students seeking additional teacher certification in an area of specialization and/or All-Level certification.

CUIN 4416 Student Teaching/Elementary II: 6 semester hours.
Supervised practicum experiences in a field setting devoted to elementary education classroom instruction. Required of students seeking only teacher certification in elementary education.

CUIN 4433 Student Teaching/Early Childhood Education: 3 semester hours.
Supervised practicum experiences in a field setting devoted to early childhood classroom instruction.

CUIN 4443 Student Teaching/Special Education: 3 semester hours.
Supervised practicum experiences in a field setting devoted to special education classroom instruction.

CUIN 4813 Student Teaching Secondary - All Level: 3 semester hours.
Supervised practicum experiences in a field setting devoted to secondary education. Required of students seeking All-Level certification.

CUIN 4826 Student Teaching Secondary II: 6 semester hours.
Supervised practicum experiences in a field setting devoted to secondary education classroom instruction. Required of students seeking only one teacher certification in secondary education.

CUIN 5003 Foundations of Secondary Schools of the State and Nation: 3 semester hours.
A university based course designed with a field component for graduate students seeking initial certification in secondary education. The course focuses on the internal and external factors which contribute to school culture. The student studies how teacher-teacher relationships, teacher-pupil relationships, and school-home relationships impact student learning. The student also investigates the requirements, expectations, and constraints associated with teaching in Texas and understands his or her role in operating effectively as a teacher in Texas.

CUIN 5013 Developmental Characteristics of Secondary School Youth: 3 semester hours.
A university based course designed with a field component for graduate students seeking initial certification in secondary education. The course focuses on the developmental characteristics of secondary school youth which can have an impact on the accomplishment of learner outcomes. Contemporary models of human growth and development are investigated with emphasis being placed on individual differences in physical, emotional, social and intellectual growth. An analysis of the needs of students with differences in culture, learning styles, self-concept, values, and family/peer/school relationships is accomplished.

CUIN 5023 Strategies for Planning and Assessing Instruction: 3 semester hours.
A proficiency-driven course designed with a field component for graduate students seeking initial certification in secondary education. The course focuses on strategies documented as effective in planning learner centered instruction for students representing various learning levels/styles. Informal and formal assessment strategies which are designed to determine the degree to which learners are accomplishing in predetermined objectives are also analyzed. During the field experiences the student demonstrates that he/she can utilize the strategies in constructing learner centered lesson plans and assessment tools.
Prerequisites: CUIN 5003 and CUIN 5013.

CUIN 5033 Research-Based Methods for Classroom Instruction and Management: 3 semester hours.
A proficiency-driven course designed with a field component for graduate students seeking initial certification in secondary education. The course focuses on effective teaching practices which have been documented as effective in creating a positive learner centered environment, managing individuals and groups through the learning process, and utilizing instructional strategies which maximize student participation in the learning process. During field experiences, the student demonstrates having the ability to utilize pre-planned strategies with students representing varying learning levels/styles.
CUIN 5043 Post-Baccalaureate Internship: Phase I: 3 semester hours.
A one semester internship for graduate students who are seeking initial certification in secondary education. The Phase I internship must be completed during the fall semester when the student works as a “teacher of record” under the guidance of an assigned mentor. Performances of the intern are evaluated by the assigned mentor, the building principal and an assigned university supervisor. A grade of “Incomplete” will be awarded at the end of the Phase I Internship with a final grade being awarded at the end of Phase II Internship.

CUIN 5053 Post-Baccalaureate Internship: Phase II: 3 semester hours.
A one semester internship for graduate students who are seeking initial certification in secondary education. The Phase II Internship must follow the completion of the Phase I Internship and must be completed during the spring semester when the student is employed as a “teacher of record” under the guidance of an assigned mentor. The performance of the student during the Phase II Internship is evaluated by the mentor, building principal, and university supervisor. Grades for the two semesters of internship (Phase I and Phase II) will be awarded at the end of Phase II.

Curriculum (CURR)

Courses

CURR 1003 Prior Learning Assessment Theory and Practice: 3 semester hours.
This course is designed to assist students in identifying area of learning that may be evaluated for college-level credit equivalency. The course guides students through the preparation and compilation of all components required for the evaluation of a portfolio of prior learning. Students will use critical reflection skills to conceptualize the value of prior learning and its implications for future learning. Adult learning theory, models, and concepts are discussed and applied to case studies. Admission to course requires permission from Department Head and Learning Counts Coordinator.
Prerequisites: ENGL 1123 and ENGL 1133.

CURR 1011 Effective Learning: 1 semester hour.
The course content is divided into a four-part model (the Effective Learning Model) consisting of self-assessment, cognitive theories, self-regulation and strategies for self-change. Each part overlaps the other to form a strong framework to foster the student's understanding of the learning process and to help students maximize their learning potential.
Prerequisites: CURR 1013.

CURR 1013 Principles of Effective Learning: 3 semester hours.
A study of the research and the theory in the psychology of learning, cognition, motivation, as well as the factor that influence learning, and the application of learning strategies. Theoretical model of strategic learning, cognition, and motivation serves as the conceptual basis for instruction. The course content is divided into four-part model (the Effective Learning Model) consisting of self-assessment, cognitive theories, self-regulation, and strategies for self-change.

CURR 4993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

CURR 5003 Theory and Dynamics of Curriculum and Instruction: 3 semester hours.
A curriculum of theoretical and logical structures that exceeds the essential elements and promotes higher thinking skills, explores consideration of implications for bilingual, migrant and exceptional education. Expands integration of technology in influencing implementation, planning and evaluation of curriculum at all levels of teaching.

CURR 5133 Principles of Instructional Design: 3 semester hours.
Development of competencies related to translating general and theoretical knowledge about learning and instruction into specifications for materials, devices, or settings.

CURR 5143 Managing Classroom Interaction: 3 semester hours.
Identification of a practice with the skills and dynamics of instructional behavior. Examination of the predictability of student response behavior when strategies are selected according to pre-determined criteria.

CURR 5503 Curriculum Evaluation: 3 semester hours.
An examination of the several procedures used to evaluate curricular materials and development activities. Formative and summative evaluation methodologies are compared and contrasted and the consequences of model evaluative systems demonstrated.

CURR 5993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

Dance (DANC)

Courses

DANC 1031 Modern Dance I: 1 semester hour.
Instruction is offered at beginning level skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.
**DANC 1041 Folk and Ballroom Dance I: 1 semester hour.**
Instruction is offered at beginning level skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 1051 Tap Dance I: 1 semester hour.**
Instruction is offered at beginning level skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 1171 Modern Jazz I: 1 semester hour.**
Instruction is offered at beginning level skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 1191 Ballet I: 1 semester hour.**
Instruction is offered at beginning level skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 1261 Body Mechanics and Rhythmic Activities: 1 semester hour.**
Instruction is offered at beginning level skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 2011 Modern Dance II: 1 semester hour.**
Designed for the student with immediate and/or advanced level of skills; emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 2021 Tap Dance II: 1 semester hour.**
Designed for the student with immediate and/or advanced level of skills; emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 2022 Fundamentals of Dance: 2 semester hours.**
Application of theory and fundamental skills in dance.

**DANC 2061 Folk and Ballroom Dance II: 1 semester hour.**
Designed for the student with immediate and/or advanced level of skills; emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 2071 Modern Jazz II: 1 semester hour.**
Designed for the student with immediate and/or advanced level of skills; emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 2151 Ballet II: 1 semester hour.**
Designed for the student with immediate and/or advanced level of skills; emphasis on the development of total fitness and recreational skills for leisure time. All classes or coeducational.

**DANC 4022 Choreography: 2 semester hours.**
Introduces the principals of motor control and motor learning with emphasis on the application of these principals in the neurologic population. Prerequisites: DANC 1031 and DANC 1191 and DANC 2022.

**DANC 4032 Performance: 2 semester hours.**
This course will use both choreography approached to creating dance as well as collaboration with musical composition, text, visual design and understanding criteria and professionalism with a product setting. Prerequisites: DANC 1031 and DANC 1191 and DANC 2022.

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**Design (DESN) Digital Media (DMGA) Courses**

**DGMA 2173 Fundamentals of Digital Imaging: 3 semester hours.**
Introduction to basic image manipulation and vector-based graphic creation with emphasis on technical proficiency, artistic mastery, aesthetic judgment, photographic enhancement and multi-image composition. Prerequisites: ARTS 1153.

**DGMA 2183 Fundamentals of Interactive Media: 3 semester hours.**
This course is an introduction design principles of interactive website design with an emphasis on technical proficiency, interface design, usability, and aesthetic appeal. Prerequisites: DGMA 2173.

**DGMA 2993 Independent Study: 1-3 semester hour.**
Individual studies in Digital Media Arts.
**DGMA 3123 Layout I: 3 semester hours.**
Introduction to functionality of basic page design with emphasis on design process, grid hierarchy, and conceptual integration of type and image.
Prerequisites: ARTS 1113 and ARTS 1123 and ARTS 1153 and ARTS 2353 and ARTS 2363.
Co-requisites: DGMA 3323, DGMA 3343.

**DGMA 3133 Layout II: 3 semester hours.**
Further development of ability to work conceptually with design problems using multi-page layouts. Topics include concept development, complex sequencing and collateral work.
Prerequisites: DGMA 3123.
Co-requisites: DGMA 3333, DGMA 3353.

**DGMA 3323 Typography I: 3 semester hours.**
Study and exploration into the history of type expressive qualities of letterforms, and visual arrangement of type to support content.
Prerequisites: ARTS 1113 and ARTS 1123 and ARTS 1153 and ARTS 2353 and ARTS 2363.
Co-requisites: DGMA 3123, DGMA 3343.

**DGMA 3333 Typography II: 3 semester hours.**
Continuation of Typography I incorporating more advanced and complex problems.
Prerequisites: DGMA 3332.
Co-requisites: DGMA 3313, DGMA 3335.

**DGMA 3343 Branding: 3 semester hours.**
Examination of corporate brand identity development. Topics include logo development, product packaging, marketing collateral, web and social media branding, and broadcast advertising development.
Prerequisites: ARTS 1113 and ARTS 1123 and ARTS 1153 and ARTS 2353 and ARTS 2363.
Co-requisites: DGMA 3123, DGMA 3323.

**DGMA 3353 Interactive Media: 3 semester hours.**
Focus on web-based visual communication strategies through the design and creation of interactive projects.
Prerequisites: DGMA 3343.
Co-requisites: DGMA 3133, DGMA 3333.

**DGMA 3993 Independent Study: 1-3 semester hour.**
Individual studies in Digital Media Arts.

**DGMA 4143 Problems in Media Arts I: 3 semester hours.**
Advanced examination of visual communication combining theoretical studies with applied problems in graphic design.
Prerequisites: DGMA 3133.
Co-requisites: DGMA 4163, DGMA 4183.

**DGMA 4153 Problems in Media Arts II: 3 semester hours.**
Advanced examination of visual communication combining theoretical studies with applied problems in graphic design.
Prerequisites: DGMA 4143.
Co-requisites: DGMA 4173, DGMA 4193.

**DGMA 4163 Advanced Interactive Media: 3 semester hours.**
Examination of essential methodologies, conceptual skills, and technical knowledge vital to the design, programming and implementation of interactive digital media.
Prerequisites: DGMA 3353.
Co-requisites: DGMA 4143, DGMA 4183.

**DGMA 4173 Social Media Design: 3 semester hours.**
Continuation of DGMA 4163 with an emphasis on applying the principles and practices of social media design to the development of social media campaigns and problems in graphic design.
Prerequisites: DGMA 4163.
Co-requisites: DGMA 4153, DGMA 4193.

**DGMA 4183 Motion Graphics: 3 semester hours.**
Introduction to fundamental concepts for motion graphics with an emphasis on graphic storytelling, storyboarding and screen composition.
Prerequisites: DGMA 3333.
Co-requisites: DGMA 4143, DGMA 4163.

**DGMA 4193 Senior Studio Thesis: 3 semester hours.**
Emphasis on preparing students for Senior Art Exhibition.
Prerequisites: DGMA 4183.
Co-requisites: DGMA 4153, DGMA 4173.

**DGMA 4203 Special Topics in Digital Media Arts: 3 semester hours.**
Examination of current design industry theories, programs, technologies and trends.
DGMA 4319 Senior Studio Thesis: 3 semester hours.
Emphasis on preparing students for Senior Art Exhibition.
Prerequisites: DGMA 4318.
Co-requisites: DGMA 4315, DGMA 4317.

DGMA 4993 Independent Study: 1-3 semester hour.
Individual studies in Digital Media Arts.

Drama (DRAM)

Courses

DRAM 1003 Introduction to Acting: 3 semester hours.
This course is designed to provide the student with the fundamentals for a study of the art of performance (acting). The students will be introduced to acceptable and unacceptable acting techniques.

DRAM 1103 Introduction to Theatre: 3 semester hours.
An orientation course exposing the student to diverse genres of plays and to the various creative, technical and theoretical aspects involved in bringing a play to life. Designed to give the student an understanding of the development and evolution of theatre as reflected in various cultures and societies to enhance student appreciation for how theatre relates to and effects notions of multi-cultural understanding, social responsibility and civic engagement.

DRAM 1111 Theatre Practicum: 1 semester hour.
This is a workshop course in which the student is assigned to a crew for the purpose of introducing the student to the various areas of specialization in the field of Theatre. This course also provides practical application of performance and technical skills needed to enhance theatrical productions.

DRAM 1113 Introduction to Theatre Technology: 3 semester hours.
An introductory course exposing students to the visual elements (scenic, costumes, lighting, sound, etc.) in a production as approached by the designer, director, and actor.

DRAM 1121 Theatre Practicum II: 1 semester hour.
This course is a continuation of DRAM 1111, a workshop course in which the student continues to work with assigned to a crew for the purpose of introducing the student to the various areas of specialization in the field of Theatre. This course provides the student with practical applications of performance and technical skills needed to enhance theatrical productions.
Prerequisites: DRAM 1111.

DRAM 1203 Stagecraft: 3 semester hours.
Fundamentals of set construction. Practical experience in building and painting stage scenery. Each student is required to assist with construction of a set.

DRAM 1323 Stage Movement: 3 semester hours.
A course designed to train the student how to use his body on stage. Techniques involving the application of stage movement to music, prose, and mime.

DRAM 2013 Intermediate Acting: 3 semester hours.
A training course providing the student with the fundamentals of ensemble acting. Includes characterization, play analysis, and stage business.
Prerequisites: DRAM 1003.

DRAM 2111 Theatre Practicum: 1 semester hour.
At this level, the student chooses specific areas of specialization in which to continue working and examining as potential career options in Theatre. Within the chosen specialization crews, the student gains practical application of performance and technical skills needed to enhance theatrical productions.
Prerequisites: DRAM 1121.

DRAM 2121 Theatre Practicum: 1 semester hour.
This course is a continuation of DRAM 2111. The student continues to work within chosen specialization crews for the purpose of gaining knowledge and experience in possible career options in Theatre and to gain practical application of performance and technical skills needed to enhance theatrical productions.
Prerequisites: DRAM 2111.

DRAM 2223 African American Theatre II: 3 semester hours.
Exploring the evolution of African American Theatre from World War I to the present through the examination of plays, theories and social-political themes of the era.

DRAM 3113 Contemporary Theatre: 3 semester hours.
The development of modern theatre from the 19th century concept of realism-naturalism through the present movements away from realism.
Prerequisites: DRAM 1103.
Early Childhood Ed (ECED)

Courses

ECED 3003 Introduction to Early Childhood: 3 semester hours.
Historical, philosophical, and social foundations of early childhood years to include: understanding the principles of underlying social and emotional developments of the young child and the nature of the learner. Observation is included.

ECED 3013 Health/Motor/Physical Development: 3 semester hours.
Fundamentals of health/motor/physical stages and characteristics of development in early childhood with emphasis on health problems common during early childhood; health and safety practices for young children; includes special needs related to young children.

ECED 4003 Communication and Language Development: 3 semester hours.
An overview of theories related to language development and communication usage to demonstrate diverse patterns of verbal and nonverbal communication in the development of the young child.

ECED 4013 Young Child/Cognitive Development: 3 semester hours.
An examination of theories and models in the development of cognition to include stages of development and their characteristics; special needs related to cognition and implications for young children.

ECED 4023 Program Organization: 3 semester hours.
A survey of programs for young children to include criteria for the selection and evaluation of the physical environmental needs of children; emphasis will be placed on legislation and public policy as it affects the school, children and their families.
Prerequisites: ECED 3003 and ECED 3013 and ECED 4003 and ECED 4013.

ECED 4113 Instructional Strategies: 3 semester hours.
A study of instructional strategies for teaching content to include methodology, setting goals/objectives, evaluating, and creating a conducive learning environment. Emphasis will be placed on alternative instructional strategies and procedures. (15 clock hours of simulated and practical experiences included).

ECED 4123 Clinical Experiences: 3 semester hours.
Field-based experiences involving young children in a classroom setting to include 45 clock hours of classroom observation, recording behavior, planning activities, providing for individual needs, working with other professionals, understanding conference techniques, and professional ethics.

ECED 5303 Development of the Young Child: 3 semester hours.
A study of the sequential stages of growth and maturation of the young child to include physical, social, emotional and cognitive development.

ECED 5313 Foundations of Early Childhood Education: 3 semester hours.
An overview of the historical, philosophical, and theoretical development of early childhood and its relationship to child development.

ECED 5323 Methods and Materials for Teaching Young Children: 3 semester hours.
A study of the teaching strategies, techniques and materials designed to enhance learning experiences for young children.

ECED 5333 Assessment Techniques in Early Childhood Education: 3 semester hours.
A study of evaluative instruments appropriate for the assessment of young children's intellectual, social and motor development. Practical experiences are provided in test administration, scoring, interpretation and utilization of results.

ECED 5343 Organization and Administration of Programs for Young Children: 3 semester hours.
An examination of the organization and administration of early childhood programs with emphasis on early childhood. A study of the impact of legislation and professional organizations on program operations.

ECED 5353 Seminar in Early Childhood Education: 3 semester hours.
An analysis of current research literature trends and issues in Early Childhood Education.

ECED 5363 Early Childhood Practicum: 3 semester hours.
Planned observation and interaction experiences with young children in a classroom setting. Organized feedback sessions are provided in structured seminars.

Economics (ECON)

Courses

ECON 2003 Fundamentals of Economics: 3 semester hours.
Designed for non-business majors, this course will synthesize, analyze and evaluate fundamental principles of micro and macroeconomics in a global setting using basic quantitative and graphical tools. More specifically, students will: develop.

ECON 2113 Principles of Microeconomics: 3 semester hours.
An introduction to the principle of microeconomics, which include supply and demand analysis, market equilibrium, production costs faced by firms, the production process, as well as the analysis of market structures, such as perfect competition and the monopoly firm.
**ECON 2123 Principles of Macroeconomics: 3 semester hours.**
Analysis of the principles and problems of money and banking, national income, public finance, international trade, and economic growth.

**ECON 3313 Economic Development: 3 semester hours.**
A study of the economic factors affecting economic growth and development. Emphasis is on experience of third world countries.
Prerequisites: ECON 2113 and ECON 2123.

**ECON 3323 Public Finance: 3 semester hours.**
An examination of the public sector and its contribution to economic welfare. An analysis of alternative forms of taxation and their impact on micro- and macroeconomic decision making.
Prerequisites: ECON 2113 and ECON 2123.

**ECON 3333 Economic and Human Resources: 3 semester hours.**
Examines population growth, poverty, discrimination, human resource development, and training and education. The course is oriented toward explaining the principles, effects, and policies related to each topic.
Prerequisites: ECON 2113 and ECON 2123.

**ECON 4213 Intermediate Microeconomic Analysis: 3 semester hours.**
Analysis of the principles governing price and output decisions of business firms and the allocation of resources under various market structures.
Prerequisites: ECON 2113.

**ECON 4223 Intermediate Macroeconomic Analysis: 3 semester hours.**
Analysis of determinants of the aggregate level of employment, output and income of an economy.
Prerequisites: ECON 2113 and ECON 2123.

**ECON 4303 Money and Banking: 3 semester hours.**
Money, credit, commercial and central banking, financial intermediaries, treasury operations, monetary theory and policy, and foreign exchange.
Prerequisites: ECON 2123 and ECON 2113.

**ECON 4343 International Trade: 3 semester hours.**
Principles and practices of foreign trade with special emphasis on international economic relations. Analysis of foreign exchange, balance of payments, foreign investment, tariff history and policy, and currency problems.
Prerequisites: ECON 2113 and ECON 2123.

**ECON 4353 Urban Economics: 3 semester hours.**
Economic analysis of the major problems facing urban areas. Study of the theory of urban industrial and residential locations, including patterns of urban growth and development.
Prerequisites: ECON 2113 and ECON 2123.

**ECON 4373 Economic Research: 3 semester hours.**
Introduces the fundamentals of systematic social science research methods commonly used in economics and business disciplines. Includes problems of measurement, study design, sampling, reliability, validity, and ethical considerations.

**ECON 4993 Independent Study: 3 semester hours.**
Reading, research, and/or field work on selected topics.

**ECON 5003 Concepts of Economic Analysis: 3 semester hours.**
Analysis of supply and demand, production and cost functions, price and output determination under different market conditions, and resource pricing.
Means of national income and output determination, and issues related to unemployment, inflation, business cycles, monetary and fiscal policies, economic development and growth, and the global linkage of national economies.

**ECON 5103 Managerial Economics: 3 semester hours.**
Economic theory and tools needed to make sound managerial decisions for optimal outcomes, theoretical and empirical demand functions, theoretical and empirical production and cost functions, profit maximization under different market conditions over time and under uncertainty, game theory, economics of information and government in the market place.

**ECON 5313 International Trade and Business: 3 semester hours.**
Introduces the principles and practices of international trade emphasizing international business opportunities and challenges. Topics include overview of globalization, basic trade models, tariffs and quotas, labor and environmental controversies in trade, fundamentals of export marketing, economic integration in North America, and international business environment in major U.S. export markets.
Prerequisites: ECON 5003.
Economics for Executives (EECO)

Courses

*EECO 5103 Economics in the Global Environment: 3 semester hours.*
The student will explore the global economy and its potential to affect management decision making. The course will focus on export, import, international trade, international finance, and macro and micro perspectives of the firm relating to the global economy. Highlights include study of the global economy, global market structure and policy, pricing in a global market, and the economics of multinational firms. The graduates will gain an awareness and skills important in negotiating contracts and agreements across national boundaries.

Education Foundations (EDFN)

Courses

*EDFN 5103 Foundations of Educational Research: 3 semester hours.*
Basic concepts of research design, strategies of experimental, historical and descriptive research, and basic statistical procedures are introduced.

*EDFN 5113 Psychology of Learning and Development: 3 semester hours.*
An analysis of mental processes involved in learning the developmental relationship of these processes. In-depth study of major theories which relate learning, development, and physiology.

*EDFN 5123 Socio-Cultural Issues in Education: 3 semester hours.*
An analysis of historical, philosophical, and multi-cultural issues in American education and their implications for the setting of standards that govern educational policy and practice.

*EDFN 5143 Advanced Educational Statistics: 3 semester hours.*
Computer applications and Statistical used in educational measurement and research design, analysis of variance, and introduction to non-parametric statistics.

*EDFN 5903 Thesis Research: 3 semester hours.*
Selection, preparation, and presentation of a research proposal for purposes of completing thesis requirement.

*EDFN 5923 Master’s Seminar: 3 semester hours.*
Investigation and analysis of research in the field of curriculum and instruction. Major paper a requirement for this course.
Prerequisites: EDFN 5103.

Education Technology (EDTC)

Education Administrative (ADMN)

Courses

*ADMN 5003 Theoretical Foundations of EC-12 School Administration: 3 semester hours.*
A study of educational administration, basic concepts of administrative theory and practice, and the relationship of administrative practice to school organization and control.

*ADMN 5013 Educational Administration: Theory, Practice and Research: 3 semester hours.*
The analysis and study of theory, practice, and research as they relate and interrelate to effective educational management. This course includes an in-depth study of contemporary research and practice in educational administration.

*ADMN 5023 Public School Law and Human Resource Management: 3 semester hours.*
An examination and study of legal and policy principles as they apply to public education.
Prerequisites: ADMN 5103.

*ADMN 5033 School Business Management: 3 semester hours.*
Management techniques for the school administrator in the areas of preparing and managing the school budget, in-school accounts, and the financial auditing process.

*ADMN 5043 The Role of the Principal: 3 semester hours.*
Problems in elementary and secondary school administration with emphasis on the organization, administration, and supervision of curricular and extra-curricular programs, and the management of school personnel and students.
Prerequisites: ADMN 5003.

*ADMN 5053 Management of Special Programs: 3 semester hours.*
Administrative and management techniques for implementing special school programs in the areas of special education, reading, career education, vocational-technical education and pupil services.
ADMN 5063 Problems in Education Administration: 3 semester hours.
Study and analysis of contemporary issues related to the administrative function in an educational setting.

ADMN 5073 School Curriculum and Instructional Leadership: 3 semester hours.
An examination of educational leadership as it relates to curriculum development and improvement. Consideration is given to the administrator's role in identifying and implementing innovations in curriculum construction at all levels; furnishing leadership in coordinating educational offerings in elementary and secondary schools; diagnosing and prescribing learning activities for all students' needs; planning and evaluating curriculum content and changes; and designating personalized programs in specific skill areas such as reading, math, etc.

ADMN 5083 Special Topics in Educational Administration: 3 semester hours.
The purpose of this course is to provide students an opportunity to research selected topics in an identified area of educational administration.

ADMN 5093 Educational Statistics: 3 semester hours.
Basic educational statistics course for master's degree candidates in administration. Includes concepts and operations as applied to frequency distributions, graphing techniques, measurement of central tendency and variability, normal distribution curves, sampling theory and tests of significant differences between related and independent samples. Computer application packages and their utilization in classrooms and social agencies are also introduced.

ADMN 5103 School Personnel Administration: 3 semester hours.
The administration of school personnel services, including standards and procedures of the personnel office and the supervision and evaluation of personnel records and policies.

ADMN 5113 Planning and Managing Educational Facilities: 3 semester hours.
Educational facilities planning with emphasis on design, financing, and management.

ADMN 5123 School Finance: 3 semester hours.
Fiscal planning for educational excellence. Includes systems of needs assessment, budget preparation, and management. Federal, state, and local resources for financing education.

ADMN 5133 School-Community Relations: 3 semester hours.
A study of the relationships between the school and other elements of the community. Insight into the development of a comprehensive school-community relations program.

ADMN 5163 Research and Evaluation in Schools: 3 semester hours.
General orientation research course for master's degree candidates in administration. The course considers the nature of research problems and techniques used by investigators in solving those problems. Study is made of types and methods of educational research, the collecting of data, analyzing and sharing of data with public. The student is expected to complete a research project or field study utilizing appropriate methods of educational research.
Prerequisites: ADMN 5093 or CNSL 5093.

ADMN 5173 Computer Applications for Administrators: 3 semester hours.
Application of computers and selected software to information management, scheduling, and other functions of administrators.

ADMN 5203 Leadership in a Multicultural Society: 3 semester hours.
Leadership in a Multicultural Society addresses theories, research and practices for achieving and sustaining excellence in schools through leadership actions built around the participation of diverse communities and cultures. Emphasis is on how leadership intersects with socio-historical and socio-cultural theories that suggest the organization of schools and instruction is critical to student inclusion and outcomes. The course is based on the basic premise that a socially-just learning theory begins with using all of the resources and knowledge of families, communities, and cultures in formulating policy and practice.

ADMN 5503 Mid-Management Internship: 3 semester hours.
Field-based and seminar experiences designed to provide on-site school-related activities, and the analysis of actual administrative situations and problems. Prerequisites: 18 semester hours of ADMN course work.
Prerequisites: (ADMN 5163 or CNSL 5163) and (ADMN 5093 or CNSL 5093) and CNSL 5153 and ADMN 5003 and ADMN 5023 and ADMN 5033 and ADMN 5043 and ADMN 5073 and ADMN 5083 and SUPV 5113 and ADMN 5013 and ADMN 5533 and ADMN 5053 and ADMN 5053 and ADMN 5103 and ADMN 5173.

ADMN 5513 Superintendency Internship: 3 semester hours.
Field-based and seminar experiences designed to provide on-site school-system related activities, and the analysis of actual administrative situations and problems.

ADMN 5533 Decision Making: 3 semester hours.
This course was designed for candidates of school administration, whether a practitioner or a graduate student preparing to enter school administration. A panoramic view of the complex field rather than an in depth analysis of each major dimension of administration will be presented through the use of decision-making models. Special emphasis will be placed on professional competencies in leadership, decision-making, planning and management techniques, the structure of public education, the administration hierarchy and team, and the operational problems in public schools. The social and political dimensions of the art of administration will be described. The learning experiences in this course will be derived from a survey of topics designed to stimulate and provide students insights into their affective and cognitive domains that are related to the field of education. Students should find these experiences as insightful mechanisms for the development of more effective learning.
ADMN 5993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Educational Leadership (EDUL)

Courses

EDUL 7003 Fundamental Components of Strategic Thinking: 3 semester hours.
Designed to help students understanding the process of strategic thinking, visioning and the establishment and achievement of organizational goals and objectives.

EDUL 7013 Strategic Thinking, Planning and Management: 3 semester hours.
Focuses on the process of strategic planning in educational leadership and how external environments and internal dynamics affect planning procedures.

EDUL 7023 Organizational Theory: 3 semester hours.
Focuses on organizational theories that shape educational institutions and provide educational leaders with the knowledge of theories as well as strategies to transfer theory into effective practice.

EDUL 7033 Leadership: 3 semester hours.
Designed to provide students with the history, development and understanding of scientific leadership and issues confronting modern and contemporary leadership through a review of research, literature, and the examination of great personalities in education, business, industry, philanthropy, government, environment and politics, including women and other minorities.

EDUL 7043 Organizational Development and Change in Education: 3 semester hours.
Explores global educational change from the perspectives of classical/rational organizational theory, open systems theory, contingency theory, and social systems theories. Educational leaders will understand the dynamics of educational change and the process to manage change.

EDUL 7053 Diversity in Educational Institutions: 3 semester hours.
Examines critical issues related to providing leadership for diverse student populations. Educational and Social Service leaders will understand what it means to be a culturally responsive and learn strategies to rectify current race, class, and gender inequities that exist throughout educational systems.

EDUL 7063 Philosophy of Leadership in Education: 3 semester hours.
Examines the philosophy of leadership in education and the art of effectively managing and influencing the behavior of others as an extension of who we are. This approach is driven by our beliefs about human nature resulting from our experiences and value systems.

EDUL 7071 Special Topics in Educational Leadership: 1 semester hour.
An examination of special topics related to educational leadership. This course may be repeated when topics vary.

EDUL 7072 Special Topics: 2 semester hours.
An examination of special topics related to educational leadership. This course may be repeated when topics vary.

EDUL 7073 Special Topics: 3 semester hours.
An examination of special topics related to educational leadership. This course may be repeated when topics vary.
Prerequisites: EDUL 7603.

EDUL 7083 Internship: 3 semester hours.
Field based experience designed to provide educational leaders with the opportunity to observe in varied social agencies.

EDUL 7093 Internship II Administrative Applications: 3 semester hours.
Field based experience designed to provide educational leaders with the opportunity to participate in actual administrative situations and problems in varied educational settings.

EDUL 7103 Educational Research and Evaluation: 3 semester hours.
Generation, analysis, and use of data and information relevant to decision making at the case, program, and policy levels. Students will learn and expand skill in the collection, analysis and use of data related to fundamental aspects of social service work practice, problem assessment and definition, intervention formulation, refinement and evaluation.

EDUL 7113 Technology in Education and Human Development: 3 semester hours.
Explores research and practice surrounding the use of computers in educational and training settings. Students will gain the practical knowledge needed to develop and evaluate computer-related curricula through projects and case studies.

EDUL 7123 Critical Issues in Distance Education: 3 semester hours.
Examines historical, conceptual, theoretical, and practical issues associate with distance education as related to educational systems design and school administration and policy.

EDUL 7133 Technology and Disabilities: 3 semester hours.
Technology as it impacts the lives of people with disabilities, including the performance of tasks related to employment, education and activities of daily living.

EDUL 7143 Educational Technology and Organizations: 3 semester hours.
Examines the role of technology in organizations, learning in the workplace and knowledge management in schools and universities.
EDUL 7153 Microcomputer Applications in Education: 3 semester hours.
Designed to study the operations and applications of microcomputers in educational settings. Emphasis is on analysis and applications in the educational environment.

EDUL 7163 Technology Integration and Curricular Applications: 3 semester hours.
Examines technology as a tool for communicating, teaching and learning. Explore technology as an essential learning experience, interface multimedia with teaching and learning, examine data and research collection, and apply technology to administration and academic improvement.

EDUL 7173 Data-Driven Decision Making: 3 semester hours.
Provides educational leaders with research and evaluation tools useful for the systematic collection and analysis of data in order to guide decisions to improve the performance of all students. Emphasis will be placed on curriculum and instruction data that can be analyzed to improve teaching and learning.

EDUL 7203 Organizational Behavior in Education: 3 semester hours.
Through the examination and application of theories of organizational behavior (i.e. motivation, power and influence, group dynamics, change, decision-making, etc.) in educational institutions, this course is designed to develop diagnostic and problem-solving skills necessary for successful leadership of educational organizations.

EDUL 7213 School Law and Policy: 3 semester hours.
An examination of legal principles and laws affecting the management and administration of educational institutions. Emphasis will be placed on federal and state laws, local system; current legal issues; and the interconnectedness of policy-making, laws, and policies.

EDUL 7223 Governance in P-20 Institutions: 3 semester hours.
Examines school governance and the current practices related to governance in education. Class participants will have the opportunity to create and or refine their understanding of governance with the exploration of current issues in the governance process.

EDUL 7233 School - Community Relations: 3 semester hours.
Explores the relationship between schools and the communities in which they are imbedded. Specific focus will be placed on, but not limited to, school board relations; site based decision-making, parental involvement, community politics, bond elections, and informing the public.

EDUL 7243 Educational Facilities Planning and Management: 3 semester hours.
An in-depth study of the planning and management of educational facilities will be examined in this course. Attention will be given to the programmatic needs, building design, maintenance of the school plant and accessing community growth patterns and needs.

EDUL 7253 Ethical Decision Making in Educational Leadership: 3 semester hours.
Provides students with the opportunity to apply the concepts of ethical decision making to the personal and professional aspects of educational leadership. The concepts of reasoning, problem solving, and critical thinking will be examined.

EDUL 7263 Critical Issues in Educational Leadership: 3 semester hours.
Examines the current and critical issues in educational leadership. Class participants will have the opportunity to develop strategies to address critical issues found in the educational arena.

EDUL 7273 Human Resource Mgmt: 3 semester hours.
A study of the principles of planning for human resource management in education. Employee recruitment, selection, evaluation, staff development, promotion and retention will be addressed.

EDUL 7283 School Curriculum Leadership: 3 semester hours.
Examines the role of educational leasership in designing and improving curriculum and instruction. The focus of this course is on identifying the leader's role in diagnosing and implementing relevant and effective curriculum at the classroom, school and district level.

EDUL 7293 Organization Theory and Development: 3 semester hours.
Examines historical evolution of administrative theory including classical, sociological and social-psychological dimensions, decision-making theory, implications of public interest theory for public management, basic concepts of organization development and impact on public administration paradigms, new urban administration, and future urban administration.

EDUL 7303 Public School Finance and Resource Allocation: 3 semester hours.
Explores all facets of the budgeting and resource allocation process. The administrative functions of planning, organizing, staffing, and evaluating will be stressed as it related to local, state, and federal fiscal requirements.

EDUL 7313 Economic Dimension of Education: 3 semester hours.
Examines the economic thinking as well as the theory and practice of funding public education. An in-depth study of the following topics will be addressed (sources and characteristics of school revenue, bond elections, equity, private funding sources).

EDUL 7323 Global Economy: 3 semester hours.
Examines the global economy and the adverse effect it has on the funding of public education. Topics addressed include: international financial markets, interest and inflation rates, foreign investments and consumer spending.

EDUL 7333 Grant Writing: 3 semester hours.
Examines the art of grantsmanship and the procedure to locate and submit grants to public and private funding sources.
EDUL 7403 School Law for Administrators: 3 semester hours.
Designed to identify essential legal issues and concepts found in the United States and Texas constitutions, statutes, regulations, and judicial decisions, emphasis is on student learning and mastering legal knowledge and applying the law in educational settings.

EDUL 7413 Special Education Law for Administrators: 3 semester hours.
Students learn the importance of special education law and policy found in the United States and Texas constitutions. Statutes, regulations, and judicial decisions, with emphasis on mastering vital knowledge and on applying the law in educational settings.

EDUL 7423 Legal Issues In Human Resource Administration: 3 semester hours.
The course is designed to acquaint the school leader with federal and state laws that impact on the personnel functions of schools.

EDUL 7503 Human Resources Administration in Education: 3 semester hours.
Survey and examination of roles, responsibilities, and functions of personnel officers in education, studies in general personnel policies; review of administration of insurance, salary, retirement, sick leave, and other programs under personnel administration.

EDUL 7513 Employee Selection, Retention and Appraisal in Human Resource Administration: 3 semester hours.
This course will identify the process of recruitment, selection, induction, and evaluation of teachers by school administrators.

EDUL 7523 Teacher Supervision, Evaluation and Professional Development: 3 semester hours.
Explores the knowledge base, standards, and theory base of staff development; activities that allow students to design a comprehensive staff development program in K-12 schools.

EDUL 7533 TQM in Schools: 3 semester hours.
Total Quality Management (TQM) is a management theory designed to promote team-building, customer-oriented leadership, and data-driven decision-making through the integration of traditional management theories.

EDUL 7603 Quantitative Research Design and Analysis: 3 semester hours.
Examines advanced competencies to conceptualize, design, execute, analyze, report, and publish quantitative research that delivers new and useful knowledge. Course content will balance research theory and computer-based tools with applications to real world problems.

EDUL 7613 Qualitative Research Design and Analysis: 3 semester hours.
An introductory course intended to provide a broad understanding of the foundations, purposes, and principles of qualitative research in education, as well as an introduction to a variety of qualitative research designs, data collection methods, and analysis strategies.

EDUL 7623 Advanced Research: 3 semester hours.
Designed to prepare students to: identify a researchable problem statement; develop a defensible doctoral research proposal; develop an understanding of the key elements of the research process (i.e., design methodology; population sampling; instrumentation)

EDUL 7633 Educational Statistics: 3 semester hours.
An explanation of quantitative designs including descriptive and inferential statistical procedures: to include multivariate and non-parametric techniques.

EDUL 7643 Action Research: 3 semester hours.
Examines main characteristics, methodological assumptions and models, and best practices of the discipline and scholarly processes of inquiry in educational institutions in order to improve educational practice.
Prerequisites: EDUL 7603.

EDUL 7703 Higher Education Administration: 3 semester hours.
Analysis of current practices and issues in the governance of higher education that affect students, faculty, and administration: study of the scope and role of college and universities.

EDUL 7713 Higher Education Finance and Management: 3 semester hours.
Examines how higher education institutions are financed. Emphasis will be placed on financing mechanisms from local, state and federal sources and how funding impacts higher education institutions.

EDUL 7723 The Role of Student Affairs in Higher Education: 3 semester hours.
Provides the graduate student with a comprehensive introduction to the field of college student personnel and it's role in American higher education. A related goal is to develop a broad foundation of knowledge to which subsequent study, practitioner skills and research strategies may be added.

EDUL 7733 Student Recruitment, Selection and Retention: 3 semester hours.
To equip students with the skills to identify, assess and create policies and best practices for improving the recruitment, selection and retention of students into tertiary institutions. The course will focus on research that addresses ways in which institutions can broaden opportunities for diverse populations.

EDUL 7743 Higher Education Policy and Analysis: 3 semester hours.
Examines how current higher education policies are made. Emphasis is placed on analysis of these policies and their impact on higher education access, particularly for diverse populations.

EDUL 7753 Assessing Higher Education Environments: 3 semester hours.
Focus on dimensions of human environments as tools for understanding the effects of educational environments on students. Special consideration will be given to various policies and applications of educational practices.
EDUL 7763 Institutional Effectiveness, Assessment and Accreditation: 3 semester hours.
The purpose of this course is to acquaint academic leaders with a comprehensive set of knowledge and skills for the effective assessment of college students' learning. The course will focus on different assessment strategies as they are applied in different contexts.

EDUL 7773 College Teaching Theories, Models and Strategies: 3 semester hours.
The purpose of this course is to explore theories and practices of teaching in a college setting. Emphasis will be placed on adult learning theories and on the ever-changing modes of teaching and learning.

EDUL 7993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

EDUL 8003 Dissertation: 3 semester hours.
Studies, program procedures, and dissertation issues. May be repeated.

EDUL 8006 EDUL Dissertation: 6 semester hours.
Studies, program procedures, and dissertation issues. May be repeated.

EDUL 8013 Dissertation Seminar: 3 semester hours.
This course will help students design and complete the dissertation including data collection, analysis, written report, and oral defense.

Electrical Engineering (ELEG)

Courses

ELEG 1011 Intro Engr Computer Sci & Tech: 1 semester hour.
Introduction to basic engineering, computer science and technology concepts. Students will become aware of the various disciplines of engineering, computer science and technology, ethical and professional responsibilities in these fields, creativity and design.

ELEG 1021 Introduction to Electrical and Computer Engineering Laboratory: 1 semester hour.
An introduction to the practice of electrical and computer engineering including identifying electronic components, operating electronic test and measurement instruments. Laboratory exercises include signal generators, passive components, and electronic circuits involving diodes, operational amplifiers and sensors.

ELEG 1043 Computer Applications in Engineering: 3 semester hours.
Fundamentals of C++ Programming language and MATLAB applications software. Logic of algorithms, flowcharts, program looping, conditional statements, arrays, functions and pointers. Engineering applications and team projects.
Prerequisites: MATH 1113 (may be taken concurrently) or MATH 1115 (may be taken concurrently) or MATH 1123 (may be taken concurrently) or MATH 1124 (may be taken concurrently) or MATH 2024 (may be taken concurrently).

ELEG 2011 Electric Circuits Laboratory: 1 semester hour.
Prerequisites: ELEG 2023 (may be taken concurrently).

ELEG 2023 Network Theory I: 3 semester hours.
Study of basic circuit laws and theorems. Study of basic circuit analysis techniques, use of controlled sources, and transient and sinusoidal circuit analysis.
Prerequisites: PHYS 2523 and MATH 2043 (may be taken concurrently).
Co-requisite: ELEG 2011.

ELEG 2053 Introduction to Electrical Engineering: 3 semester hours.
Introductory course for non-majors. Basic circuit theory, analysis of DC circuits; transient analysis of RLC circuits; steady state analysis; transformers; DC machines and induction motors; diode circuits; operational amplifiers; numbering systems, logic gates and combinational circuits.
Prerequisites: MATH 2043 (may be taken concurrently) and PHYS 2523.

ELEG 3013 Network Theory II: 3 semester hours.
Continuation of transient and sinusoidal analysis. Study of average and RMS power, poly-phase circuits, complex frequency, frequency response, and magnetic circuits.
Prerequisites: ELEG 2023.

ELEG 3021 Logic Circuits Laboratory: 1 semester hour.
Experimentation in combinational and sequential logic circuitry. Design of counters, adders, digital display circuitry, shift registers, and control logic.
Prerequisites: ELEG 3063 (may be taken concurrently).

ELEG 3023 Signals and Systems: 3 semester hours.
Basic discrete and continuous time signals, properties of systems, linear time invariant systems, Fourier analysis, z-transformers, LaPlace Transform.
Prerequisites: ELEG 3013.
ELEG 3033 Physical Principles of Solid State Devices: 3 semester hours.
Crystal structure, introduction to quantum concepts and discrete energy levels; atomic bonding, soli-state band theory, Fermi-Dirac statistics, charge carrier transport, and introduction to semiconductor device physics and operation.
Prerequisites: CHEM 1034 or CHEM 1043 and MATH 2043 and PHYS 2523.

ELEG 3041 Microelectronic Processing and Characterization Lab: 1 semester hour.
Basic processes of microelectronic fabrication; doping, oxidation, photolithography, etching, metallization and clean room practices. Basic materials and device characterization.
Prerequisites: ELEG 3033 and ELEG 2011.

ELEG 3043 Electronics I: 3 semester hours.
Prerequisites: ELEG 3033 (may be taken concurrently) and ELEG 3013.

ELEG 3063 Logic Circuits: 3 semester hours.
Number systems and codes. Boolean algebra and logic minimization methods. Combinational and sequential design using logic gates and flip flops. Computer-aided design tools for digital design, simulation, and testing.
Prerequisites: ELEG 3023.

ELEG 3071 Microprocessor Systems Design Laboratory: 1 semester hour.
Software and hardware experiments with a microprocessor system. Assembly language and C programming, simple input/output interfacing, and interrupt processing in microcomputer systems.
Prerequisites: ELEG 3063 and ELEG 1043 or COMP 1213 and ELEG 3073 (may be taken concurrently).

ELEG 3073 Microprocessor System Design: 3 semester hours.
Introduction to architecture, operation, and application of microprocessors; microprocessor programming; address decoding; system timing; parallel, serial, and analog I/O; interrupts and direct memory access; interfacing to static and dynamic RAM; microcontrollers. Introduction to Microcomputers.
Prerequisites: ELEG 3063 and ELEG 1043 or COMP 1213.
Co-requisite: ELEG 3071.

ELEG 3156 Engineering Internship I: 6 semester hours.
An internship program or work experience with an approved engineering firm or engineering oriented business agency, planning, public service agency, or consulting firm, providing an introduction to the profession.

ELEG 4001 Workplace Professionalism Skills for Engineering Graduates: 1 semester hour.
This course prepares students for a professional career in engineering upon graduation. Students learn the keys to survive in today's challenging, competitive, and uncertain workplace. The primary emphasis is on soft skills and expected workplace behaviors. Exercises and activities in this class help students immediately apply concepts and materials for transitioning from the classroom to the workplace.
Prerequisites: CHEG 2003.

ELEG 4003 Communication Theory: 3 semester hours.

ELEG 4011 Electronics Laboratory: 1 semester hour.
Applications of semiconductors diodes. Operational characteristics of transistor amplifiers (inverters, emitter follower, difference, etc.) FET characteristics and applications. Operational amplifier characteristics and circuit implementation. Frequency response of amplifiers.
Prerequisites: ELEG 2011 and ELEG 3043 (may be taken concurrently).

ELEG 4013 Electromechanical Energy Conversion: 3 semester hours.
Electric and magnetic devices, force and torque measurements, iron core transformers, single phase and poly-phase power circuit analysis. Introduction to per unit system.
Prerequisites: ELEG 3013 and MATH 4173.

ELEG 4021 Power Laboratory: 1 semester hour.
Operational characteristics of DC and AC machines; Transformers; power circuit analysis, DC to DC converters, Inverters; DSP-Based Electric Drive Systems.
Prerequisites: ELEG 4013 (may be taken concurrently).

ELEG 4023 Power Systems Engineering: 3 semester hours.
Elementary synchronous machines. General considerations of power generation, transmission, distribution and utilization, survey of load flow, faults, transient stability and economic power dispatch.
Prerequisites: ELEG 4013.

ELEG 4031 Communications Lab: 1 semester hour.
Laboratory practice of communications theory, AM and FM modulation, transmission and reception. Analysis of signals and effect of noise interference on communications.
Prerequisites: ELEG 4003 (may be taken concurrently).
ELEG 4033 Electromagnetic Field Theory I: 3 semester hours.
Review of relevant mathematics, electricity, and magnetism. Study of dielectrics, Poisson's and LaPlace's equations, magnetic flux, magnetic fields, and magnetic boundary conditions, Ampere's Circuital law, time varying fields and Maxwell's equations.
Prerequisites: ELEG 2023 and MATH 4173.

ELEG 4043 Electronics II: 3 semester hours.
Design and analysis of single and multistage transistor amplifiers, difference amplifiers, frequency response of amplifiers. Feedback concepts. Analysis and design using discrete and integrated devices.
Prerequisites: ELEG 3043.

ELEG 4053 Digital Signal Processing: 3 semester hours.
Introduction, review of signals and systems, sampling and z-transforms, discrete Fourier transform, fast Fourier transform, non-recursive filter design, recursive filter design. Use of Mat lab and DSP's in signal analysis.
Prerequisites: ELEG 3023.

ELEG 4073 Servomechanism and Control Systems: 3 semester hours.
Model of physical systems, system responses, system characteristics, stability design, frequency response analysis and design, discrete -time systems.
Prerequisites: ELEG 3023 and MATH 4173.

ELEG 4103 Special Topics: 3 semester hours.
Selected current and emerging topics in Electrical Engineering. Courses may be repeated for credit when topics vary.

ELEG 4151 Digital Signal Processing: 1 semester hour.
Prerequisites: ELEG 4053 (may be taken concurrently) or ELEG 4163 (may be taken concurrently).

ELEG 4156 Engineering Internship II: 6 semester hours.
An internship program or work experience with an approved engineering firm or engineering oriented business agency, planning agency, public service agency, or consulting firm which provides an introduction to the profession.

ELEG 4163 Digital Signal Processing: 3 semester hours.
Fundamental techniques of Digital Signal Processing design, algorithm development, system simulation, real-time prototype of DSP systems. Fundamental techniques of DSP testing, DSP software, hardware and different DSP applications.
Prerequisites: ELEG 4053 (may be taken concurrently).

ELEG 4223 Electronic and Photonic Materials and Devices: 3 semester hours.
Properties of insulators, conductors, semiconductors, electro-optical and magnetic materials. Basic operation of opto-electronic devices and systems.
Prerequisites: ELEG 3033.

ELEG 4243 Power Electronics: 3 semester hours.
Characteristics of solid state power switches, controlled rectifiers and inverters; DC choppers; AC power controllers; applications to power supplies, electric machine drives, HVDC power transmission and space power systems.
Prerequisites: ELEG 3043 and ELEG 4013 (may be taken concurrently).

ELEG 4253 Computer Interfacing and Communications: 3 semester hours.
Microcontroller and microcomputer structures and applications; programming and design of hardware interfaces; emphasis on student projects.
Prerequisites: ELEG 3071 and ELEG 3073.

ELEG 4263 VLSI Circuit Design: 3 semester hours.
Analysis and design of monolithic integrated circuits, device modeling; CAD tools and computer-aided design, design methodologies of VLSI circuits.
Prerequisites: ELEG 3043 and ELEG 3063 and ELEG 4043 (may be taken concurrently).

ELEG 4273 Analog and Mixed Signal Techniques I: 3 semester hours.
Overview of analog and digital logic circuits, mixed signal circuits and systems, mixed signal test specification process, DC and parametric measurements, tester hardware, DSP-based testing, simulation and design techniques, power management circuits and systems.
Prerequisites: ELEG 3043 and ELEG 3063 and ELEG 4003 (may be taken concurrently).

ELEG 4283 Reliability Analysis of Electrical Facilities: 3 semester hours.
Overview of reliability and probabilistic theory, Monte Carlo simulations, preventive and predictive maintenance methodology, computerized maintenance management systems, generation, transmission and distribution networks and loads, field study and power deregulation.
Prerequisites: ELEG 4013 and MATH 3023.

ELEG 4291 Mixed Signal Testing Techniques Lab: 1 semester hour.
Mixed signal Measurements, Mixed signal Parameters Measurements, Signal sourcing Techniques, Signal capturing Techniques, Frequency Domain Measurements, DSP based testing, DAC testing, ADC testing, Template test and Analog Circuit Review.
Co-requisite: ELEG 4273.
ELEG 4293 Analog and Mixed Signal Techniques II: 3 semester hours.
Sampled channel testing. Focused calibrations, DAC testing, ADC testing, DIB design. Design for test (DFT), Data Analysis and Test Economics. Current issues relating to Mixed Signal Systems. 
Prerequisites: ELEG 4273.

ELEG 4303 Introduction to Digital Design: 3 semester hours.
Prerequisites: ELEG 3063 and ELEG 3073.

ELEG 4311 Advanced Logic Design Laboratory: 1 semester hour.
Design and laboratory implementation of digital systems using standard, integrated circuits. 
Prerequisites: ELEG 4353 (may be taken concurrently).

ELEG 4313 Broadband Communication Systems I: 3 semester hours.
Introduction to types of high-speed communication system (broadband), telephone subscriber loop environment, twisted-pair channel modeling, transceiver front-end noise models. Channel capacity testing and analysis techniques of XDSL systems. XDSL modulation techniques and deployment considerations. 
Prerequisites: ELEG 4323.

ELEG 4321 Computer Network Laboratory: 1 semester hour.
Use of Linux. Shell and socket programming. Client and server operations, Wireshark software for performance monitoring, management and traffic parameters estimation, wireless local area network Address resolution protocol and troubleshooting. Internet protocols, routing, and fragmentation. 
Prerequisites: ELEG 4333 (may be taken concurrently).

ELEG 4323 Broadband Communication Systems II: 3 semester hours.
Topics include Hybrid Circuits, Analog Front end precision issues, channel equalization, Echo cancellation, Error Correction and Trellis Coding. Varieties of Digital Subscriber Line (XDSL), testing issues relating to XDSLs. Standards and standard related issues with emphasis on Asymmetric Digital Subscriber Line. 
Prerequisites: ELEG 4313.

ELEG 4333 Communication Network Engineering: 3 semester hours.
Multi-service applications: Voice/IP, Video on-demand and Video Conferencing. Physical layer design issues including the modulation, demodulation, synchronization, bandwidth, SNR, and interfaces. Link layer design including medium access control, error detection and retransmission strategies. Network routing strategies and transport layer functionality. Design of wired and wireless Local Area Networks based on IEEE 802.x standards. Design of INTERNET Architectures configured with network routing, and the use of network components such as routers, switches and hubs. 
Prerequisites: ELEG 4303.

ELEG 4343 Microcontroller Applications: 3 semester hours.
Use and application of single chip microcontrollers in the design of instrumentation and control systems. 
Prerequisites: ELEG 3043 and ELEG 4303.

ELEG 4353 Advanced Logic Design: 3 semester hours.
Introduction to the design, modeling and verification of complex digital system, modern design, methodologies for logic design, development of tools for the design and testing of digital systems. 
Prerequisites: ELEG 3073. 
Co-requisite: ELEG 4311.

ELEG 4363 Introduction to High Performance Computing: 3 semester hours.
The course will introduce high performance computing hardware architecture, software tools, and applications. 
Prerequisites: ELEG 3073.

ELEG 4393 Computer Organization and Design: 3 semester hours.
An introduction to computer organization using assembly and machine language. Number representation, computer arithmetic, instruction sets, I/O interrupts, and programming interrupts. Projects involve detailed study and use of a specific computer hardware and software system. 
Prerequisites: ELEG 3063.

ELEG 4472 Senior Design and Professionalism I: 2 semester hours.
This is the first course of a two-semester capstone experience (ELEG 4482 must immediately follow ELEG 4472 or sequence must restart with 4472) involving engineering design of an industrial or advanced team project. Elements of ethics and professionalism in engineering practice are integrated into the project experience. The project will include application of relevant engineering codes and standards, as well as realistic constraints. Design achievements are demonstrated with written reports, and oral presentation, and professional standards and ethics examinations. 
Prerequisites: CHEG 2003 and ELEG 3063 and ELEG 3043.
ELEG 4482 Senior Design and Professionalism II: 2 semester hours.
A continuation of ELEG 4472 with required design modifications of the team projects necessary to produce a working prototype of the designs initiated in Senior Design and Professionalism I. Results of the design are presented in a Design project deliverables including an oral presentation, a written report, and a formal, final oral presentation, as well as a final report. Professionalism education with demonstration of prototype, or a model of the design. Elements of professionalism reinforce the importance of professional engineering ethics, corporate culture, life-long learning, and globalization. Prerequisites: ELEG 4472.

ELEG 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics.

ELEG 5913 Engineering Project: 3 semester hours.
An engineering design and analysis investigation at the master's level. Topic to be decided between student and advisor and should be relevant to students specialty area. A written project report is required to be presented, defended orally and submitted to the faculty advisory committee for approval.

ELEG 5963 Electrical Engineering Research: 3 semester hours.
Methods and practice of Electrical Engineering research performed under the supervision of graduate advisor.

ELEG 5966 Research: 6 semester hours.
Engineering research under the supervision of graduate advisor.

ELEG 5993 Independent Study: 3 semester hours.
Reading, research, and/or field work on selected topics.

ELEG 5996 Thesis: 6 semester hours.
A candidate for the Master of Science in Electrical Engineering is required to perform a study, a design of investigation, under the direction of a faculty advisory committee. A written thesis is required to be presented, defended orally and submitted to the faculty advisory committee for approval.

ELEG 6011 Graduate Seminar I: 1 semester hour.
Seminar on emerging areas of electrical engineering. Research presentations by faculty, students and invited guests.

ELEG 6021 Graduate Seminar II: 1 semester hour.
Continuation of ELEG 6011.

ELEG 6103 Advanced Computer Systems Design: 3 semester hours.
Digital Design Methodologies, System Design CAD tools, Hardware Description Language, Simulation, Verification and Synthesis. Prerequisites: ELEG 4303.

ELEG 6113 Computer Architecture & Advanced Logic Design: 3 semester hours.
Overview of switching theory, logic design, combinatorial and sequential circuits, and FSMs. Computer architecture: organization and design with CPU, Memory, cache, VO, OS, DMA, MMU, operations of interrupt and. DMA, and performance analysis. Special architectures: Parallel architectures, microprogramming, RISC, and ASIC design overview. Prerequisites: ELEG 4303.

ELEG 6123 The Internet: Design and Implementation: 3 semester hours.
Overview of ISO Reference Model. Homogeneous, heterogeneous and ad-hoc network architectures. Reference Model of end-to-end networking: access networks, enterprise networks and core networks, internetworking issues and protocol architecture. Internet network elements and protocols including routers, switches, diffServe, MPLS, and VPN. Internet applications and Quality of Service issues. Prerequisites: ELEG 4003 and ELEG 4303.

ELEG 6133 Fault Tolerant Computing: 3 semester hours.
Key concepts in fault-tolerant computing. Understanding and use of modern fault-tolerant hardware and software design practices. Case studies. Prerequisites: ELEG 4393.

ELEG 6143 Modeling and Performance of Computer Architectures: 3 semester hours.
Computer architecture overview, modeling and interconnecting hardware components. Qualitative and quantitative performance analysis and cost effectiveness for different computer design trade-offs. Advanced Processor designs including superscalar and out-of-order execution, advanced memory systems such as non-blocking caches and multi-porting/banking and alternative virtual memory implementations. Analysis of VO systems, interconnects, introduction to multiprocessor architectures, performance and cost metrics, and benchmarking. Prerequisites: ELEG 6113.

ELEG 6153 Information Networks: 3 semester hours.
ELEG 6163 Statistical Learning for Big Data: 3 semester hours.
This course focuses on principles and best practices of machine learning from a probabilistic perspective with a strong tilt towards applications in big data analytics. It will cover various aspects of statistical learning theory, theory of generalization, overfitting and regularization, validation and cross-validation. It will also cover linear classifiers, linear regression, logistic regression and nonlinear transformations, neural networks and support vector machines.

ELEG 6183 Deep Learning: 3 semester hours.
This course focuses on the underlying theory, the range of applications to which deep learning has been applied, and learning from very large data sets. Topics include deep feed-forward networks, optimization for training deep models, convolutional and recurrent neural networks, structured probabilistics models, autoencoders, and Monte Carlo methods. The course will also train students to use open-source software such as TensorFlow to gain hands-on experiences.

ELEG 6203 Wireless Networks: 3 semester hours.
Prerequisites: ELEG 4003.

ELEG 6213 Digital Communications: 3 semester hours.
Prerequisites: ELEG 4003 and ELEG 6313.

ELEG 6223 Coding Theory: 3 semester hours.
Prerequisites: ELEG 4003 and ELEG 6313.

ELEG 6233 Advanced Broadband Communications Systems: 3 semester hours.
Prerequisites: ELEG 4313.

ELEG 6253 Telecommunications Network Security: 3 semester hours.
Overview of cryptography. Public and private key encryption. Privacy, authentication, authorization and digital signatures, and Hash algorithms. Design of network security using private key encryption (DES) and public key encryption (RSA). Concept of electronic codebook and knowledge proof systems. Intrusion detection and active prevention and firewalls. Scrambling techniques for non-data signals such as voice and video. Security management design for networks.
Prerequisites: ELEG 6313.

ELEG 6303 Signal Detection and Estimation: 3 semester hours.
Statistical detection theory; signal and parameter estimation theory; likelihood-ratio decision rules; Bayesian probability, maximum-likelihood, maximum-a-posterior, Neyman-Pearson, and minimum-error criteria; Cramer-Rao Bound; unbiased estimators; Kalman and Wiener filters, estimators; simple and composite hypothesis testing, optimum linear filtering, smoothing and prediction, nonlinear estimation.
Prerequisites: ELEG 6313.

ELEG 6313 Stochastic Processes: 3 semester hours.
Prerequisites: MATH 3023.
ELEG 6323 DSP Systems Design: 3 semester hours.
Overview of Digital filter structures and digital filter design. Digital Processing Architectures: Microprocessors, Programmable arrays, ASICs; design considerations and algorithmic implementations. Interface considerations and interoperability issues for hardware system. Embedded systems designs for DSP applications. Design and implementation of DSP algorithms and Performance considerations.
Prerequisites: ELEG 4053.

ELEG 6333 Wavelets and Their Applications: 3 semester hours.
Prerequisites: ELEG 4003 and ELEG 4053.

ELEG 6343 Advanced Signals and Systems: 3 semester hours.
Prerequisites: ELEG 3023 and ELEG 6313.

ELEG 6353 Advanced Digital Signal Processing: 3 semester hours.
Prerequisites: ELEG 4053.

ELEG 6403 Solid State Devices: 3 semester hours.
Development and analysis of solid state physics needed for quantitative modeling of electronic materials and solid state electronic devices and their characteristics; relationship of basic principles to measurable electrical characteristics, structure and material properties of electronic devices.
Prerequisites: ELEG 3033.

ELEG 6413 Integrated Circuit Fabrication: 3 semester hours.
Basic Integrated Circuit fabrication processes: crystal growth (thin film and bulk), thermal oxidation, dopant diffusion/implantation, thin film deposition/etching and lithography. Introduction to process and device simulators such as SUPREM and PISCES. Fabrication and characterization of resistors, MOS capacitors, junction diodes an MOSFET devices.
Prerequisites: ELEG 3033 and ELEG 4043.

ELEG 6423 VLSI and ULSI Design: 3 semester hours.
MOS transistor and characteristics, CMOS inverter and transmission gates. Design of complex CMOS gates; combinational and sequential design techniques in VLSI and ULSI; issues in static transmission gate and dynamic logic design; CMOS technology and layout design rules. Use of CAD tools to layout, check and simulate circuits. Design, layout and simulation of a small project.
Prerequisites: ELEG 3033 and ELEG 4303 and ELEG 4043.

ELEG 6433 Semiconductor Devices: 3 semester hours.
Operation and modeling of basic bipolar and unipolar semiconductor devices including p-n junctions, Schotky diodes, BJT, MOSFET and HEMTs; properties of semiconductor interfaces, particularly of MOS and MIS structures.
Prerequisites: ELEG 6403.

ELEG 6503 Advanced Photonics Materials and Devices: 3 semester hours.
Optical properties and processes in elemental and compound semiconductors; junction theory of homo- and hetero-junctions; theory and operation of various opto-electronic devices including light emitting diodes, laser diodes, photo detectors and solar cells; Opto-electronic modulation and switching; light transmission and integrated applications.
Prerequisites: ELEG 6403 and ELEG 6433.

ELEG 6513 Advanced Quantum Devices: 3 semester hours.
Selected topics in advanced concepts in quantum theory of semiconductors including transport theory; qualitative description of superconductivity and related devices, description and analysis of quantum and Nano-scale devices such as RTDs, Nano-tube transistors, SETs and molecular electronics, description of device fabrication techniques such as epitaxial growth, characterization of hetero-structures, quantum wells and super lattices including strained layers.
Prerequisites: ELEG 6403 and ELEG 6433.

ELEG 6523 Advanced Characterization of Materials and Devices: 3 semester hours.
The theory and application of state-of-the-art characterization techniques on advanced materials and devices; experimental techniques that describe the electronic, structural and thermal properties of materials. Emphasis will be placed on materials and devices that are current areas of research and development.
Prerequisites: ELEG 6403 and ELEG 6433.
ELEG 6533 Advanced VLSI Design: 3 semester hours.
Advanced topics in VLSI Design. Topics include: use of high level design, synthesis and simulation tools, design for testability, clock distribution and routing problems, synchronous circuits, low power design techniques, study of various VLSI-based computations. Discussion on current research topics in VLSI design. Prerequisites: ELEG 6423.

ELEG 6543 Advanced Solid State: 3 semester hours.
This course will be a survey of selected topics in areas of solid state devices that are in the research and development stage. Topics will include new material systems, new methods for fabrication and processing microelectronics, new device structures and architectures for integrated circuits, new methods for large-scale integration of the next generation devices. Prerequisites: ELEG 6403 and ELEG 6433.

ELEG 6553 Advanced Mixed Signal Design: 3 semester hours.
Advanced study of Analog signal processing families, discrete time switched capacitor circuits, NO and DI A converters, samples, modulators, oscillators, and system level circuit design. In-depth theoretical treatment of mixed signal system design and testing systems for achievable mixed signal system performance. Exploration of current techniques for Mixed Signal system testing. Prerequisites: ELEG 4043 and ELEG 4273.

ELEG 6713 Power System Faults Protective: 3 semester hours.
Calculation of power system currents and voltages during faults; protective relaying principles, application and response to system faults. Characteristics of protection components. Prerequisite: approval of instructor. This course is repeatable up to 6 semester hours.

ELEG 6723 Power System Stability: 3 semester hours.
Modeling of the transmission system, loads, generators, excites, and governors; prefault and postfault conditions; effect of system protection schemes on stability computational aspects of load-flow solutions; system security considerations. Writing programs for state-by-state analysis and Monte Carlo power system analysis. Steady-state, dynamic and transient stability of power systems; solution techniques; effect of generator control systems.

ELEG 6733 High Voltage Direct Current: 3 semester hours.
Overview of HVDC systems; comparisons of AC and DC power transmission; study of six-pulse and twelve-pulse power converters; analysis and control of HVDC systems; harmonics and power factor effects; systems faults and mis-operations; state of the art and future developments in HVDC technology; inspection trips.

ELEG 6743 Power Gen Oper Control: 3 semester hours.

ELEG 6753 Advanced Power System: 3 semester hours.
Economic Dispatch. Solving sets of equations that involve large sparse matrices. Sparse matrix storage, ordering schemes, application to power flow analysis, short circuit calculation, power system planning and operation.

ELEG 6763 Power Electronics Power System: 3 semester hours.

ELEG 6773 Advanced Electric Drives: 3 semester hours.

ELEG 6783 Advanced Power Electronics: 3 semester hours.
Physics of solid-state power devices, passive components, magnetic optimization, advanced topologies. Unity power factor correction circuits, EMI issues, snubbers, soft switching in dc/ac converters. Very low voltage output converters. Integrated computer simulations.

ELEG 6913 Special Topics in Elec Engr: 3 semester hours.
Special topics in electrical engineering relating to the electrical energy, digital systems, communications, signal processing, and nanoelectronics are selected and discussed in detail. May be repeated for credit if topics vary.

ELEG 7016 Doctoral Research I: 6 semester hours.
Research for thesis or dissertation. Limited to doctoral students. May be repeated for credit.

ELEG 7026 Doctoral Research II: 6 semester hours.
Continuation of ELEG 7016. Limited to doctoral students. May be repeated for credit.

ELEG 7103 Advanced Topics in Computer Engineering: 3 semester hours.
Current research issues in computer architecture, digital design, networked-computing, embedded and real-time systems. May be repeated for credit when the topics vary.

ELEG 7123 Advanced Topics in Telecommunications and Signal Processing: 3 semester hours.
Current research issues in telecommunications and digital signal processing. May be repeated for credit when the topics vary.

ELEG 7133 Advanced Topics in Microelectronics: 3 semester hours.
Current research issues in the design, fabrication, characterization and reliability of integrated circuits. May be repeated for credit when the topics vary.
**ELEG 7916 Doctoral Dissertation I: 6 semester hours.**
The continuation of ELEG 7016 and ELEG 7026 for writing thesis. Limited to students who have been admitted to candidacy for the doctoral degree. May be repeated for credit.

**ELEG 7926 Doctoral Dissertation II: 6 semester hours.**
Continuation of ELEG 7916. Limited to students who have been admitted to candidacy for the doctoral degree. May be repeated for credit.

### Electrical Engineering Tech (ELET)

#### Courses

**ELET 1011 Intro Engr Cs Tech: 1 semester hour.**
Introduction to basic engineering, computer science and technology concepts. Students will become aware of the various disciplines of engineering, computer science and technology, ethical responsibilities in these fields, creativity and design.
Co-requisite: ELET 1021.

**ELET 1021 Intro ELET Lab: 1 semester hour.**
Introduction to the field of engineering technology, the curriculum, the basic skills of problem solving, and hands-on experiments, the basic concepts and applications on computer technology.
Co-requisite: ELET 1011.

**ELET 1121 DC/AC Circuits Laboratory: 1 semester hour.**
The Applications of Ohm’s Law, Kirchhoff’s Law, and related theories to the principle of DC and magnetism in conductors and insulators. Prerequisite: credit for or concurrent enrollment in AC circuits, impedance and phasor experiments.
Prerequisites: MATH 1113 or MATH 1115.
Co-requisite: ELET 1123.

**ELET 1123 DC/AC Circuits: 3 semester hours.**
Basic principles of electricity, magnetism, conductors, insulators, electric theory, Ohm’s Law, Kirchhoff’s Laws, characteristics. Study of DC and AC circuits, series and parallel DC circuits, and basic instruments used in electronics.
Prerequisites: MATH 1115.
Co-requisite: ELET 1121.

**ELET 2006 Cooperative Education I: 6 semester hours.**
A cooperative arrangement between the university and a company or government agency that provides experiences for students majoring in Electrical Engineering Technology. The work assignment must be commensurate with the student’s major. A subsequent written report is required.

**ELET 2221 Basic Electronics I Laboratory: 1 semester hour.**
The implementation of semiconductors in electronic circuits and the analysis of basic amplifiers.
Prerequisites: (MATH 1113 or MATH 1115) and ELET 1121 and ELET 1123 and ELET 2223 (may be taken concurrently).

**ELET 2223 Basic Electronics I: 3 semester hours.**
Principles of elementary electronics circuit design and analysis. Solid state diodes, bipolar and MOSFET transistors, biasing techniques DC and AC load lines. Analysis of basic amplifiers.
Prerequisites: (MATH 1113 or MATH 1115) and ELET 1121 and ELET 1123 and ELET 2221 (may be taken concurrently).

**ELET 2341 Circuits Analysis Laboratory: 1 semester hour.**
Laboratory experiments in circuit analysis, controlled sources, transient and sinusoidal solutions.
Prerequisites: ELET 1121 and ELET 1123 and MATH 1124.
Co-requisite: ELET 2343.

**ELET 2343 Circuit Analysis: 3 semester hours.**
Study of circuit analysis techniques, transient and sinusoidal responses. Applications of transform methods for circuit analysis.
Prerequisites: ELET 1121 and ELET 1123 and MATH 1124.
Co-requisite: ELET 2341.

**ELET 3003 Antennas and Transmission Systems: 3 semester hours.**
Topics that will be covered are VSWR, application of Smith charts, characteristic of antennas, characteristic of transmission lines, fiber optics used in data transmission, characteristic impedance of transmission lines, antenna gain calculations, antenna patterns, antenna grounding, microwave antenna considerations, and field strength measurement.
Prerequisites: MATH 2024 and ELET 2221 and ELET 2223.

**ELET 3023 Computer Applications to Electrical Problems: 3 semester hours.**
The development of orderly methods of solving current voltage relations problems, circuit law problems, and electronics problems with the use of the computer.
Prerequisites: CPET 1023.
ELET 3151 Electronics II Laboratory: 1 semester hour.
Implementation and measures on field effect transistors as amplifiers, filters, oscillators and voltage regulators.
Prerequisites: ELET 2221 and ELET 2223 and PHYS 2123 and ELET 3153 (may be taken concurrently).

ELET 3153 Electronics II: 3 semester hours.
Theory, operation and applications of different types of field effect transistors. Active filters, oscillators, and transient solutions, regulators.
Prerequisites: ELET 2221 and ELET 2223 and PHYS 2123 and ELET 3151 (may be taken concurrently).

ELET 3333 Electrical Engineering Technology Cooperative Education: 3 semester hours.
A cooperative arrangement between the university and a company or government agency that provides experiences for students majoring in Electrical Engineering Technology. The work assignment must be commensurate with the student's major. A subsequent report is required.

ELET 3451 Robotics I Laboratory: 1 semester hour.
Experiments with and testing of robotic devices, including sensors, motion systems, electronics components, and control.
Prerequisites: ELET 2221 and ELET 2223 and ELET 3453 (may be taken concurrently).

ELET 3453 Robotics I: 3 semester hours.
Applications of robotic devices, including sensors, motions systems, electronic components, and control systems. Basic programming of robots.
Prerequisites: ELET 2221 and ELET 2223 and ELET 3451 (may be taken concurrently).

ELET 3521 instrumentation, Robotics and Controls Lab: 1 semester hour.
The theory and applications of electronic application of electronic measuring instruments and input/output transducers. Topics include analog and digital instruments and transducers. Theory and applications of robotic devices and control systems.
Prerequisites: ELET 2221 and ELET 2223 and PHYS 2123 and ELET 3523 (may be taken concurrently).

ELET 3523 Instrumentation, Robotics and Controls: 3 semester hours.
The theory and applications of electronic application of electronic measuring instruments and input/output transducers. Topics include analog and digital instruments and transducers. Theory and applications of robotic devices and control systems.
Prerequisites: ELET 2221 and ELET 2223 and PHYS 2123 and ELET 3521 (may be taken concurrently).

ELET 3603 Digital Integrated Circuits Devices and Applications: 3 semester hours.
A treatise of LSI and VLSI devices to include memories, interfacing, data transfer, and arithmetic logic units. The application and programming of Motorola's 68000 and Intel's 80286 microprocessors will be covered.

ELET 3701 Communication Circuits I Laboratory: 1 semester hour.
Laboratory experiments in the areas of RF circuits including impedance matching, RF power amplifiers, wideband amplifiers, RF oscillators, and phase shift oscillators.
Prerequisites: ELET 2221 and ELET 2223 and ELET 3703 (may be taken concurrently).

ELET 3703 Communication Circuits I: 3 semester hours.
RF circuits including impedance matching, RF power amplifiers, wideband amplifiers RF oscillators, phase shift oscillators, AM, FM, and PM circuits.
Prerequisites: ELET 2221 and ELET 2223 and ELET 3701 (may be taken concurrently).

ELET 3911 Mixed Signals I Lab: 1 semester hour.
Familiarization of mixed signal test equipment and software. Remote controlled equipment using Lab VIEW. Testing of analog and mixed signal devices such as diodes, transistors, op-amps, and comparators.
Prerequisites: ELET 2221 and ELET 2223 and ELET 3913 (may be taken concurrently).

ELET 3913 Mixed Signals I: 3 semester hours.
Overview of mixed signal testing. Test specification process, tester hardware, DC and parametric measurements, measurement accuracy, and sampling theory.
Prerequisites: ELET 2221 and ELET 2223 and ELET 3911 (may be taken concurrently).

ELET 4082 Senior Project I: 2 semester hours.
A two-semester sequence for individual projects supervised by a faculty member of the department. The portions of the first semester course (4082) are devoted to group discussion of professional aspects of engineering ethics, research protocols, and patent considerations. A written proposal describing the project is required. Oral presentation throughout the semester on the research project using a conference style format.

ELET 4092 Senior Project II: 2 semester hours.
A two-semester sequence for individual and/or team projects supervised by a faculty member of the department. The portions of the second semester course (4092) are devoted to group discussion of professional aspects of engineering technology: research writing, engineering ethics, research protocols, patent considerations. Oral presentations throughout the semester culminating in a final written report.
Prerequisites: ELET 4082.

ELET 4101 Special Topics Lab: 1 semester hour.
Laboratory experiments in selected current and emerging topics in Electrical Engineering Technology.

ELET 4102 Special Topics: 2 semester hours.
Selected current and emerging topics in Electrical Engineering Technology.

ELET 4103 Special Topics: 3 semester hours.
Selected current and emerging topics in Electrical Engineering Technology.
ELET 4241 Operational Amplifier Theory and Applications Laboratory: 1 semester hour.
The application of designing and evaluating differential and operational amplifier circuitry, feedback configurations, linear and nonlinear circuitry.
Prerequisites: ELET 2221 (may be taken concurrently) and ELET 2223 (may be taken concurrently) and MATH 2024 (may be taken concurrently) and ELET 4243 (may be taken concurrently).

ELET 4243 Operational Amplifier Theory and Applications: 3 semester hours.
The design and evaluation of differential and operational amplifier circuitry, feedback configurations, operational amplifiers, errors compensation, linear and nonlinear circuitry.
Prerequisites: ELET 2221 (may be taken concurrently) and ELET 2223 (may be taken concurrently) and MATH 2024 (may be taken concurrently) and ELET 4241 (may be taken concurrently).

ELET 4471 Control Systems Laboratory: 1 semester hour.
The laboratory testing of automated controlled circuitry designed and developed with electrical engineering techniques. Automated controlled circuits designed with digital filter circuits will be tested.
Prerequisites: ELET 2341 and ELET 2343 and ELET 4473 (may be taken concurrently).

ELET 4473 Control Systems: 3 semester hours.
The application of control and automated systems to computers. The analysis and design of transducers and signal converters for process control. The development of electrical circuitry to be used in computer programming.
Prerequisites: ELET 2341 and ELET 2343 and ELET 4471 (may be taken concurrently).

ELET 4513 Advanced Integrated Circuits: 3 semester hours.
Fabrication of LSI and VSLI devices. Design considerations of PROM, EPROM, EEPROM devices and LIFO, FIFO memories. Students will be required to write computer programs that will perform typical dynamic testing of integrated circuits.
Prerequisites: ELET 2221 and ELET 2223.

ELET 4621 Mixed Signals II Lab: 1 semester hour.
Testing of ADC and DAC. Gain and offset measurements, DC and linearity testing, FFT and its effect of aliasing. ATE projects.
Prerequisites: ELET 3911 and ELET 3913.
Co-requisite: ELET 4623.

ELET 4623 Mixed Signals II: 3 semester hours.
Sampling theory, DSP based mixed signal testing, analog channel measurements, DAC/ADC testing, focused calibrations, DIB design, data analysis and test economics.
Prerequisites: ELET 3911 and ELET 3913.
Co-requisite: ELET 4621.

ELET 4801 Communications Circuits II Laboratory: 1 semester hour.
Laboratory experiments in the areas of analog and digital data communication techniques.
Prerequisites: ELET 2221 and ELET 2223 and ELET 4803 (may be taken concurrently).

ELET 4803 Communication Circuits II: 3 semester hours.
Analog and Digital Data communications techniques including PPM, PWM, FSK, DM, PAM, and PCM. Data Modem, digital coding/decoding, Interfacing and Codec circuits.
Prerequisites: ELET 2221 and ELET 2223 and ELET 4801 (may be taken concurrently).

ELET 4993 Independent Study: 1-3 semester hour.
Reading, research, and/or laboratory work on selected topics in Electrical Engineering Technology.

Elementary Education (ELED)

English (ENGL)

Courses

ENGL 1123 Freshman Composition I: 3 semester hours.
A writing course focused on composing strong arguments through critical thinking and analysis of primary and secondary source material. The course emphasizes rhetorical awareness in writing essays for a variety of audiences and purposes. Students will actively participate in peer workshops and demonstrate awareness of general research methods and ethics.

ENGL 1133 Freshman Composition II: 3 semester hours.
A writing course that emphasizes rhetorical analysis and critical thinking, advanced research and documentation, and writing extended arguments for academic audiences. Students will actively participate in peer workshops and demonstrate an awareness of academic research methods and ethics.
Prerequisites: ENGL 1123.
ENGL 1143 Technical Writing: 3 semester hours.
Application of principles of composition and rhetoric to genres of scientific and technical writing including proposals, formal reports, presentations, business and scientific correspondence, manuals, technical articles and reports. Students will undertake a full-scale project through proposal and research with formal oral and written presentations of a documented technical project from the student's major field of study.
Prerequisites: ENGL 1123.

ENGL 2143 Advanced Composition: 3 semester hours.
Study and practice of advanced academic reading and writing through cultural studies, research projects, and critical, rhetorical, and literary analysis
Prerequisites: ENGL 1133.

ENGL 2153 Introduction to Literature: 3 semester hours.
Introductory study of the form, structure, and content of literary genres; interpretation and analytical thinking and intensive writing about literature.
Prerequisites: ENGL 1123.

ENGL 2253 Adolescent Literature: 3 semester hours.
This course provides a theoretical base for analyzing the content and structure of popular and classical adolescent literature. It emphasizes content, imaginative structures, cultural issues, and the influence of various adolescent texts on other literary forms and on literary history.
Prerequisites: ENGL 1123 and ENGL 1133.

ENGL 2263 English Literature to 1800: 3 semester hours.
Critical examination of poetry, prose, and drama from the Anglo-Saxon to the Neoclassical period, emphasizing their historical and cultural contexts.
Prerequisites: ENGL 1133.

ENGL 2273 English Literature after 1800: 3 semester hours.
Critical examination of poetry, prose, and drama from the neoclassical period to the present, emphasizing their historical and cultural contexts.
Prerequisites: ENGL 1133.

ENGL 2283 Intro Afi Lit: 3 semester hours.
Critical examination of the development of African literature, emphasizing historical and cultural contexts, and literary analysis.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 2293 Latin American Lit: 3 semester hours.
Critical examination of the development of Latin American literature from its inception to the present, emphasizing historical and cultural contexts, and literary analysis.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 2303 Introduction to Film: 3 semester hours.
Introducing students to the terminology, concepts, history, and criticism of film, this course enables students to critically examine film as a text within its social, cultural, and historical contexts.
Prerequisites: ENGL 1123.

ENGL 2313 Introduction to Creative Writing: 3 semester hours.
Introductory course in the three fundamental creative forms: poetry, prose fiction, and drama.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 2333 Studies in Literature: 3 semester hours.
Study of prose or verse in an area unified by period, theme, language source, or nation of origin, consisting of multiple genres. This course introduces students to studies in such areas as genre, literary movements, gender, and ethnic literatures.
Prerequisites: ENGL 1123.

ENGL 2383 Survey of World Literature: 3 semester hours.
A survey of representative works and translations of major authors and texts from the earliest literature to the present and from various world cultures.
Prerequisites: ENGL 1123.

ENGL 2423 American Literature to 1865: 3 semester hours.
Critical examination of the colonial period to 1865, including poetry, prose, and drama in their historical and cultural contexts.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 2433 American Literature 1865 to Present: 3 semester hours.
Critical examination of the period 1865 to the present, including poetry, prose, and drama in their historical and cultural contexts.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3023 Cr Wr Processes: 3 semester hours.
This course focuses on the processes of using elements such as significant detail, lyrical language, memorable image; metaphor and simile; voice, dialogue, and characterization that make for vivid, effective writing across genres. We will emphasize fiction and poetry, but will also address genres such as the essay, drama, and screenwriting.
Prerequisites: ENGL 1133 or ENGL 1143.
ENGL 3043 Professional Writing for Electronic Media: 3 semester hours.
Application of principles of effective professional writing to the planning, production, and evaluation of electronic media, emphasizing writing that employs new forms of electronic communication such as electronic mail, web pages, and other dynamic interactive modes.
Prerequisites: ENGL 1143 or ENGL 1133.

ENGL 3053 Survey of African-American Literature: 3 semester hours.
Critical examination of selected oral and written poetry, prose, and drama dealing with the African American experience from the colonial period to the present, emphasizing historical and cultural context and literary analysis.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3063 Studies in African-American Literature: 3 semester hours.
Comprehensive critical examination of the works of a single writer, group of writers, literary genre, significant period or periods, emphasizing historical and cultural context and literary analysis.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3153 Literary Theory and Criticism: 3 semester hours.
A study of theoretical texts and the critical methods essential to textual analysis. The course will emphasize applications of literary theory and criticism in the interpretation of poetry, fiction, and drama.
Prerequisites: ENGL 1133.

ENGL 3213 The English Language: 3 semester hours.
Survey of phonological, grammatical, and lexical development of the English language from its proto-Germanic roots to its present form, emphasizing cultural, structural, literary, and socio-political aspects.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3223 Advanced Grammar: 3 semester hours.
Study of morphology, syntax, and semantics of the English language, conventional grammatical terminology, inflectional forms, grammatical classifications, and structural patterns.
Prerequisites: ENGL 1133.

ENGL 3243 Studies in American Literature: 3 semester hours.
Comprehensive critical examination of the works of a group of writers, literary genre, theme, significant period or periods, emphasizing historical and cultural context and literary analysis.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3273 The Romantic Movement: 3 semester hours.
Critical examination of prose, poetry, and dramatic works from the Romantic era, including their historical, cultural, and literary contexts.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3283 Victorian Literature: 3 semester hours.
Critical examination of prose, poetry, and dramatic works from the Victorian era, including their historical, cultural, and literary contexts.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 3313 Creative Writing and Poetry: 3 semester hours.
Introductory course in a variety of verse forms and styles, from haiku to completion of sonnets to song lyrics to free verse.
Prerequisites: ENGL 2313.

ENGL 3323 Creative Writing: Prose: 3 semester hours.
Introductory course in prose fiction. Focusing on constructing plots, characters, dialogue, and narrative point of view.
Prerequisites: ENGL 2313.

ENGL 3333 Creative Writing: Drama: 3 semester hours.
Course in long and short dramatic forms, focusing on play-plotting, character development, and dialogue.
Prerequisites: ENGL 2331.

ENGL 3993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics at the 3000 level.

ENGL 4003 Teaching English Language Arts: 3 semester hours.
Focuses on the various components of the English Language Arts curriculum: methodologies, assessment, studies in English language variation, literature, and composition with an emphasis on the knowledge, critical pedagogies and dispositions expected of certified educators. Presents strategies for differentiated instruction throughout integrated teaching of secondary English Language Arts.
Prerequisites: ENGL 3043 or ENGL 3223 and CUIN 3003 or CUIN 3013.

ENGL 4213 Eighteenth-Century Literature: 3 semester hours.
Period course in the poetry and prose of the neoclassical period and the pre-Romantics.
Prerequisites: ENGL 1133 or ENGL 1143.
ENGL 4223 Shakespeare: 3 semester hours.
Critical examination of Shakespeare's representative comedies, histories, and tragedies, emphasizing a study of their historical, cultural, and literary contexts. Course may include his non-dramatic works.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 4233 Medieval Literature: 3 semester hours.
Critical examination of Anglo Saxon and Medieval literature (700-1500 A.D.) through intensive reading of Old English heroic, elegiac, and religious poetry and Middle English romance, allegory, lyric, and drama, including Chaucer.
Prerequisites: ENGL 1133 or ENGL 1143.

ENGL 4243 Studies in the Novel: 3 semester hours.
Comprehensive critical examination of the works of single novelist, a group of novelists, significant period, or selected theme with an emphasis on the historical, cultural, and literary contexts of the time.
Prerequisites: ENGL 1133.

ENGL 4313 Advanced Poetry Writing and Poetics: 3 semester hours.
Modernist and postmodern poetics, analysis of examples of poetry from contemporary schools and the writing of a long poem or series of short poems from these perspectives.
Prerequisites: ENGL 3313.

ENGL 4333 Film/Script Writing: 3 semester hours.
Course focuses on analysis and writing methods in comedy and the detective film.
Prerequisites: ENGL 3333.

ENGL 4333 Film/Script Writing: 3 semester hours.
Seminar offers a critical examination of a topic within the instructor's field of specialization. Emphasis on scholarly analysis and research allows students to demonstrate the capacity to bring information, skills, and ideas acquired from the English major and various curricula to bear on a major project. May be repeated once for credit when the topic varies.
Prerequisites: ENGL 3153 or ENGL 3053 or ENGL 3063 or ENGL 3243.

ENGL 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics.

Entrepreneurship (ENTR)

Courses

ENTR 3013 Economics for Entrepreneurs: 3 semester hours.
This course elaborates upon and applies economics principles, concepts and techniques useful to entrepreneurs. Topics include supply and demand, revenue management, cost minimization, profit maximization, pricing strategies, labor compensation strategies, game theory and competitive strategies, auctions, the macroeconomic environment, financing strategies, forecasting, and international trade and finance.
Prerequisites: MGMT 2013.

ENTR 3023 Diversity Entrepreneurship: 3 semester hours.
This course provides students with an understanding of the historical and contemporary state of women, ethnic (Asian, Middle Eastern and other immigrant groups) and minority (e.g. Black, Hispanic and Native Americans) entrepreneurs. Emphasis is given to how these groups develop ventures and create wealth.
Prerequisites: MGMT 2013.

ENTR 3033 Social Entrepreneurship: 3 semester hours.
Social Entrepreneurship, which refers to the use of business skills to develop innovative approaches to societal problems, will introduce the concept of social enterprises, the challenges unique to starting and growing them, the emerging capital markets for social ventures, the possible trade-offs in social and financial returns, and some unique expectations and challenging management decisions that are inherent in growing social enterprises.
Prerequisites: MGMT 2013.

ENTR 3093 Special Topics: 3 semester hours.
This course provides the flexibility of presenting a variety of contemporary topics of interest in entrepreneurship. The ever evolving business environment will present new entrepreneurial opportunities to serve customer needs, involving a variety of goods and services, such as oil and gas, telecommunications, medical services or real estate. Topics addressed in this course will vary depending upon student interest and the needs of the market.
Prerequisites: MGMT 2013.

ENTR 4043 New Venture Creation: 3 semester hours.
This is a hands-on capstone course that focuses on new venture creation and requires a feasibility analysis of the new organization. Working in teams, students will learn to identify, conceptualize, plan, finance, launch, manage and harvest the rewards of building a new venture. Students will be required to actually do all the planning, create the appropriate documentation and present the complete business plan as though it were going to start in the immediate future.
Prerequisites: MGMT 3333.
Finance (FINA)

Courses

FINA 2003 Wall Street 101: 3 semester hours.
The course introduces fundamental knowledge of financial markets to students and provides students with hands-on learning and trading experiences using virtual money; topics covered include stock market, fixed-income market, currency market, principles of investment and trading.

FINA 2103 Personal Financial Management and Planning: 3 semester hours.
Covers the basics of personal money management and financial planning which is essential for every citizen in life; topics covered include personal financial planning, savings and debt financing, investment in stocks and bonds, auto and home financing, insurance, retirement and estate planning.

FINA 3013 Fundamentals of Financial Planning: 3 semester hours.
This course prepares students for the business of financial planning. Issues covered include the financial planning process, client interaction, time value of money applications, personal financial statement construction and analysis, cash flow and debt management, ethical issues and considerations, and education planning.
Prerequisites: FINA 2103.

FINA 3103 Principles of Finance: 3 semester hours.
Fundamental tools and techniques applicable to financial planning of businesses. Covers valuation of securities, risk-return relationship, capital budgeting, management of current assets and liabilities with extension to international areas.
Prerequisites: ACCT 2123.

FINA 3113 Real Estate Principles: 3 semester hours.
An introduction to the study of the economic and legal environment in which real property is transferred and used.
Prerequisites: ACCT 2123 and ECON 2113.

FINA 3333 Investment Analysis: 3 semester hours.
Survey of the risks and returns of investment media in relationship to the investment objectives of individual and industrial investors. Includes an examination of the capital markets, information flows, and analytical techniques in terms of their impact upon the valuation process.
Prerequisites: FINA 3103.

FINA 3383 Financial Markets and Institutions: 3 semester hours.
Domestic financial institutions and markets and their interaction in the flow of funds in the economy and the central bank and other regulatory institutions will be analyzed with an extension to international markets and institutions.
Prerequisites: FINA 3103 and ECON 2123.

FINA 3393 Finance Internship I: 3 semester hours.
Supervised full-time training in industry, government or other agencies for junior-level finance majors. Individual conferences, company performance evaluations and written reports required. The duration of the program will be one regular semester or two consecutive summer terms.
Prerequisites: FINA 3383.

FINA 4213 Managerial Finance: 3 semester hours.
Issues and problems faced by financial managers with emphasis on financial analysis, capital budgeting, capital structure, dividend policy, and corporate restructuring.
Prerequisites: FINA 3103.

FINA 4303 Money and Banking: 3 semester hours.
Covers a wide spectrum of topics and issues in banking and finance, including the role and nature of money in the economy, bank management, technological innovations and the practice of banking, creation and regulation of the money supply and the institutions involved, monetary policies and the role of the Federal Reserve and Treasury Department.
Prerequisites: ECON 2123.

FINA 4313 Investment Management: 3 semester hours.
Principles of portfolio management, portfolio optimization, asset allocation, asset pricing models, investment strategies, and timing techniques portfolio performance evaluation.
Prerequisites: FINA 3333.

FINA 4343 Financial Statement Analysis: 3 semester hours.
A study of financial statements in a variety of firm valuation contexts. The course provides various tools for evaluating a firm’s accounting and financial performance, the concept of earnings quality, and other related issues.
Prerequisites: (ACCT 3213 and FINA 3103).

FINA 4353 International Finance: 3 semester hours.
International financial markets and the flow of funds, exchange rates, parity relationships and arbitrage Exchange rate risk and its management, short-and long-term financing, asset and liability management, capital budgeting, and direct foreign investments for multinationals; international banking issues.
Prerequisites: FINA 3103 and ECON 2123.
FINA 4383 Derivative Securities: 3 semester hours.
Valuation of options and financial futures; risk management and hedging applications using options and futures; primary focus on stock options, index options, stock index futures, interest rate futures, foreign exchange futures options.
Prerequisites: FINA 3103.

FINA 4393 Finance Internship II: 3 semester hours.
Supervised full-time training in industry, government, or other agencies for senior-level finance majors. Individual conferences, company performance evaluations and written reports required. The duration of the program will be one regular semester or two consecutive summer terms.

FINA 4433 Financial Planning Capstone: 3 semester hours.
Integration of relevant areas in the financial planning process; approaches to financial planning and the strengths and weaknesses of each; data collection and analysis of personal planning situations; client presentation; use of case analysis, emphasis on ethics and professional conduct.
Prerequisites: ACCT 3333 and FINA 3123 and FINA 3333 and FINA 4113 and FINA 4123.

FINA 4453 Special Topics in Finance: 3 semester hours.
Supervised full-time training in industry, government, or other agencies for senior-level finance majors. The course would provide a form to bring in special issues/topics of interest in the finance majors. Individual conferences, company performance evaluations and written reports required. The duration of area, such as hedge funds, speculative markets, mergers and acquisitions, and the program management of financial institutions. It will be one regular semester or two consecutive flexible in terms.
Prerequisites: ECON 2113 and ECON 2123 and FINA 3103.

FINA 4993 Independent Study in Finance: 3 semester hours.
Reading, research, and/or field work on selected topics.

FINA 5003 Concepts of Finance: 3 semester hours.
An overview of financial securities and markets, financial statement analysis, cash budgeting, working capital management, time value of money, valuation of securities, and capital budgeting.

FINA 5103 Theory of Financial Management: 3 semester hours.
Risk-return analysis, cost of capital, cash-flow analysis in capital budgeting, capital structure policy, dividend policy, corporate restructuring, and international financial management.

FINA 5313 Investment Analysis and Management: 3 semester hours.
Fundamentals of investment, investment securities and markets, analysis of risk and return, fixed income securities and valuation, common stock and valuation, mutual funds, options and futures, portfolio theory and management.
Prerequisites: FINA 5003.

FINA 5333 International Finance: 3 semester hours.
International financial markets and the flow of funds, in risk management for multinationals, short- and long-term financing for multinationals, multinational capital budgeting, direct foreign investment, country risk analysis, and international banking.
Prerequisites: FINA 5003.

FINA 5383 FIN MRKT & Inst: 3 semester hours.
Analysis of the major financial markets, domestic and international, and their interrelationship through interest rates and prices, as well as flow of funds and price behavior of the market as a whole. Also, the role of financial institutions in the flow of funds and their regulation. Prerequisite(s): FINA 5003, ECON 5003 or equivalents.
Prerequisites: FINA 5003 and ECON 5003.

FINA 5573 Case Studies in Finance: 3 semester hours.
Integration of financial and economic theories to analyze and solve financial problems facing corporations. Real and simulated cases will be analyzed.
Prerequisites: FINA 5103.

Finance for Executives (EFIN)

Courses

EFIN 5103 Topics in Corporate Finance: 3 semester hours.
Integration of financial and economic theories to analyze and solve major financial problems facing corporations. Real and simulated cases will be analyzed. Covers topics such as capital budgeting, capital structure, mergers and acquisitions, bankruptcy and reorganization, and risk management.

Food Science (FDSC)

Courses

FDSC 3583 Food Quality Assurance and Sanitation: 3 semester hours.
Examination of the elements of a comprehensive quality assurance program. Areas of study include sanitation, pest control, waste disposal, food law regulations, sensory testing, panel selection and training, and experimental design and analysis of data.
FDSC 3593 Food Bacteriology: 3 semester hours.
Microbiology of human foods and accessory substances. Raw and processed foods, physical, chemical and biological phases of spoilage. Standard industry techniques of inspection and control.

FDSC 4573 Food Processing and Engineering: 3 semester hours.
Study of the principles and practices of thermal processing, quick freezing, dehydration, fluid flows, heat transfer, pickling and juice manufacture.

French (FREN)

Courses

FREN 1013 Elementary French I: 3 semester hours.
Practice in listening, speaking, reading and writing skills in French to acquire elementary vocabulary and structures, and a general knowledge of French culture.

FREN 1023 Elementary French II: 3 semester hours.
Continuation of acquisition of language skills and culture introduced in Elementary French I.
Prerequisites: FREN 1013.

FREN 2013 Intermediate French I: 3 semester hours.
Continuation of acquisition of language skills and culture introduced in Elementary French I and II.
Prerequisites: FREN 1023.

FREN 2023 Intermediate French II: 3 semester hours.
Continuation of acquisition of language skills and culture on an intermediate level with emphasis on reading and discussion, grammar review and use of idioms.
Prerequisites: FREN 2013.

FREN 4993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics. Prerequisite: consent of department head.

General Engineering (GNEG)

Courses

GNEG 1011 Engineering Professional Concepts: 1 semester hour.
Professional orientation and synthesis. Introduction to engineering practices and methods of analysis. Written and oral presentations and discussions by students, faculty, and visiting professionals on topics of timely interest relative to the engineering professional and professional development.

GNEG 1021 Engineering Prof Concpt II: 1 semester hour.
Professional orientation and synthesis. Introduction to engineering practices and methods of analysis. Written and oral presentations and discussions by students, faculty, and visiting professionals on topics of timely interest relative to the engineering professional and professional development.

GNEG 1111 Engineering Applications Lab I for Mathematics: 1 semester hour.
Practical applications of Algebra and Trigonometry for problems in engineering, computer science, and technology. Algebra and Trigonometry concepts will be reinforced through hands-on, physical application in the laboratory.
Co-requisite: MATH 1115.

GNEG 1121 Engineering Lab II for Mathematics: 1 semester hour.
Practical applications of the 1st level Calculus for problems in engineering, computer science, and technology. The 1st level Calculus concepts will be reinforced through hands-on, physical application in the laboratory.
Co-requisite: MATH 1124.

GNEG 2021 Engr Lab III for Math: 1 semester hour.
Practical applications of the 2nd level Calculus for problems in engineering, computer science, and technology. The 2nd level Calculus concepts will be reinforced through hands-on, physical application in the laboratory.
Co-requisite: MATH 2024.

GNEG 2151 Engineering Research I: 1 semester hour.
Research methodology course, the content of which includes an introduction to scientific method, formulation of research question, development and implementation of research plan, analysis and evaluation of results, and reporting of findings.

GNEG 2156 Engineering Cooperative Education I: 6 semester hours.
A cooperative program of engineering with an approved engineering-based industry, engineering consulting firm, or governmental regulatory agency engaged in planning and administration of engineering functions. The student receives related engineering assignments in a real work situation. The assignment is commensurate with the theoretical engineering experience of the student.
GNEG 3051 Professional Engineering: 1 semester hour.
Fundamentals of engineering and related science subjects include biology, chemistry, computers, electric circuits, engineering economics, ethics, fluid mechanics, materials science, mathematics, statics, dynamics, mechanics of materials, and thermodynamics. Prerequisites: MATH 2043 and CHEG 2003 and (ELEG 1043 or COMP 1213) and (CVEG 2053 or CVEG 2454) and (ELEG 2023 or ELEG 2053) and (CHEG 2043 or MCEG 2013) and (CHEG 2013 or MCEG 2023 or ELEG 3033) and (CHEG 3023 or CVEG 3063 or ELEG 3063 or MCEG 3063).

GNEG 3061 Introduction to Engineering Project Management: 1 semester hour.
Principles and techniques of managing engineering and software projects. Topics include project initiation, estimating, resource allocation, developing work plans, scheduling, progress tracking, design coordination, production coordination, quality management, managing teams and close out, and case study of real world projects. Prerequisites: CHEG 2003.

GNEG 3151 Engineering Research II: 1 semester hour.
This is a course of research activities consisting of library, laboratory, or other research activities on selected problems. Results of the research are presented in formal, oral, and written presentations. Prerequisites: GNEG 2151.

GNEG 3156 Engineering Cooperative Education II: 6 semester hours.
A cooperative program of engineering with an approved engineering-based industry, engineering consulting firm, or governmental regulatory agency engaged in planning and administration of engineering functions. The student receives related engineering assignments in a real work situation. The assignment is commensurate with the theoretical engineering experience of the student.

GNEG 4151 Engineering Research III: 1 semester hour.
A continuation of GNEG 3151; in-depth research on selected problems. Results of the research are presented in formal, oral, and written presentations. Prerequisites: GNEG 3151.

GNEG 5010 Research Seminar: 0 semester hours.
Current research/project in a wide range of fields presented by guest lecturers, faculty or students. Discussion period at the end of each presentation will permit the students to learn more about research methods and presentation techniques.

GNEG 5021 Research Seminar: 1 semester hour.
Current research/project in a wide range of fields presented by guest lecturers, faculty, or students. Discussion period at the end of each presentation will permit the students to learn more about research methods and presentation techniques.

GNEG 5023 Operations Research: 3 semester hours.
An introduction to quantitative modeling and optimization; linear and dynamic programming; queueing theory; inventory modeling; critical path systems; network flow modeling and technological forecasting.

GNEG 5033 Engineering Probability and Statistics: 3 semester hours.
Theory of permutations, combinations; statistical principles of analysis of random data probability as a basis of engineering design.

GNEG 5063 Engineering Analysis I: 3 semester hours.
Introduction to multi-variable calculus. Application of mathematical techniques to various engineering disciplines using linear partial differential equations-boundary value and initial value problems; Linear Optimization techniques.

GNEG 5073 Engineering Analysis II: 3 semester hours.
Complex variable theory using techniques such as conformal mapping, optimization and boundary value analysis, in engineering applications such as control systems and signal processing. Introduction to fractals (fractional dimensions) and their applications in geography and animation will be discussed. Prerequisites: GNEG 5063.

GNEG 5086 Thesis: 6 semester hours.
A candidate for the Master Science in Engineering is required to perform a study, design or investigation, under the direction of a faculty advisory committee. A written thesis is required to be presented, defended orally and submitted to the faculty advisory committee for approval.

GNEG 5133 Engineering Numerical Methods: 3 semester hours.
Numerical methods in engineering include fundamental numerical techniques involving recursion relationships, numerical quadratures, etc., applied to engineering problems. Emphasis will be placed on the solution of advanced engineering problems involving ordinary and partial differential equations. Proven and efficient finite methods will be covered with emphasis on engineering conceptualization and formulation. An introduction to finite elements analysis.

GNEG 5193 Special Topics: 3 semester hours.
Special topics in engineering relating to materials, renewable and non-renewable resources, environmental and energy fields are selected and discussed in detail. Considers all aspects of planning, design fabrication, development and implementation.

GNEG 5203 Graduate Internship: 3 semester hours.
A realistic experience in engineering to enhance the student's professional abilities. Students work on significant projects with industry firms or governmental agencies involving decision-making responsibility. Course requires oral and written report.
GNEG 5303 Graduate Project: 3 semester hours.
A study, design, or investigation, under the direction of a graduate faculty advisor. An oral presentation and a written report are required. Prerequisite: candidacy for the Non-Thesis-Option of the Master of Science in Engineering degree.

GNEG 5891 Research: 1 semester hour.
Methods and practice in research.

GNEG 5893 Research: 3 semester hours.
Methods and practice in research.

GNEG 5896 Research: 6 semester hours.
Methods and practice in research.

GNEG 5993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

Geography (GEOG)

Courses

GEOG 1113 Introduction to Geography: 3 semester hours.
A survey of the cultural and physical elements of geography, their characteristics, spatial organization, and distribution as viewed in the discipline today.

GEOG 1223 Introduction to Physical Geography: 3 semester hours.
General introduction to the field of geography, emphasizing the study of the physical earth and of man in his physical environment.

GEOG 2113 Introduction to Geographic Information System: 3 semester hours.
An introduction to the fundamentals of Geographic Information System (GIS) and science and art of making maps. The course introduces students to the basic principles of using GIS as a tool for managing and analyzing spatial data.

GEOG 2523 Urban Geography: 3 semester hours.
Study of the form, function, classification, internal land use and structure, and intercity and city/hinterland relations of urban areas, with particular emphasis on United States.

GEOG 2633 Cultural Geography: 3 semester hours.
A survey of the major cultures of the world, human-environmental relations and their dissimilar developments; processes of innovation, diffusion types, population patterns, growth and migration.

GEOG 2743 Geography of Africa: 3 semester hours.
Through an understanding of geographical facts, common myths associated with African history and development are dispelled. As a result, strong emphasis is placed on climates, physiography, natural resources, and social conditions in Africa. Selected countries are discussed in detail.

GEOG 3723 World Regional Geography: 3 semester hours.
A survey of the regions and nations of the world and the geographical foundations of their physical and cultural characteristics; a practical and systematic approach to the field of geography; a survey of the world in terms of outlook and regional types.

Health (HLTH)

Courses

HLTH 1023 Human Sexuality: 3 semester hours.
Examination of the foundations and characteristics of the American family; factors involved in learning sex roles, biological and emotional motivations, preparation for marriage, family planning, and parental roles.

HLTH 1063 Environmental Health: 3 semester hours.
Health aspects of environment, including health problems related to water, air, and noise pollution, pesticides, population, and radiation.

HLTH 2003 Personal Health and Wellness: 3 semester hours.
Study of the personal health concepts with emphasis on body systems, emotional health, drug use and abuse, disease, nutrition, and family and community health. Theory and practice in developing, implementing and evaluating philosophies of wellness programs.

HLTH 2023 Communicable and Noncommunicable Diseases: 3 semester hours.
Nature, prevention, control, and treatment of communicable, chronic, degenerative, and idiopathic human disease, with principles related to causality of disease and to the body's ability to resist.

HLTH 2033 Aging, Death and Dying: 3 semester hours.
Examination of the aging process and health problems of the elderly; differing perceptions of death; dimensions of death and dying; euthanasia: and grief and mourning.
HLTH 3003 Health Education for the Elementary School: 3 semester hours.
Fundamentals of health including health problems, interests, school health appraisal, and promotion of a healthful environment. Emphasis on health agencies and organizations on the local, state, and national levels.

HLTH 3013 Nutrition: 3 semester hours.
Basic scientific information on nutrition and on its relationship to the biological needs of humans. An analysis and review of the selection and quality of nutrients essential to growth, development, and efficiency.

HLTH 3033 Research and Contemporary Issues in Health: 3 semester hours.
Scientific examination of current health concepts. Emphasis on those curricular and evaluative concepts necessary for selecting, appraising, utilizing and analyzing health related materials, resources, and instruments.

HLTH 3043 Consumer Health: 3 semester hours.
Investigation and analysis of consumer health problems, with emphasis on the function, organization, and administration of public health services at the local, state, regional and national levels.

HLTH 3053 Public and Community Health: 3 semester hours.
Focus on the aspects of the community that relate to health; identification and analysis of community health programs; organizational patterns and functions of voluntary and governmental health agencies; organizing the community for health action; and coordination of school and community health programs.

HLTH 3093 Drugs and Health: 3 semester hours.
Focus on substances that modify human behavior and emotions; the nature of drugs; historical and contemporary use; drug abuse; social implications; development and implementation of drug programs; and legislative implications.

HLTH 4063 Health and Communities: 3 semester hours.
Principles of community health education as a foundation for subsequent consideration of health issues and problems of populations. In-depth focus on assessment and analysis of specific health problems in defined population of client organizations, institutions, and/or community members.

HLTH 4073 Community Health Planning and Assessment: 3 semester hours.
Examines the relationship of community health planning and assessment to health education in both urban and rural communities. Emphasizes theory processes and methods applicable to the health care services delivery system.

HLTH 4083 Problem Solving and Evaluation for Community Health Programs: 3 semester hours.
Evaluation of psycho-social-cultural health problems and influences on human behavior and health education strategies and outcome measurement.

HLTH 4991 Independent Study: 1 semester hour.
Reading, research, and/or field work on selected topics.

HLTH 4993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

HLTH 5043 Alcohol and Drugs: 3 semester hours.
Development and evaluation of educational approaches for primary and secondary prevention of alcohol and other drug abuse and misuse within populations in elementary and secondary schools, businesses, health agencies, higher education and general communities.

HLTH 5063 Human Behavior and Health Education: 3 semester hours.
Analysis of social, psychological and cultural determinants of health related behaviors. Critical review of each factor for interpretation and application in a variety of settings, including classrooms, worksites, health care agencies, and higher education centers.

HLTH 5073 Epidemiology and Diseases: 3 semester hours.
Epidemiologic methods for administrators, policy analysts, and education planners. Identification of and analysis factors influencing infections and chronic diseases in groups of people with a variety of community settings, including schools, businesses, industry, and the health care market.

HLTH 5133 Seminar- Selected Topics: 3 semester hours.
Etiology, epidemiology and impact of health-related behaviors on illness and wellness within specific populations which may impact school, occupational and community health.

HLTH 5143 Medical Foundations for Health Professions: 3 semester hours.
Medical and psychosocial approached to disease detection, prevention and rehabilitation. Emphasis on current trends for the advancement of primary health in school groups, public communities, and special populations.

HLTH 5173 Nutrition and the Environment: 3 semester hours.
Understanding natural principles underlying health issues related to human ecology, nutrition, and non-infectious disease control and population problems.

HLTH 5183 Contemporary Health: 3 semester hours.
Review of factors relating to selected high morbidity and mortality in urban and rural environments. Study of related psycho-social health problems faced by practicing health educators in a dynamic health care market involving school-based and community-based populations.

HLTH 5193 Community Health: 3 semester hours.
Examination of the mission, goals, and policies of community and public health. Current principles, practice models, functions, roles, issues, and policies are critically analyzed.
History (HIST)

Courses

HIST 1313 U.S. to 1876: 3 semester hours.
This course covers American development from the era of discovery to the close of the Civil War. This course includes modules on the following topics: the colonial era; the young republic; westward expansion; and sectionalism; Civil War, and Reconstruction.
Prerequisites: RDNG 0131.

HIST 1333 History of Texas: 3 semester hours.
Survey of Texas from Spanish colonization to the present. Emphasis will be placed on contributions made to the state of Texas by various ethnic groups.

HIST 1343 Intro to Historical Methods: 3 semester hours.
This course is designed to introduce students majoring in History and American studies to methodological developments in the historical profession, with emphasis on twentieth century advances.

HIST 1813 World Civilization to 1500: 3 semester hours.
Survey of the ancient world from the dawn of civilization in Egypt, Mesopotamia, China, India and Mesoamerica through the Middle Ages in Europe. Attention is given to political, social and economic institutions as well as art, literature and religion.

HIST 1823 World Civilization since 1500: 3 semester hours.
Survey of key developments in Western and non-Western civilizations from the Renaissance in Europe to the present. Special emphasis is placed on religious expansion and conflict, militarism, intellectual and political revolutions, formation of modem nation-states, and colonialism and post-colonialism.

HIST 2203 Military History: 3 semester hours.
Military History - Past Wars, conflicts and study of war heroes.

HIST 2313 The U S -1492 to 1832: 3 semester hours.
American development from the period of discovery to the close of Jackson's Presidency. This includes the colonial era, the American Revolution, and the Constitution, the growth of democracy in the young republic, and the conflict between sections that produced national crisis. Lectures, discussions, special maps, and written reports. Offered first semester yearly.

HIST 2323 The U S 1837 to 1898: 3 semester hours.
Surveys period of bourgeois revolution and the rise of group democracy in America by examining the rise of common man, slavery-abolition-sectional imperialism, popular sovereignty-the last formula, the irreplaceable conflict and the new nation, and the problems of industrialism. Also covers postwar industry, labor, and agricultural. Lectures, discussions, special maps and written reports.
Prerequisites: HIST 2313.

HIST 2413 Pre-Colonial African History: 3 semester hours.
Study of African history before the arrival of the Europeans which examines the growth and evolution of political, social, and economic institutions of various African countries. Special attention will be given to the western portion of Africa (Ghana, Mali, and Songhay) and areas south of the Sahara.

HIST 2423 Post-Colonial African History: 3 semester hours.
Survey of African History since the end of WWII; events and issues leading up to independence; efforts at nation-building; problems of political instability and economic development.

HIST 2433 Colonial Latin American and Caribbean History: 3 semester hours.
This course provides students with an understanding of the historical experience of the region from first contact with Europeans through the wars of independence.

HIST 2613 African History: 3 semester hours.
This course is a systematic study of African History. It looks at the forces impacting the growth and evolution of the political, social, and economic institutions of various countries of Africa, with a concentration on the western portion of Africa (Ghana, Melle, and Songhay region), south of the Sahara.

HIST 3223 Women in History: 3 semester hours.
A survey of selected issues related to the historical status of women in Africa, Asia, Europe, and the Americas, with emphasis on African-American women in the United States since slavery.
**HIST 3233 Study in American History: 3 semester hours.**
This course presents a detailed examination of American history. Students will analyze the myriad issues which flow from questions of nationality, ethnicity, race, class, and gender in the midst of an industrializing nation with innumerable burgeoning political, economic, social, and cultural institutions.

**HIST 3323 Contemporary United States: 3 semester hours.**
Analysis of the emergence of the United States as a modern nation and examination of the changing United States’ social, political, economic, cultural and diplomatic scene with emphasis on the progressive trends, 1900 - Present.

**HIST 3913 American Historiography: 3 semester hours.**
Survey of the writing of American history, with emphasis on social-intellectual motivation and historical theory. Representative historical literature of the following periods will be examined: colonial and revolutionary; the "Middle Period," literary and romantic; and modern and contemporary. Lectures, discussions, independent study, and special reports.

**HIST 3993 Independent Study: 1-3 semester hour.**
Readings, research, and/or field work on selected topics.

**HIST 4213 African American History to 1865: 3 semester hours.**
Analysis of the experiences of African Americans from colonial time to the end of the Civil War.

**HIST 4223 African American History 1865-Present: 3 semester hours.**
Traces the social, economic, cultural, and political activities of African Americans from Reconstruction through the Civil Rights movement.

**HIST 4313 Foreign Relations: 3 semester hours.**
Diplomatic history of the United States covering the following: the colonial background and the emergence of the cardinal principles of American foreign policy and its mechanics through the revolutionary and early national periods, the New Nationalism, Manifest Destiny and Westward Expansion, Civil War diplomacy, and projections abroad. Lectures, book reports, forums, and research projects.

**HIST 4323 Diplomatic History of the U.S.: 3 semester hours.**
A topical survey of United States diplomacy covering the following: the New Manifest Destiny, and the extension of the nation's commitments, the Great Crusade and after, the United States, the Second World War, and post-war diplomacy. Lectures, book reports, forums, and research projects.

**HIST 4443 Special Topics: 3 semester hours.**
This course focuses on specific historical topics that the professor deems appropriate and student's desire. May be repeated for credit when topics vary.

**HIST 4903 Senior Seminar: 3 semester hours.**
Advanced training in historical methods and historiography designed to measure student’s understanding and mastery of the discipline.

**HIST 4993 Independent Study: 3 semester hours.**
Readings, research, and/or field work on selected topics.

**Honors Colloquium (HCOL)**

**Courses**

**HCOL 1133 Honors Colloquium I: 3 semester hours.**
This is an introductory Honors course that examines the intellectual history of Post-Modern Africa. The course investigates the far-reaching changes in Africa during the 20th and 21st centuries.

**HCOL 1213 Honors Colloquium II: 3 semester hours.**
This Honors course examines the impact of Hollywood's representation of Africa and Black people of the African Diaspora. The course explores the constructs of myths, stereotypes, images, films, and "Master Narratives" about Western justifications to control the affairs of Africa and Black people in general.

**Human Development & Family (HDFM)**

**Courses**

**HDFM 2513 Childhood Disorders: 3 semester hours.**
This course is designed to introduce a general overview and treatment of major childhood disorders. It examines the history of childhood psychopathology, theories of development, medical and biological factors, mental retardation, drug and alcohol use, social and environment factors that relate to childhood problems.

**HDFM 2533 The Contemporary Family in Cross-Cultural Perspective: 3 semester hours.**
Analysis of family interaction patterns, roles, and functions, throughout the life cycle as influenced by customs, cultural diversity, and socioeconomic status with implications for broader understanding of a multicultural society. Examination of public policies and procedures impacting family functioning.
HDFM 2543 Pre-Adolescent and Adolescent Development: 3 semester hours.
Study and analysis of individual development from age twelve through twenty. Examination of developmental theories and current critical issues with emphasis on the role and relationships among family, peer, school and community interactions during these formative years. Observation, recording and evaluation of behaviors required.

HDFM 2553 Human Development: Life Span: 3 semester hours.
The dynamic processes of co-development of the individual from conception to senescence in physical, sensory, intellectual, emotional, and social development. Pattern of self-development with focus on the interaction between and among individuals.

HDFM 3503 Early Childhood Environments: 3 semester hours.
Study and analysis of varied environments for children. Guidelines for program planning, identification and selection of creative and expressive materials and equipment, staffing, organization and management, record keeping, licensing requirements, parent/child/teacher interactions, and effective guidance techniques. Observation, participation and assessment required.

HDFM 3513 Individual and Family Counseling Strategies: 3 semester hours.
Study, assessment and application of basic interviewing and counseling strategies to include varied interviewing models, techniques and methods which facilitate individual and family interactions.

HDFM 3523 Parenting Issues and Education: 3 semester hours.
Principles and patterns, philosophies and theories, methodologies and practices, and resources for the design, implementation, and evaluation of programs for enhancing parenting skills in the parent-child relationship.

HDFM 4513 The Family in Crisis: 3 semester hours.

HDFM 4543 Human Sex Lifespan: 3 semester hours.
Analysis and treatment of varied factors affecting sexual functioning among men and women with an emphasis on marital and family dynamics. Emphases also given male and female sexual dysfunctional behavioral and psychological dynamics.

Human Nutrition & Food (HUNF)

Courses

HUNF 1343 Nutrition and Wellness: 3 semester hours.
Introduction to human nutrition and food. Study of human nutritional needs and problems encountered in providing food for the satisfaction of physiological and socio-cultural system needs, and the significance of these interrelationships to health. Discussion of current nutritional issues.

HUNF 2533 Intermediate Nutrition: 3 semester hours.
Study of the principles of nutrition and the application of these principles to providing adequate nutrition to humans. Introduction to the biochemical and physiological approach to nutrition will be emphasized.
Prerequisites: HUSC 1343.

HUNF 2633 Food Service Systems: 3 semester hours.
Study of the layout and design, equipment selection, and specifications of Food Service organizations, with emphasis on safety, sanitation, labor and financial control and consumer distribution.

HUNF 2653 Food Principles and Meal Management: 3 semester hours.
Principles of preparation, organization, and management applied to planning, preparation, serving, and marketing nutritious meals to individuals and groups at varied socioeconomic levels. Management of work areas, organization techniques, and standards for meal service and table appointments.
Prerequisites: HUSC 1343.

HUNF 2663 Food Systems Management: 3 semester hours.
Management principles, process and control strategies, roles and responsibilities in food service systems. Application of food preparation and management principles to quantity food production including menu planning, procurement, storage and distribution.

HUNF 3613 Nutrition Throughout the Lifecycle: 3 semester hours.
Comparative assessment evaluation of nutrition and dietary requirements throughout the lifecycle. Pre-pregnancy, pregnancy, lactation, infancy, childhood, adolescence. adulthood, and aging. Nutritional needs on the basis of both physical growth and psychological development are emphasized.
Prerequisites: HUSC 1343.

HUNF 3623 Food Science and Technology: 3 semester hours.
Principles and techniques of food processing and preservation and their effects on nutrient retention. Food and drug regulations, food additives and standards of identity.
Prerequisites: CHEM 2033 (may be taken concurrently) and CHEM 2032 and HUNF 2653.

HUNF 3633 Advanced Nutrition: 3 semester hours.
A review of the fundamentals of human nutrition. Course provides a comprehensive study of the structure and functions of carbohydrates, fats, proteins, vitamins and minerals in metabolism, and how these nutrients are used in the prevention of diseases.
Prerequisites: CHEM 4003 and HUNF 2533.
HUNF 3653 Nutrition and Disease: 3 semester hours.
Study of the physiological and metabolic anomalies in chronic and acute diseases, and principles of nutritional therapy and prevention. Computer assisted nutritional assessment and diet calculations.
Prerequisites: HUNF 3613.

HUNF 3993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

HUNF 4303 Human Nutrition and Food Practicum: 3 semester hours.
Planned observation and entry-level work experience in selected clinical, hospital, business, industrial, educational or governmental settings in Nutrition, Food Science, Foods, Dietetics or Nutrition Research. Required field experience includes a minimum of 200 clock hours of supervised work activities.

HUNF 4413 Special Topics in Nutrition: 3 semester hours.
Study of a problem affecting some aspect of human nutrition, food, or the food industry. Reports, discussion and major project are required. Repeatable for up to 6 semester credit hours.
Prerequisites: HUNF 3653 and HUNF 4663.

HUNF 4473 Nutrition Counseling: 3 semester hours.
This course is a directed study in theories, behavior change models, nutrition counseling, ADA Scope of Dietetics Practice Framework, the Standards of Professional Performance, the Code of Ethics of Dietetics, interdisciplinary relationships, and current issues in Human Nutrition.
Prerequisites: HUNF 3653 and HUNF 4663.

HUNF 4603 Physiochemical Aspects of Food: 3 semester hours.
This course covers physical and chemical factors accounting for color, flavor, and texture of natural and processed foods. Laboratory experiments to illustrate the effects of varying ingredients and treatment on the quality of food products. Objective and Sensory testing to determine food quality characteristics will be conducted.
Prerequisites: HUNF 3623.

HUNF 4613 Research in Nutrition: 3 semester hours.
Investigate special topics in nutrition. Research methodology and computer application including statistical analysis. Proposals prepared by students and presented to instructor for approval. Students work independently, seeking guidance as necessary.
Prerequisites: MATH 2003.

HUNF 4663 Medical Nutrition Therapy I: 3 semester hours.
Focus will be on Nutrition Care Process in Nutritional Screening Assessment, and Diagnosis of Metabolic, Cardiovascular and infectious disease states. Emphasis will be on medical terminology, clinical, anthropometric and nutritional data analysis, documentation, and provision of care.
Prerequisites: HUNF 3613 and HUNF 3653.

HUNF 4673 Medical Nutrition Therapy II: 3 semester hours.
Focus will be on Nutrition Care Process (NCP) in the treatment of metabolic, cardiovascular and infectious disease states.
Prerequisites: HUNF 4663.

HUNF 4693 Community Nutrition and Health: 3 semester hours.
Study of human nutrition and health problems from a community perspective; programs and policies related to nutrition at local, state and federal levels; approaches and techniques of effective application and dissemination of nutrition knowledge in communities.
Prerequisites: HUSC 1343 and HUNF 3613.

HUNF 4993 Independent Study: 3 semester hours.
Readings, research and/or field work on selected topics.

Human Performance (HUPF)

Courses

HUPF 1131 Physical Fitness: 1 semester hour.
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

HUPF 1172 Foundations I: 2 semester hours.
Foundations of health and human performance. Areas of concentration will focus on history and philosophy, developmental stages, movement-related experiences and career development in health and human performance.

HUPF 1272 Foundations II: 2 semester hours.
Areas of concentration will focus on current health and human performance programs, physical fitness, and conditioning and self-analysis.

HUPF 1301 Weight Training: 1 semester hour.
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.
HUPF 1312 Sports Skills III: 2 semester hours.
Emphasis given to theory and application skills for fundamentals in physical fitness, conditioning and self-analysis, archery, and softball.

HUPF 1401 Restricted Performance Activities: 1 semester hour.
(Adapted to individual need and capacity.) Theory and practice of body mechanics, and techniques of relaxation; also quiet games, walking, calisthenics, and health films. Written recommendation of a physician is required.

HUPF 1412 Sports Skills IV: 2 semester hours.
Emphasis given to theory and application skills for fundamentals in aerobics, body mechanics, folk and ballroom dance, and modern dance.

HUPF 2053 Recreation for the Aged: 3 semester hours.
A study of the nature, scope, and significance of leisure and recreation. Emphasis is placed on methods and materials for planning, organizing, and conducting social activities for the aged in a variety of social situations.

HUPF 3083 Theory and Practice of Coaching II: 3 semester hours.
Theory and strategy of coaching baseball/softball, track and field, and soccer.
Prerequisites: (HUPF 1161 and HUPF 1181 and HUPF 1221).

Human Science (HUSC)

Courses

HUSC 1303 Elementary Textiles: 3 semester hours.
A study of fibers, yarns, fabric structure, dyes and finishes of fabrics. Analysis of fiber finish developments; properties of textile use with emphasis on aesthetic quality, mechanical properties, factors of degradation, laundering and cleaning. Review of recent textile trends.

HUSC 1313 Color and Design: 3 semester hours.
Basic design principles applied to everyday living. Study of the relationship of sociological and anthropological principles to current perspectives in related art. Emphasis on art application and the use of computer simulation in the translation of theoretical concepts of space, pattern texture, line and color to the major disciplines in human sciences.

HUSC 1333 Apparel Selection and Production: 3 semester hours.
Application of elements and principles of color and design and of sociological and psychological concepts of behavior to contemporary apparel design and production. Analysis of the relationship of design to figure type, personality, color, and fabrication.

HUSC 1343 Ecology of Human Nutrition and Food: 3 semester hours.
Introduction to human nutrition and food. Study of human nutritional needs and problems encountered in providing food for the satisfaction of physiological and socio-cultural systems needs, and the significance of these interrelationships to health. Discussion of current nutritional issues.

HUSC 1351 Human Sciences Perspectives: 1 semester hour.
The history and development of home economics as family, consumer and human sciences. Preparation, competencies and enrichment in the broad spectrum of human science professions; career development and career alternatives; interaction techniques for development of satisfying interpersonal skills.

HUSC 2313 Child Family & Comm: 3 semester hours.
Influence of family, society, and cultural forces on behavior of children. Role of parents, teachers and professional workers in the healthy personality development of the child.

HUSC 2373 Consumers and the Market: 3 semester hours.
Analysis of consumer competencies, attitudes, and concepts of the present market, market practices, aids toward intelligent buying of commodities, and the types of protection including legislation.

HUSC 3313 Program Planning I: 3 semester hours.
A study of human sciences and related programs with emphasis on the development of skills in the planning, financing, managing, and marketing of these programs to varied audiences. Includes methods of observation and assessment of human science programs and services rendered to in-school and out-of-school youth and adults.

HUSC 3323 Program Planning II: 3 semester hours.
Analysis of the application of multiple strategies appropriate for delivering human science concepts to varied audiences utilizing multifaceted mediums. Includes examination and use of media, materials, supplies, equipment, and procedures for management, motivation and evaluation techniques.

HUSC 3353 Housing and Human Environments: 3 semester hours.
The physical, psychosocial, and aesthetic relationships between man and his environment with specific reference to housing. Economic, cultural and technological trends in building, equipment, living patterns and design. Comparative analysis of current housing trends and styles required.

HUSC 3373 Child Development: 3 semester hours.
Study and analysis of individual development and behavior during the early school years to adolescence with emphasis on physical, cognitive, social, language, and emotional areas. Examination of developmental and learning theories, principles of normal and atypical development and varied guidance techniques. Observation, recording and evaluation of behaviors required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Enrollment</th>
<th>Description</th>
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<tbody>
<tr>
<td>HUSC 3993</td>
<td>Independent Study: 3 semester hours.</td>
<td></td>
<td>Readings, research and/or field work on selected topics.</td>
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<tr>
<td>HUSC 4304</td>
<td>Family Consumer Economics and Management: 4 semester hours.</td>
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<td>A systems approach to family resource management through theory analysis and exploration of varying family structure, styles, and conditions. Simulated laboratory in group living required. Laboratory fee required.</td>
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<tr>
<td>HUSC 4306</td>
<td>Human Sciences Internship: 6 semester hours.</td>
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<td>Planned program of observation and entry-level work experience in selected business or industrial firms, educational or governmental agencies/organizations in the food, agricultural and/or human sciences.</td>
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<tr>
<td>HUSC 4363</td>
<td>Family and Community Studies: 3 semester hours.</td>
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<td>Comprehensive study of the cultural, social, political, and technological influences that impact educational, business, and support service programs for individuals, families and groups in a changing society. Emphasis on philosophy, organization, planning, financing, implementation and assessment of the components of family and community service programs with special attention to the Cooperative Extension Service model. Review and evaluations of school and community based programs required.</td>
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<tr>
<td>HUSC 4993</td>
<td>Independent Study: 3 semester hours.</td>
<td></td>
<td>Readings, research, and/or field work on selected topics.</td>
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<tr>
<td>HUSC 5323</td>
<td>Marriage and Family Therapy Pre-Practicum: 3 semester hours.</td>
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<td>Experimental application of varied therapeutic techniques, i.e. lecture, role play, small group and self-exploration as applied by the therapist in a variety of therapeutic settings. Prerequisites: HUSC 5753.</td>
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<tr>
<td>HUSC 5326</td>
<td>Advanced Practice in Dietetics I: 6 semester hours.</td>
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<td>Preplanned experience at the professional level in dietetic administration, food service management, clinical and therapeutic nutrition and community and public health nutrition.</td>
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<tr>
<td>HUSC 5333</td>
<td>Introduction to Clinical Hypnosis: 3 semester hours.</td>
<td></td>
<td>History, ethic, suggestions, induction, and deepening techniques utilizing hypnosis with client issues. Training in understanding, interpretation, and application of various hypnotic approaches. Suggestions utilized with major hypnotically indicated illness, disorders and varying client concerns. Prerequisites: HUSC 5753.</td>
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<tr>
<td>HUSC 5336</td>
<td>Advanced Practice in Dietetics II: 6 semester hours.</td>
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<td>Continuation of Advanced Practice in Dietetics I.</td>
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<tr>
<td>HUSC 5343</td>
<td>Research Problems: 3 semester hours.</td>
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<td>Study of research methods, strategies and techniques application to the social and behavioral sciences with focus on individual and family studies and the role of research in professional and therapeutic services. Critical comparative analysis of the strengths and weaknesses of current research studies and the planning for needed research. Proposal writing required.</td>
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<tr>
<td>HUSC 5346</td>
<td>Marriage and Family Therapy Practicum II: 6 semester hours.</td>
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<td>Supervises clinical practicum in marriage and family therapy. Therapeutic sessions with a variety of client issues and the utilization of major therapeutic techniques required. 200 clock hours of supervised field placement required. Prerequisites: HUSC 5563.</td>
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<tr>
<td>HUSC 5353</td>
<td>Dietetic Seminar I: 3 semester hours.</td>
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<td>Study of the delivery of nutritional services for individuals, families and institutions. Major emphasis on the current development in nutrition and dietetics. Reading, discussion and reports and presentations focusing on the professional practice of dietetics.</td>
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<tr>
<td>HUSC 5363</td>
<td>Dietetic Seminar II: 3 semester hours.</td>
<td></td>
<td>Continuation of Dietetic Seminar I. Study of current research and legislative events in nutrition and dietetics as they relate to the health and wellness of individuals and families.</td>
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<tr>
<td>HUSC 5373</td>
<td>Sex Therapy: 3 semester hours.</td>
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<td>Analysis and treatment of varied factors affecting sexual functioning among men and women with an emphasis on marital and family dynamics. Emphasis also given to male and female dysfunctional behavior and psychological dynamics.</td>
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<tr>
<td>HUSC 5393</td>
<td>Family Communication: 3 semester hours.</td>
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<td>An examination and application of various communication theories, patterns and techniques. Analysis of verbal and non-verbal communication patterns within the family are examined in family settings.</td>
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<tr>
<td>HUSC 5523</td>
<td>Marriage and Family Therapy: 3 semester hours.</td>
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<td>Issues, practices and principles of marriage and family therapeutic strategies and techniques. Analysis of strategies and application of techniques in simulated situations required.</td>
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</tbody>
</table>
HUSC 5533 Family Theory and Issues: 3 semester hours.
A comprehensive review of theoretical-conceptual frameworks and research in family studies. Role of theory and research in the interdisciplinary study of individual and family behavior throughout the life cycle.

HUSC 5543 Theories of Child Development: 3 semester hours.
A study of the developmental characteristics of the child from birth to age 20. Analysis of major theories and research with emphasis on interpretation and application of research findings to programs for children and parenting education.

HUSC 5553 Human Development: 3 semester hours.
Study of multiple psycho biosocial characteristics of human development and behavior throughout the lifespan. Examination, evaluation and interpretation of developmental theories and current issues and trends.

HUSC 5563 Marriage and Family Therapy Practicum I: 3 semester hours.
Supervised clinical practicum in marriage and family therapy. Therapeutic sessions with a variety of client issues and the utilization of major therapeutic techniques required. 100 clock hours of supervised field placement required.
Prerequisites: HUSC 5393 and HUSC 5533 and HUSC 5543 and HUSC 5553.

HUSC 5573 Theories of Personality: 3 semester hours.
Review and study of major psychological personality theories and theorists of personality from a historical perspective. Principles, constructs, assumptions, and concepts that describe and predict individual behavior, affect and cognition.

HUSC 5583 Mental Health and Psychopathology: 3 semester hours.
Exploration of healthy personality and functional coping in personal/social context. Review and study of various models of psychopathology including DSM and organic disease in the mental health setting. Roles and characteristics of the therapist in the supervision of trainees in varied clinical settings.

HUSC 5593 Clinical Supervision: 3 semester hours.
Study and application of marriage and family therapy supervisory functions as they relate to trainees under clinical supervision. The process of supervision including roles, characteristics, and models are examined in varied clinical settings.

HUSC 5613 Victimization and Crisis Management: 3 semester hours.
This course explores forms of victimization and crisis management in a clinical setting, with an emphasis on demonstrating diagnostic competence, treatment plan development, and effective and appropriate therapeutic techniques.

HUSC 5623 Counseling Diverse Populations: 3 semester hours.
An experiential course exploring areas of cultural diversity relevant to gender, ethnicity, sexual identity, and other diversities in a therapeutic practice, with an emphasis on developing cultural competence, sensitivity and awareness to diversity. Other dimensions of diversity will be covered.

HUSC 5633 Clinical Assessment: 3 semester hours.
Course provides fundamental assessment principles focused on test and non-test appraisal instruments and development of diagnostic skills. Course includes selection, execution and interpretation of instruments appropriate for individual, couple, and family appraisal. Clinical documentation skills are developed.

HUSC 5683 Family Ethics and Issues: 3 semester hours.
Critical review of current literature on family ethics: principle problems of confidentiality, therapist and client relationships; special consideration given to state and federal law.

HUSC 5693 Thesis: 3 semester hours.
Independent and original research leading to an acceptable master's thesis prospectus prepared under the direction of a faculty thesis committee and must be orally defended and approved by all members of the faculty thesis committee before credit is recorded. The student must be registered for Thesis until satisfactorily completed.
Prerequisites: HUSC 5393 and HUSC 5533 and HUSC 5543 and HUSC 5553.

HUSC 5713 Group Therapy: 3 semester hours.
Comprehensive study of methods, processes and strategies utilized in group therapy with individuals throughout the life span. Focus on the roles of client and therapist within varied settings for practical application of group therapy approaches.

HUSC 5723 Family Financial Counseling: 3 semester hours.
Identification, review, and analysis of techniques and strategies to assist individuals and families of varied socioeconomic levels in financial decision making and planning. Special attention to debt and risk management and retirement and estate planning. Survey and analysis of consumer financial counseling services. Analysis of case and research studies and the written presentation of a research report and/or educational training manual required.

HUSC 5733 Special Topics: 3 semester hours.
Directed individual study of issues affecting implementation of knowledge and skills in human sciences disciplinary specializations. Topical areas may include, but are not limited to: individual and family development; housing studies; family/consumer resource management; family and community studies; food and nutrition studies; adult development; clothing/apparel and textile studies; family and consumer sciences education; and individual and family and other related therapeutic services. Victims and Victimization. An exploration into the dynamics of the victimization process and services available for victims. Focusing on the expected results of experiencing traumas of nature and man, including the characteristics of victims and offenders of criminal acts.
HUSC 5743 Addiction and Family Intervention: 3 semester hours.
Analysis of the psychodynamics of addictions as they relate to individual, family and community from a family systems perspective. Comparison of major theories and treatment modalities as viewed from ethical, multicultural and legal perspectives.

HUSC 5753 Individual and Clinical Psychotherapy: 3 semester hours.
Study and utilization of major therapeutic models in the diagnosis and treatment of cognitive, emotional, moral, social, developmental and mental disorders in the individual. Emphasis on diagnosis, prescriptive treatment, and referral of individuals from varied human and environmental systems.

HUSC 5763 Nutrition and Wellness: 3 semester hours.
Study of nutrition principles and practices that promote the general health and wellness of individuals in a multicultural society. Review of current nutritional research studies and the written presentation of a research report required. Open to senior level students by permission.

HUSC 5993 Independent Study: 3 semester hours.
Readings, research, and/ or field placement focusing on pre-selected issues.

HUSC 5996 Independent Study: 1-6 semester hour.
Readings, research, and/ or field placement focusing on pre-selected issues.

Humanities (HUMA)

Courses

HUMA 1303 Introduction to Humanities: 3 semester hours.
An interdisciplinary, multi-perspective assessment of cultural, political, philosophical, and aesthetic factors critical to the formulation of values and the historical development of the individual and of society. A special emphasis will be placed on culture, art film, theater, religion, and literature.

HUMA 1403 Survey of Mexican-American Culture: 3 semester hours.
A survey course in Mexican-American culture, including analysis of literature, theater, film and music.
Prerequisites: ENGL 1123.

Independent Study (FLLT)

Courses

FLLT 3993 Independent Study: 1-3 semester hour.
Readings, Research, and/or field work on selected topics at the 3000 level.
Prerequisites: SPAN 2023 or CHIN 2023 or ARAB 2023.

FLLT 4993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

Juvenile Forensic Psyc (JPSY)

Courses

JPSY 5113 Psychology and the Juvenile Law: 3 semester hours.
Reviews the various areas, and ways, in which psychology interacts with the law and, in particular, the juvenile justice system. Explores topics such as psychological and psychiatric testimony, civil commitment, the rights of mental patients competency to stand trial, the insanity defense, the antisocial personality; trial child custody disputes and determinations, the psychology of the courtroom, and legal rules and regulations governing the practice of psychology. Considers the utility and the limitations of psychological expertise in relation to the legal system.

JPSY 5123 Psychology of Crime and Delinquency: 3 semester hours.
Focuses on the major psychological theories of criminal and aggressive behavior as they apply to juvenile delinquency. Viewpoints from cognitive, psychodynamic, psychoanalytic, behavioral, social learning, descriptive, and development psychologies are discussed and compared with current psycho-diagnostic classification systems. Case examples are used to illustrate the various theories.

JPSY 5223 Substance Abuse: 3 semester hours.
Provides a critical examination of various policy responses to the “Drug Program” in the United States based upon a review of selected empirical and theoretical studies. Includes an overview of drug usage by youth and adults and interrelationships between drug usage and juvenile crime.

JPSY 5233 Violence and Aggression: 3 semester hours.
Critical evaluation and examination of violence and aggression, their origins and determinants, and their impact on the individual and society. Application to the field of forensic psychology will be emphasized through the liberal use of clinical and research material.

JPSY 5253 Domestic and Family Violence: 3 semester hours.
Addresses types of family violence by examining the extent of the problem, factors contributing to violence, and the consequences of family violence upon the individual, family, community, and society. Emphasis is placed on prevention techniques, non-violent conflict resolution strategies, and programs and services for training and intervention.
JPSY 5263 Psychology and Treatment of the Juvenile Offender: 3 semester hours.
Addresses the psychological factors leading to the causes, assessment, classification, and treatment of juvenile delinquency. Examines both psychodynamic and developmental approaches, emphasizing neurotic, constitutional and psychopathological factors contributing to delinquency. Reviews the major psychological treatment approaches, with relevant case studies presented for illustrative detail. Analyzes legal and institutional responses to juvenile crime from the perspective of learning theory and developmental psychology. Discusses the role of the psychologist in the juvenile justice system.

JPSY 5413 Behavior Modification and Learning Theory: 3 semester hours.
Examines various psychological learning theories. Addresses principles of behavior modification, operationalizing and assessing behavior, specific behavior therapy techniques, the design and empirical evaluation of behavior change programs, and the application of behavior therapy to treat clinical disorders in youth.

JPSY 5423 Conflict Mediation/Resolution: 3 semester hours.
Examines the nature and uses of mediation as a conflict resolution method while taking into consideration the adversarial legal system. The course expands upon the variety of dispute resolution methods applicable to settings in families, neighborhoods, classrooms and juvenile justice agencies.

JPSY 5433 Counseling: 3 semester hours.
An-in-depth evaluation of counseling as it is applied in the juvenile justice and juvenile correction settings. Emphasizes a psychosocial approach to the study of behavior with priority given to immediacy. Explores various treatment models, interviewing, interpersonal communication, and crisis intervention.

JPSY 5443 Group Dynamics and Group Treatment: 3 semester hours.
Facilitates the understanding of the dynamics of small groups and larger organizations, emphasizing groups formed for the purpose of psychotherapy and rehabilitation of offenders, as well as the group dynamics of institutions designed to work with delinquent populations. Topics include leadership, role specialization, group formation and development, composition and goals, group violence, group resistance to change, and those factors that facilitate positive growth within groups.

JPSY 5453 Childhood Psychopathology: 3 semester hours.
A focus on the psychological treatment and prevention of select examples of childhood psychopathology. Emphasis will be placed on those disorders that result in contact with the criminal justice system. Child disorders will be selected from among the following diagnostic categories; conduct disorders, attention deficit disorders, borderline, and schizophrenic disorders. Emphasis will be placed on children who grow up under unusually stressful conditions or experience forms of serious psychological trauma early in life.

JPSY 5523 Introduction to Neuropsychology: 3 semester hours.
Surveys the field of neuropsychology, including its relevant underpinnings, its place within traditional and forensic settings, and practical applications in the areas of assessment and rehabilitation of brain injury. This introduction examines brain-behavior correlates, psychological tests employed in the evaluation of nervous system trauma, and the common syndromes affiliated with such injury.

JPSY 5533 Social Psychology and the Legal System: 3 semester hours.
Applies social psychological knowledge to the juvenile justice system. Places special focus on topics such as social psychology of justice institutions, environmental psychology, socialization into roles and identity, collective behavior, research on juries, attitude formation and change, and criminal identification.

JPSY 5763 Developmental Psychology: 3 semester hours.
Critical analyses of psychological development throughout the life span. Both cognitive and personality development will be considered from various theoretical perspectives as well as from empirical findings. Particular attention will be paid to the development of aggression in various states.

JPSY 5773 Psychology Seminar in Selected Topics: 3 semester hours.
Provides an opportunity for exploration of areas of forensic psychology not covered in other courses. The instructor, who may use projects and/or research articles, chooses topics.

JPSY 5783 Ethics: 3 semester hours.
The analytical and nonnative inquiry into the philosophical foundations of decisions. Emphasis is placed on understanding dilemmas faced by juvenile justice professionals.

JPSY 5843 Personality Assessment I: 3 semester hours.
Intelligence and Cognition. Provides practical experience in the evaluation of cognitive and intellectual functioning in children, adolescents, and adults. Focuses on the administration, scoring and interpretation of instruments such as the W AIS-R, the WISC-R, the WPPSI, and the Stanford Binet. Discusses general issues such as the nature of human intelligence and its measurement with explicit linkage to issues in forensic psychology. Required of externship option.

JPSY 5853 Personality Assessment II: 3 semester hours.
Objective Personality Assessment. Provides advanced experience in the administration and interpretation of objective personality tests such as the MMPI, MCMI, and CPI. Surveys the literature regarding the development and validity of objective measures of personality. Forensic applications of objective personality measures are discussed.

JPSY 5863 Clinical Interviewing: 3 semester hours.
Centers on the clinical interview as a means of gathering relevant life data, defining problems, and resolving conflicts. Surveys the theory and use of the interview, particularly as related to various counseling theories.
**JPSY 5943 Research Methods: 3 semester hours.**
Includes defining and specifying research problems; developing and testing hypotheses; the logic of causal inference; learning to use the variety of research designs; sampling procedures; the collection, processing, and storing of research data, and the ethics of research.

**JPSY 5963 Applied Statistical Methods and Computing: 3 semester hours.**
A study of descriptive and inferential statistics, measures of central tendency and variability, estimation, hypothesis testing, analysis of variance, simple and multiple regressions and nonparametric methods. Students learn the use and value of each statistic while using SPSS as a problem-solving tool.

**JPSY 5973 Field Work in Psychology: 3 semester hours.**
Provides supervised experience assisting psychologists in the assessment, management, and treatment of patients. Students work in an applied institutional setting, such as a juvenile facility, special treatment clinic, hospital, or rehabilitation setting. Training includes interviewing, taking case histories, observations, and staff and case conferences. This field work course provides supervision and experience with emotionally disturbed pre-delinquent and delinquent children in institutional, school, and community settings. Develops skills in evaluation and treatment of such youths. Field work training is supplemented by conferences with a faculty advisor.
Prerequisites: JPSY 5853.

**JPSY 5983 Thesis: 3 semester hours.**
Independent and original research leading to an acceptable master's thesis. Required of thesis option.

**Juvenile Justice (JJUS)**

**Courses**

**JJUS 5113 Foundations of Criminal Justice: 3 semester hours.**
An in-depth examination of the history and origin of the American criminal justice system as it relates to contemporary issues in the United States.

**JJUS 5123 Foundations of Juvenile Justice: 3 semester hours.**
An examination of the juvenile justice system: History, structure, and interrelationships among law enforcement, juvenile and adult courts, and juvenile corrections. Includes an exploration of federal, state, county, and local laws and programs; emphasizes case and statutory law, constitutional procedures, and the philosophy of parens patriae. Required of all MSJJ students.

**JJUS 5223 Substance Abuse: 3 semester hours.**
Provides a critical examination of various policy responses to the “drug problem” in the United States based upon a review of selected empirical and theoretical studies. Includes an overview of drug usage by youth and adults and the relationship between drug usage and juvenile crime.

**JJUS 5243 Community Building and Organizing: 3 semester hours.**
Includes an understanding of theories, methods of analysis, and techniques of intervention employed in pursuing community change. By studying juvenile justice agencies, child helping programs and organizations in the community, a special emphasis is placed on juvenile crime prevention. Techniques for the empowerment of people, problem solving, community building, discovering resources within the community and issues of volunteering are addressed.

**JJUS 5253 Domestic and Family Violence: 3 semester hours.**
Addresses types of family violence by examining the extent of the problem, factors contributing to violence, and the consequences of family violence upon the individual, family, community, and society. Emphasis is placed on prevention techniques, non-violent conflict resolution strategies, and programs and services for training and interventions.

**JJUS 5263 Victimization: 3 semester hours.**
This course examines victimization through a review of the history, theoretical explanations, and consequences of maltreatment and victimization. Throughout the course the risk factors, types, consequences as well as responses to maltreatment and victimization will be examined.

**JJUS 5433 Correctional Programming: 3 semester hours.**
Reviews the broad range of correctional programming options in the field of juvenile justice. Presents the theoretical foundations and empirical research that illuminates the most effective correctional programming of reducing juvenile delinquency and offending recidivism.

**JJUS 5443 Alternatives to Incarceration: 3 semester hours.**
A study of descriptive and inferential statistics, measures of central tendency and variability, estimation, hypothesis testing, analysis of variance, simple and multiple regression and nonparametric methods. Students learn the use and value of each statistical technique.
Prerequisites: JJUS 5123 and JJUS 5763 and JJUS 5943.

**JJUS 5453 Law Enforcement and Juvenile Offenders: 3 semester hours.**
This course examines multicultural issues in America and the relationship between juveniles and law enforcement. It broadly focuses on issues that relates law enforcement bias racial profiling.

**JJUS 5523 Management of Juvenile Justice Organizations: 3 semester hours.**
An examination of management and leadership principles as they apply to juvenile justice organizations and agencies. A special focus is placed on the study of government and nonprofit agencies.

**JJUS 5763 Theories of Delinquency: 3 semester hours.**
An in-depth analysis of selected theories of crime causation. Readings will include theories chosen from the sociological, economic, psychological, and biological literature. Required of all MSJJ students.
JJUS 5773 Courts and Youth Offenders: 3 semester hours.
This course is an examination of juvenile law and court processes relevant to youth offenders. A special focus is placed on Texas and U.S. Supreme Court cases.

JJUS 5783 Ethics: 3 semester hours.
The analytical and normative inquiry into the philosophical foundations of decisions. Emphasis is placed on understanding dilemmas faced by juvenile justice professionals.

JJUS 5913 Special Topics in Juvenile Justice: 3 semester hours.
A seminar designed to allow flexibility in master's student degree plans and to promote awareness and understanding of issues in Juvenile Justice as these develop.

JJUS 5943 Research Methods: 3 semester hours.
Includes defining and specifying research problems; developing and testing hypotheses; the logic of causal interference; learning to use the variety of research designs; sampling procedures; the collection, processing; and storing of research data; and the ethics of research.
Prerequisites: JJUS 5123 and JJUS 5763.

JJUS 5963 Applied Statistical Methods: 3 semester hours.
A study of descriptive and inferential statistics, measures of central tendency and variability, estimation, hypothesis testing, analysis of variance, simple and multiple regression and nonparametric methods. Students learn the use and value of each statistical technique.
Prerequisites: JJUS 5123 and JJUS 5763 and JJUS 5943.

JJUS 5973 Policy Analysis and Program Evaluation: 3 semester hours.
Examines theories and methods of policy analysis and program evaluation relevant to juvenile justice agencies. Identifies the complex effects of policy change as well as techniques for developing a continuous capacity for program assessment in these agencies.

JJUS 5986 Thesis: 6 semester hours.
Independent and original research leading to an acceptable master's thesis.

JJUS 7113 Juv Just Issu Pract: 3 semester hours.
Includes the history of juvenile justice, an overview of juvenile justice agencies and process, and an introduction to issues and trends in the field of juvenile justice. Introduces major questions and problems within the field of juvenile justice and juvenile crime prevention.

JJUS 7387 Advanced Seminar in Crime and Delinquency Theory: 3 semester hours.
Emphasizes analytical, critical evaluation of theory, particularly contemporary versions. Assumes that the student is knowledgeable of each of the major arguments for the causes and correlates of crime. Theory development, theory integration and techniques of theory construction will be examined.
Prerequisites: JJUS 7377.

JJUS 7394 Advanced Research Methods I: 3 semester hours.
Examines research designs most useful to juvenile justice problems. The primary focus is on quasi-experimental and survey methodologies, with discussion of data collection methods and construction of questionnaires, as well as validity and reliability.
Prerequisites: JJUS 5394.

JJUS 7633 Comparative Juvenile Justice Systems:A Cross Cultural Perspective: 3 semester hours.
The course presents comparative perspective juvenile justice systems in different countries, with special emphasis on legal traditions and processing of juveniles by police, courts, and correctional systems.

JJUS 7643 Management and Administration: 3 semester hours.
Examination of management and administrative thought and practice as these relate to public agencies and private organizations of juvenile justice and youth and child service.

JJUS 7651 Seminar in Professional Development: 1 semester hour.
One hour workshops intended to provide Ph.D. students with the key skills for engaging in professional activities in becoming successful professionals. The primary focus is on the presentation of topics and strategies for a successful career in higher education, establishing personal professional goals and meeting the demands of the profession (teaching, service and research).

JJUS 7653 Seminar on Juvenile Corrections: 3 semester hours.
Examination of juvenile corrections in Texas and the nation, including the Texas Youth Commission, the Texas Juvenile Probation Commission, county probation departments, juvenile parole, and private agencies. Discusses historical and national juvenile correctional trends.

JJUS 7663 Drugs, Youth and Society: 3 semester hours.
This course will provide a critical examination of the problem and various policy responses to the drug problem in the U.S. based on a review of selected empirical and theoretical studies. This course will provide a critical understanding of issues and problems related to substance use and abuse and its control as these relate to youth. A different topic will be discussed each week providing the student an opportunity to critically analyze the problem and policy responses.

JJUS 7673 The Juvenile Offender and Youth Gangs: 3 semester hours.
Explores the nature and extent of juvenile crime. Also considers the socialization of children, the creation of childhood and crime as social constructs, and the etiology of juvenile offending.

JJUS 7693 Qualitative Methods in Social Sciences: 3 semester hours.
Familiarizes students with the nature and utility of qualitative fieldwork in various areas of criminological research, emphasizing areas of juvenile justice.
JJUS 7713 Special Topics in Juvenile Justice: 3 semester hours.
A seminar designed to allow flexibility in doctoral student degree plans and to promote awareness and understanding of issues in Juvenile justice as these develop.

JJUS 7743 Race, Ethnicity, Gender and Juvenile Justice: 3 semester hours.
This seminar provides a comprehensive examination of race and gender in the juvenile justice system. Theoretical perspectives and empirical research form the basis of the seminar. The course includes an examination of the intersection of gender and race and the underlying historical, social, economic, and cultural conditions that impact women and racial/ethnic minorities within the juvenile justice system.

JJUS 7763 Seminar on Juvenile Processing by Police and Courts: 3 semester hours.
Considers the processing of juvenile offenders by the juvenile justice system, with a special emphasis upon the juvenile offender's contacts with police officials and with the criminal courts. Compares and contrasts the processing of accused juveniles with the processing of accused adults.

JJUS 7783 Legal Aspects of Juvenile Justice: 3 semester hours.
Includes a study of the legal issues which commonly face administrators, managers, and employees of the juvenile justice system. Delves into public employment law, civil rights laws, and juvenile laws relating to the efficient functioning of agencies, and protections from lawsuits. Considers federal law and U. S. Supreme Court decisions relating to the legal rights of children as well as to the functioning of the juvenile justice system. Covers substantive and procedural issues relating to juvenile crime and delinquency. Compares and contrasts legal factors relating to juveniles with those relating to adults.

JJUS 7853 Prevention and Treatment of Crime and Delinquency: 3 semester hours.
Exploration and explanation of the theoretical development of juvenile crime prevention and treatment. The historical growth of juvenile crime prevention and models of juvenile crime control, community action programs, mentoring programs, and technology systems are examples of topics treated.

JJUS 7863 Policy Analysis and Program Evaluation: 3 semester hours.
Explores theories and methods of organizational change with suggested applications to agencies and organizations related to the juvenile justice and criminal justice systems. Identifies methods of developing a continuous capacity for change in juvenile justice and criminal justice agencies. Discusses evaluation methodologies.

JJUS 7873 Advanced Seminar in Crime and Delinquency Theory: 3 semester hours.
Emphasizes analytical, critical evaluation of theory, particularly contemporary versions. Assumes that the student is knowledgeable of each of the major arguments for the causes and correlates of crime. Theory development, theory integration and techniques of theory construction will be examined. Prerequisites: JJUS 7773.

JJUS 7883 Youth Victimization: 3 semester hours.
This seminar provides a comprehensive examination of youth victimization. Theoretical perspectives and empirical research for the basis of the seminar's exploration of emerging issues related to youth victimization and maltreatment. The history, theoretical explanations, risk factors, types of youth victimizations as well as the consequences of maltreatment and victimization will be critically assessed. The course will also include an evaluation of the current responses to youth victimization.

JJUS 7943 Advanced Research Methods I: 3 semester hours.
Examines research designs most useful to juvenile justice problems. The primary focus is on quasi-experimental and survey methodologies, with discussion of data collection methods and construction of questionnaires, as well as validity and reliability. Prerequisites: JJUS 5943.

JJUS 7953 Advanced Research Methods II: 3 semester hours.
Examines research design problems in juvenile justice at an advanced level; use of sophisticated classical research designs and data-gathering techniques; analysis of problems related to sampling theory and procedures; application of mathematical models to problems in research design and analysis; use of techniques permitting causal inferences. Prerequisites: JJUS 7943 and JJUS 7963.

JJUS 7963 Advanced Statistical Techniques I: 3 semester hours.
Discusses nonparametric and parametric statistical techniques including various ordinal tests, multiple regression, logistic regression, discriminate analysis, multivariate analysis of variance, canonical correlation, factor analysis, cluster analysis, and multidimensional scaling. Prerequisites: JJUS 5963.

JJUS 7973 Advanced Statistical Techniques II: 3 semester hours.
Includes a survey of reliability analysis, log linear, and log it log linear analysis, nonlinear, weighted and two stage least-squares regression, profit analysis, time-series and survival analysis, and Cox regression. Prerequisites: JJUS 7963.

JJUS 7993 Independent Study: 1-3 semester hour.
Readings, research and/or field work on selected topics.

JJUS 8913 Dissertation I: 3 semester hours.
Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

JJUS 8923 Dissertation II: 3 semester hours.
Independent and original research leading to an acceptable doctoral dissertation. May be repeated. Prerequisites: JJUS 8913 (may be taken concurrently).
Kinesiology

Courses

**KINE 1011 Swimming I: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1012 Sports Skills I: 2 semester hours.**
Theory and application of fundamental skills in flag and touch football, soccer, wrestling and gymnastics I.

**KINE 1061 Gymnastics: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1081 Golf I: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1082 Fundamentals of Basic Movement: 2 semester hours.**
Theory and practice in movement improvisation, exploration, and rhythmic exercising methods and fundamentals of presenting creative and rhythmic activities to elementary age children.

**KINE 1091 Badminton I: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1101 Basketball and Volleyball I: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1111 Flag and Touch Football I: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1112 Sports Skills II: 2 semester hours.**
Emphasis given to theory and application skills for fundamentals in badminton, bowling, tennis, and racquetball.

**KINE 1121 Conditioning and Self Analysis: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1131 Physical Fitness: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1141 Personal Defense Activities: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1151 Low Organized Games: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1161 Softball, Track and Field I: 1 semester hour.**
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

**KINE 1172 Foundations I: 2 semester hours.**
Areas of concentration will focus on history and philosophy, developmental stages, movement-related experiences and career development in health and kinesiology.
KINE 1181 Soccer and Field Hockey: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1211 Aerobic Activities: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1221 Jogging and Track and Field Activities: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1231 Bowling I: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1241 Racquetball: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1251 Wrestling I: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1271 Cycling: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1272 Foundations II: 2 semester hours.  
Areas of concentration will focus on current health and kinesiology programs, physical fitness and conditioning and self-analysis.

KINE 1281 Tennis I: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1291 Archery I: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1301 Weight Training: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 1303 Foundation to Kinesiology: 3 semester hours.  
Instruction is offered at beginning levels with emphasis on mechanical principles that regulate human movement, how to analyze movement and how to create the efficient movements possible to increase structure of the human body.

KINE 1321 Swimming II: 1 semester hour.  
Instruction is offered at beginning levels of skills with emphasis on the development of total fitness and recreational skills for leisure time. All classes are coeducational. Students may enroll without swimming I as a prerequisite if the student can demonstrate that he/she can swim.

KINE 1401 Restricted Performance Activities: 1 semester hour.  
Adapted to individual need and capacity. Theory and practice of body mechanics and techniques of relaxation; also quiet games, walking, calisthenics, and health films. Written recommendation of a physician is required.

KINE 1411 Restricted Performance Activities: 1 semester hour.  
(Adapted to individual need and capacity) Theory and practice of forming habits for good posture; also table tennis, rope jumping, goal shooting, walking and calisthenics. Written recommendation of a physician is required. 
Prerequisites: KINE 1401.

KINE 2023 First Aid, Safety and CPR: 3 semester hours.  
Certification program (The American Red Cross) for emergency care procedures for illness, injuries and cardiopulmonary resuscitation.

KINE 2031 Gymnastics II: 1 semester hour.  
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2032 Life Saving: 2 semester hours.  
Demonstration and practice in the fundamentals of life saving: opportunity for completion of requirements for the American Red Cross Senior Life Saving Certificate. Must be proficient in five basic strokes (front and back crawls; elementary back, side and breast strokes).
KINE 2041 Badminton and Tennis II: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2043 Coaching Individual and Dual Sports: 3 semester hours.
Designed for majors with intermediate and advanced skills; deals with strategy, rules, and court layouts, with special emphasis on fundamentals and materials for individual and dual sports. Prerequisites: KINE 1091 and KINE 1101 and KINE 1281 and KINE 1291.

KINE 2051 Basketball and Volleyball II: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2052 Theory and Practice of Intramural Sports: 2 semester hours.
Theory and practice in organizing and conducting tournaments, meets, and field days.

KINE 2053 Recreation of the Aged: 3 semester hours.
A study of the nature, scope and significance of leisure and recreation. Emphasis is placed on methods and materials for planning, organizing, and conducting social activities for the aged in a variety of social situations.

KINE 2063 Outdoor Performance Activities: 3 semester hours.
Introduction to outdoor activities with emphasis on principles and purposes; skills and activities for individual and group activities; practices and skills of low and high intensity levels.

KINE 2081 Golf and Archery II: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2091 Swimming III: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2101 Advanced Basketball: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2111 Advanced Volleyball: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 2141 Flag Football and Track II: 1 semester hour.
Designed for the student with intermediate and/or advanced levels of skills; emphasis is on the development of total fitness and recreational skills for leisure time. All classes are coeducational.

KINE 3012 Water Safety Instruction: 2 semester hours.
Swimming and lifesaving skills required for water safety instruction. Opportunity for completion of requirements for the American Red Cross Water Safety Instructor's Certificate. Must have a current Red Cross Senior Life Saving Certificate.

KINE 3023 Applied Anatomy and Kinesiology: 3 semester hours.
A scientific study of the muscles and human movement. Prerequisites: BIOL 1054 and BIOL 1064 and KINE 1082.

KINE 3033 Movement Activities for Elementary Children: 3 semester hours.
Theory of Kinesiology for young children; classroom demonstration and field laboratory assignments. Emphasis is placed on stages of development and gross motor skills. Prerequisites: KINE 1151.

KINE 3053 Theory and Practice of Officiating: 3 semester hours.
Treats the theory and practice of officiating selected sports; emphasis on rules, mechanics, and officiating individual, dual and team sports. Prerequisites: KINE 3063.

KINE 3063 Theory and Practice of Coaching: 3 semester hours.
Theory and strategy of coaching football, basketball, and volleyball. Prerequisites: KINE 1101 and KINE 1111.

KINE 3421 Restricted Performance Activities: 1 semester hour.
(Adapted to individual need and capacity) Theory and practice of physical fitness techniques; also shuffleboard, horse shoes, dance, volleyball, health, and safety films, walking and calisthenics. Written recommendation of a physician is required. Prerequisites: KINE 1411.
KINE 3653 Motor Learning and Control: 3 semester hours.
This course is designed to review basic principles of motor control and motor learning with emphasis on the application of these principles in the neurologic population.

KINE 4033 Measurement and Evaluation: 3 semester hours.
A study of various kinds of tests and test usage in the field of health and kinesiology includes practical experience in the construction and administration of tests and in use of elementary statistics to interpret test scores.
Prerequisites: KINE 1082 and KINE 1172 and BIOL 1054 and BIOL 1064.

KINE 4042 Athletic Injuries and CPR: 2 semester hours.
Theory and practice of prevention and treatment of athletic injuries; laboratory experience in techniques of massaging and bandaging; emergency care procedures for cardiopulmonary resuscitation.

KINE 4053 Special Topics in Health and Kinesiology: 3 semester hours.
Detailed study of selected topic and activities.

KINE 4062 Correctives: 2 semester hours.
A study of the general organization of programs of therapeutic exercise, recreational sports, and aquatic skills for use in correctional procedures; evaluation and classification of exercises; practice in planning and presenting activities for special programs.
Prerequisites: KINE 1082 and KINE 1172 and KINE 2043 and KINE 2063.

KINE 4073 Secondary Kinesiology: 3 semester hours.
Scientific examination of current human movement concepts, emphasis on curricular and evaluative concepts designed to assist the student in selecting, appraising, utilizing and analyzing movement related materials, resources, and instruments.
Prerequisites: KINE 1082 and KINE 1172 and BIOL 1054 and BIOL 1064.

KINE 4083 Administrative Management of Kinesiology: 3 semester hours.
Principles and fundamentals in the organization, administration and supervision of the health, kinesiology, intramural, and athletic programs.
Prerequisites: KINE 1082 and KINE 1172 and BIOL 1054 and BIOL 1064.

KINE 4093 Practicum in Athletic Training: 3 semester hours.
Designed to acquaint the Athletic Trainer Intern, Pre-Physical Therapist, and Sports Certified Specialist with the principles of application for an orthopedic examination of the joints and muscles. A hands-on clinical approach to physical assessment and rehabilitation techniques involving basic theories and principles.

KINE 4196 Internship in Health and Kinesiology: 6 semester hours.
Supervised study and practice in community, recreation, sports, fitness, and rehabilitation centers, hospitals, clinics, and other approved agencies, organizations and institutions.

KINE 4232 Advanced Athletic Injuries: 2 semester hours.
This course provides the student athletic trainer with the knowledge of clinical techniques, rules and regulations governing licensure and certification. Emphasis will be given to application techniques and therapeutic modalities.

KINE 4233 Fitness Program: 3 semester hours.
This course uses health, wellness and fitness assessments to develop healthy lifestyles.

KINE 4431 Restricted Performance Activities: 1 semester hour.
(Adapted to individual need and capacity) Theory and practice of adaptive corrective exercises; archery, badminton, arts and crafts, musical games, calisthenics and isometric exercises. Written recommendation of a physician is required.
Prerequisites: KINE 3421.

KINE 4993 Independent Study: 1-3 semester hour.
Readings, research and/or field work on selected topics.

Management (MGMT)

Courses

MGMT 1013 Introduction to Business: 3 semester hours.
An overview of business operations and the role of business in modern society. Topics of current interest to the business community will be introduced.

MGMT 1163 Quantitative Business Analysis: 3 semester hours.
A practical, hands-on application of mathematical concepts for solving quantitative problems in Business. Mathematical concepts will be reinforced through application of these concepts to solve business related problems in a tutorial setting. Students will learn how to quantitatively model relate business decision variables and analyze these business models to seek appropriate solution.
Prerequisites: MATH 1113 and MATH 1153.
MGMT 2000 Prof Development for Business: 0 semester hours.
This course is mandatory for College of Business students and highlights the internship process and resources available. The course will orient students towards career-related strategic decision-making and help them better understand the role of internships towards future job success. Topics include: accessing and leveraging digital resources for career development, resume writing and analysis, interviewing, on-the-job performance and the assessment process, and career planning.

MGMT 2013 Design Thinking: 3 semester hours.
This course is designed for non-business majors. It provides students with functional knowledge and skills in business that are required for a broad understanding of the field of entrepreneurship. Topics include identifying and managing critical resources, understanding financial and accounting issues, marketing and sales, and the legal environment of business.

MGMT 2203 Leadership and Ethics: 3 semester hours.
Course provides with frameworks to identify, critically analyze, and resolve ethical issues faced in business environment; ensures understanding of how firms incorporate ethics into business strategies. Emphasis on case studies involving significant ethical dilemmas; also, the role of social and personal responsibility in a business setting will be explored.

MGMT 2391 Coop Ed I: 1 semester hour.
Cooperative program in approved private and public business organizations engaged in planning, organizing, activating, and controlling functions in producing and distributing goods and services. Written reports indicative of student's work experience are required.

MGMT 2393 Coop Educ I: 3 semester hours.
Cooperative program in approved private and public business organization engaged in planning, organizing, activating and controlling functions in producing and distributing goods and services. Written reports indicating students' work experience are required.
Prerequisites: MGMT 1013.

MGMT 3013 Business Statistics: 3 semester hours.
Statistical concepts, collection and presentation of data, measures of central tendency and dispersion, index numbers, probability concepts, probability distributions, sampling and linear regression.
Prerequisites: MATH 1153.

MGMT 3023 Introduction to Business Analytics: 3 semester hours.
This course discusses the systematic design, direction, and control of processes that transform inputs into services and products for customers. The course will focus on how processes can be designed and managed to support the strategic objectives of an organization.

MGMT 3103 Principles of Management: 3 semester hours.
Fundamentals of organization and administration. Planning, organizing, directing, coordinating, and controlling business activities. Goal setting; models for thinking about organizations; organizational design; information systems; models for understanding individual behavior; job performance and job satisfaction; motivation and leadership; behavior in work groups and careers in business.
Prerequisites: MGMT 1013.

MGMT 3113 Introduction to Organizational Behavior: 3 semester hours.
Considers elements of several management theories and the implications of individual and group behavior for organizational effectiveness. Topics include perception; learning; personality; group dynamics; norms; inter-group relations; motivation; conflict and change.
Prerequisites: MGMT 3103.

MGMT 3333 Commercializing Innovative Ideas: 3 semester hours.
This course provides students with an opportunity to apply business knowledge and skills through experiential learning. As the capstone course in the Certification in Entrepreneurship program, its emphasis is placed on starting, financing, operating, and growing a small business.
Prerequisites: MGMT 2013.

MGMT 3343 Project Management: 3 semester hours.
Application of management processes to complex interdisciplinary organizational environments through the study of program and project management. Uses typical project management microcomputer software for project planning; resource allocation; project budgeting; and control of project cost, schedule and performance.
Prerequisites: MGMT 3013 and MGMT 3103.

MGMT 3353 Human Resource Management: 3 semester hours.
Systematic approach to human resource utilization. Topics include selection, training, promotion, compensation, labor relations, workplace dysfunctions, management of change and, human resource accounting.
Prerequisites: MGMT 3103.

MGMT 3363 Industrial Relations: 3 semester hours.
A study of the philosophical, strategic, and behavioral aspects of labor-management relations as it relates to organizing, union contract negotiation and administration within the private and public sectors.
Prerequisites: MGMT 3103.

MGMT 3391 Coop Ed II: 1 semester hour.
Cooperative program in approved private and public business organizations engaged in planning, organizing, activating, and, controlling functions in producing and distributing goods and services. Written reports indicative of student's work experience are required.
MGMT 3393 Cooperative Education II: 3 semester hours.
Cooperative program in approved private and public business organizations engaged in planning, organizing, activating and controlling functions in producing and distributing goods and services. Written reports indicating student's work experience are required.
Prerequisites: MGMT 3103.

MGMT 3423 Data Mining Techniques: 3 semester hours.
This course introduces the basic concepts of data mining to discover patterns in massive amounts of data to solve problems, gain scientific inference-based knowledge to make accurate scientific predictions. Using the "R software", students will learn data reduction and summarization techniques to classify and analyze massive data sets.
Prerequisites: MGMT 3023.

MGMT 3400 Professional Development For Business II: 0 semester hours.
The course will provide upper-level students with the skills necessary for successful transition to the post-graduation work environment. Through weekly interactive seminars, students will learn advanced interview techniques, salary negotiating, personal branding with social media, the role of professional certifications, leadership, and other strategies to enhance the development of their careers.
Prerequisites: MGMT 2000.

MGMT 4303 Strategic Management and Business Policy: 3 semester hours.
A capstone course to acquaint the student with strategic management and business policy. Focuses on management of the entire business. Uses the concepts, skills and tools of the entire business curriculum to develop in-depth situational appraisals and specific recommendations regarding strategies and their implementation and control.
Prerequisites: MGMT 3103 and MRKT 3103 and FINA 3103.

MGMT 4313 Business and Society: 3 semester hours.
A survey of the critical current issues in business and their relationship to government and the larger society. Ethical guidelines and principles are examined and the traditional and contemporary views of the business community toward its general environment are surveyed.
Prerequisites: MGMT 3103.

MGMT 4323 Supply Chain Management: 3 semester hours.
Provides students with the basic principles and key issues of supply chain management from a managerial perspective of gaining long term strategic and global competitiveness. Topics covered include managing supplier relationships, inventory management, process management, performance management and global issues in SCM.
Prerequisites: MGMT 3103 and MGMT 3013.

MGMT 4333 Production and Operations Management: 3 semester hours.
Major functions, departmental activities and policies for manufacturing firms and service organizations. Organization for production and analysis of production methods.
Prerequisites: MGMT 3013 and MGMT 3103.

MGMT 4383 Management Seminar: 3 semester hours.
Directed study of selected problems in the area of management which requires a multidisciplinary approach and analysis.

MGMT 4391 Coop Ed Ill: 1 semester hour.
Cooperative program in approved private and public business organizations engaged in planning, organizing, activating, and controlling functions in producing and distributing goods and services. Written reports indicative of student's work experience are required.

MGMT 4393 Cooperative Education III: 3 semester hours.
Cooperative program in approved private and public business organizations engaged in planning, organizing, activating and controlling functions in producing and distributing goods and services. Written reports indicative of student's work experience are required.

MGMT 4413 International Environment of Business: 3 semester hours.
Analyzes the cultural, political, legal, and geographical environments in which international businesses operate as well as various managerial activities appropriate for an international organization. Topics include multinational enterprises, global competition, managing political risks and negotiations, international laws, U.S. trade policies, strategies for US. firms, expatriation and repatriation and challenges for U.S. firms, etc.
Prerequisites: MRKT 3103 and MGMT 3103 and ECON 2113 and ECON 2123.

MGMT 4433 Decision Modeling for Business Analytics: 3 semester hours.
This course focuses on the process of developing analytic models for decision making in the business environment. The topics addressed include optimization and simulation modeling.
Prerequisites: MGMT 3013.

MGMT 4453 Special Topics in Management: 3 semester hours.
Explores and examines contemporary topics of interest in the field of Management. Course could be used to offer a variety of topics that deal with issues of importance in the discipline of management.

MGMT 4993 Independent Study: 1-3 semester hour.
Reading, research, and/or field work on selected topics.
MGMT 5003 Concepts of Management: 3 semester hours.
Examines major concepts, theories, and practices in management. Topics include theories of management, decision-making, organizational structure, human behavior in organizations, and control processes.

MGMT 5103 Organizational Behavior: 3 semester hours.
A study of social science concepts relevant to understanding and predicting human behavior in organizations. Topics include perception, learning, group processes, motivation and leadership, and organizational structure and change.

MGMT 5113 Business Statistics: 3 semester hours.
A study of statistical methodology useful for solving business problems. Topics addressed include probability, inferential statistics, regression analysis, and analysis of variance.

MGMT 5123 Quantitative Analysis: 3 semester hours.
A study of the principles and methods of applied mathematical modeling for managerial decision making. Topics addressed include linear and nonlinear optimization models, simulation, and project management.

MGMT 5323 Strategy and Policy: 3 semester hours.
Examines top management strategy, formulation, implementation, and evaluation. This course is the MBA capstone which synthesizes and integrates material from the various functions of business as it presents itself to organizational strategic managers.
Prerequisites: ACCT 5103 and ECON 5103 and FINA 5103 and MRKT 5303.

MGMT 5343 Human Resource Management: 3 semester hours.
An analysis of the methods and issues pertaining to the recruitment, selection, testing, promotion and remuneration of members of organizations. Covers job design and labor relations concepts.

MGMT 5353 Entrepreneurship and Innovation: 3 semester hours.
Provides an opportunity to experience the entrepreneurial process through team projects, presentations, and feedback. Topics include critical factors for starting a business, evaluating opportunities, entry strategies, creating a marketing plan, financial projections, forms of financing, external resources, legal and tax issues, recordkeeping and systems support.

MGMT 5393 Management Internship: 3 semester hours.
Supervised, full-time training in planning, organizing and controlling organizational functions at For Profit/Non-Profit organizations/government agencies for a regular semester or two consecutive summer semesters.

MGMT 5433 Production and Operations Management: 3 semester hours.
A study of systematic direction and control of the processes that transform inputs into products and services. Topics addressed include strategic decisions, capacity design, location and layout decisions, inventory management, material requirements planning, scheduling, and quality management.

MGMT 5503 Management Information Systems (MISY)

Courses

MISY 1013 Info & Communication in the Digital Age: 3 semester hours.
The course explores living and communicating in a digital world. It includes selection and use of different types of computers, desktop and mobile, and their supported applications; an examination of the advantages and pitfalls of cloud computing and social networking; and projects designed to promote collaborative communication using multimedia and web technology with attention to formal and informal code of conduct.

MISY 2013 Fundamentals of MIS with SAP: 3 semester hours.
Overview of information systems including software and hardware issues, database management, enterprise systems, and organizational and managerial issues of fundamental business processes and functional areas, such as sales, production, accounting etc., and how they interact with an enterprise system; emphasis on hands-on learning using SAP.
Prerequisites: MISY 1013.

MISY 2123 Information Systems Applications: 3 semester hours.
An extension of MISY 1013. Includes case-based problems and management decision-making drills with alternative computer-based solutions structure. Extensive applications of contemporary microcomputer software packages to solve problems in functional areas of business. Recommended as an elective course for non-MISY majors.
Prerequisites: MISY 1013.

MISY 2153 Object-Oriented Programming Applications in Business: 3 semester hours.
This course covers the fundamental concepts of object-oriented programming as they apply to real-world business problems. Emphasis is given on the development of object-oriented program logic and design in solving programming problems in business.
Prerequisites: MISY 2013.
MISY 3323 Networking: 3 semester hours.
Specific topics include the introduction to core network concepts, network standards, physical layer propagation, Ethernet PC network, telephony and various LAN (Local Area Network) technologies, WAN (Wide Area Networks), internet working, wireless networking, network security, and network management.
Prerequisites: MISY 2013.

MISY 3393 Information Systems Internship I: 3 semester hours.
Supervised full-time training in industry, government or other agencies for junior-level information systems majors. Individual conferences, company performance evaluations and written reports required. The duration of the program will be one regular semester or two consecutive summer terms.
Prerequisites: MISY 2013.

MISY 3413 Business Database Applications: 3 semester hours.
The course provides a solid foundation in database concepts and design as they apply in business. It covers principles of conceptual as well as relational designs and includes translation of business requirements into entity relationship diagrams, normalization of tables and advanced SQL to address specific business problems.
Prerequisites: MISY 2013.

MISY 3423 Enterprise Systems Analysis and Design: 3 semester hours.
Methods, techniques, and tools involved in information systems analysis and design and project management in enterprises with exposure to traditional methodologies like systems development life cycle, and alternative methodologies like object-oriented and agile methodologies; hands-on experience of analysis and design on enterprise systems, such as ERP.
Prerequisites: MISY 2013.

MISY 3433 JAVA Applications in Business: 3 semester hours.
The course covers the fundamental concepts of object-oriented programming (OOP) using Java language and emphasizes basic programming skills using hands-on practices. Intensive exploration of Java programming environment.
Prerequisites: MISY 2153.

MISY 4343 Cyber-Security for Electronic Commerce: 3 semester hours.
The course introduces the emerging area of electronic commerce and the security challenges and threats in the electronic commerce environment, and provides an understanding of the next generation state-of-the-art EC security technologies.
Prerequisites: MISY 3323.

MISY 4353 Information Technology Project Management: 3 semester hours.
Concepts, tools and techniques involved in Information Technology (IT) project management are presented. Focus will be on the five phases of project management: Initiating, Planning, Executing, Controlling, and Closing, and the nine project management knowledge areas: Integration Scope, Time, Cost, Quality, Human Resources, Quality, Risk.
Prerequisites: MGMT 3103 and MISY 2013.

MISY 4393 Information Systems Internship II: 3 semester hours.
Supervised full-time training in industry, government or other agencies for senior level information systems majors. Individual conferences, company performance evaluations and written reports required. The duration of the program will be one regular semester or two consecutive summer terms.

MISY 4433 Adv Java Prog: 3 semester hours.
Covers advanced topics of Java programming and emphasizes the hands-on practice of Java applications. Students will be expected to explore Java programming environment intensively and develop adequate Java programming skills particularly in relation to graphical user interface, multimedia, and networking applications.
Prerequisites: MISY 3433.

MISY 4453 Special Topics in MIS: 3 semester hours.
The course provides a forum to bring in current issues in the MIS area such as information security, data mining, mobile/wireless technology and IT project management. Topics may vary from semester to semester and course can be repeated.
Prerequisites: MGMT 3103 and MISY 3323.

MISY 4523 Enterprise Strategic IT Management: 3 semester hours.
Strategic management concepts underlying the implementation of Information Technology (IT) in an enterprise; pertinent IT issues such as analysis of strategic impact of IT, management of IT security and outsourcing; emphasis will be placed on hands-on learning using enterprise systems such as ERP. This course integrates issues covered in other MIS courses.
Prerequisites: MISY 3423 and MGMT 3103.

MISY 4533 Predictive Analytics: 3 semester hours.
The course involves important aspects of decision-making process in business such as business intelligence and data analytics. It would explore relationship discoveries in data as well as prediction of future outcomes using probabilities and trends. Students will be exposed to relevant topics such as business intelligence, data warehousing, big data, data mining, regression analysis, forecasting, and simulation.
Prerequisites: MISY 3413 and MGMT 3013.

MISY 4993 Independent Study: 3 semester hours.
Reading, research, and/or field work on selected topics.
MISY 5103 Management Information Systems: 3 semester hours.
Foundational understanding of IS functions in relation to other business functions; current and emerging technologies; managerial and organizational understanding of IS functions within a networked or virtual organization; introduction to computer application software used by contemporary managers.

MISY 5323 Data Com & Network: 3 semester hours.
Integration of business management with data communications and networking core concepts such as fundamentals of data communication, various networking architectures and design, communication circuits and communication protocols.
Prerequisites: MISY 5103.

MISY 5413 App Database Management: 3 semester hours.
Concepts, tools, and technologies associated with the design, implementation and management of large databases for organizational effectiveness. Emphasis on the application aspect of databases.
Prerequisites: MISY 5103.

MISY 5423 Info Syst Analysis: 3 semester hours.
Focus on project planning, analysis, design, and implementation techniques, with an emphasis on the development of computer systems.
Prerequisites: MISY 5103.

MISY 5533 SP Topics in MISY: 3 semester hours.
The course provides a forum to bring in current issues in the MIS area such as project management, information security, data mining, etc. Topics may vary from semester to semester.
Prerequisites: MISY 5103.

Management for Executives (EMGM)

Courses

EMGM 5103 Data Analysis for Managerial Decision Making: 3 semester hours.
The course provides an in-depth introduction to statistics as applied to managerial problems. The emphasis is on conceptual understanding as well as conducting statistical analyses. Course covers a quantitative approach to decision making. Statistical software will be used throughout the course.

EMGM 5113 Executive Leadership: 3 semester hours.
This course addresses topics such as leadership skills necessary at the executive level, building a personal leadership brand, managing personal reputation and image, the nature of strategic thinking, how decision-making changes at different leadership levels within an organization, personal and organizational barriers to execution and implementation, and understanding one’s style of relating to and leading others.

EMGM 5303 Executive Topics in Strategy and Policy: 3 semester hours.
The course is intended to provide a broad exposure to strategic management theories and various concepts and developments in this area. It will develop skills necessary to analyze a problem situation, problem identification, strategy formulation, and strategy implementation and evaluation. The process will also focus on the leader’s ability to manage the process of strategy formulation and implementation.

EMGM 5403 Operations and Supply Chain Management: 3 semester hours.
This course discusses the systematic design, direction, and control of processes that transform inputs into services and products for customers. The course will focus on how processes can be designed and managed to support the strategic objectives of an organization.

EMGM 5503 Business Ethics and Law: 3 semester hours.
Understand the underlying principles of ethics, related law, integrity, and objectivity for business executives, the audit committee, and external auditors. In addition, the student should be aware of the importance to observe the ethical rules of the professional and regulatory bodies.

EMGM 5903 Capstone Project: 3 semester hours.
This course will provide an opportunity to bring the learning from the EMBA program to bear on a final real world project. The project topic must be original and have bearing to a real world problem.

Managerial Communication for Executives (EMCO)

Courses

EMCO 5203 Executive Managerial Communication: 3 semester hours.
Management communication as the downward, horizontal, and upward transfer of information and exchange of meaning, through formal and informal channels. Also, includes the art of negotiation and identifies rhetorical strategies and guidelines for analyzing and resolving stakeholder conflicts.
Marketing (MRKT)

Courses

**MRKT 3103 Principles of Marketing: 3 semester hours.**
A study of the importance of marketing in the American economy. An intensive examination of basic marketing variables (product, place, promotion and price) from the viewpoint of management.
Prerequisites: MGMT 1013.

**MRKT 3113 Sports, Entertainment, and Event Marketing: 3 semester hours.**
Course provides understanding of how marketing concepts can be applied and adapted to sports, entertainment and event marketing. Topics covered include the distinct nature of sports, entertainment and event products and services, sponsorships, endorsements, licensing, venue naming, planning, promoting and pricing.
Prerequisites: MRKT 3103.

**MRKT 3113 Retail Management: 3 semester hours.**
The nature and functions of retail outlets in the marketing structure are studied. Managerial policies and methods of providing goods and services to the ultimate consumer are also studied.
Prerequisites: MRKT 3103.

**MRKT 3323 Salesmanship: 3 semester hours.**
Concepts of effective selling including selection of sales staff and their training, management and evaluation, are studied. The basic steps in the selling process are stressed.
Prerequisites: MRKT 3103.

**MRKT 3333 Consumer Behavior: 3 semester hours.**
An analysis of the processes underlying the purchasing behavior of consumers and the major influences on consumer behavior, including culture, attitudes, and reference groups.
Prerequisites: MRKT 3103 and PSYC 1113.

**MRKT 3393 Cooperative Education II: 3 semester hours.**
Cooperative program in approved private/public business organizations engaged in planning, organizing, activating and controlling functions in marketing goods, services and ideas. Written reports indicating students work experience are required.
Prerequisites: MRKT 3103.

**MRKT 4333 Advertising: 3 semester hours.**
Fundamentals of the communication process in mass promotion (planning, creating the message, media selection, implementation, and measuring the results).
Prerequisites: MRKT 3103.

**MRKT 4343 Marketing Research: 3 semester hours.**
Application of the scientific method to the process of obtaining information for structuring marketing strategies and tactics. Emphasis is placed on the role of research in the solution of marketing problems.
Prerequisites: MRKT 3103 and MGMT 3013.

**MRKT 4353 International Marketing: 3 semester hours.**
International marketing opportunities and principles. Marketing tools as a means of adapting the individual domestic business line and its marketing methods to the international environment.
Prerequisites: MRKT 3103.

**MRKT 4373 Sales Management: 3 semester hours.**
A study of sales management through the use of analytical and problem-solving skills. Managerial responsibilities such as sales force production, sales planning, training of sales staff, sales compensation, establishing territories and controls are covered.
Prerequisites: MRKT 3103.

**MRKT 4393 Marketing Communications: 3 semester hours.**
An examination of the major elements of promotion including advertising, personal selling, publicity, sales promotion, and the development of an integrated marketing communications plan.
Prerequisites: MRKT 3103 and MRKT 3333.

**MRKT 4413 Distribution Management: 3 semester hours.**
An analysis of the policies, decisions and planning related to the distribution of goods and services for consumer and industrial sectors. Covers concepts related to physical distribution and marketing channels.
Prerequisites: MRKT 3103.

**MRKT 4423 Fundamentals of E-Marketing: 3 semester hours.**
Focuses on key marketing issues in E-commerce via the Internet. Explores concepts of customer relationship management, online communities, and web brand development.
Prerequisites: MRKT 3103 and MISY 2013.
**MRKT 4453 Special Topics in Marketing: 3 semester hours.**
Explores and examines contemporary topics of interest in the field of Marketing. Course could be used to offer a variety of topics that deal with issues of importance in the discipline of Marketing.

**MRKT 4493 Marketing Strategy and Analysis: 3 semester hours.**
Capstone course for marketing majors that should be taken in the last semester. Highly applications oriented. The course utilizes projects and problems designed to develop marketing strategies. Emphasizes the dynamics of three major foci: customer, competition, and capabilities of the organization. Prerequisites: MRKT 3103 and MRKT 3333.

**MRKT 4593 Cooperative Education III: 3 semester hours.**
Cooperative program in approved private/public business organizations engaged in planning, organizing, activating and controlling functions in marketing goods, services and ideas. Written reports indicating students’ work experience are required. Prerequisites: MRKT 3103.

**MRKT 4993 Independent Study: 3 semester hours.**
Readings, research and/or field work on selected topics.

**MRKT 5003 Concepts of Marketing: 3 semester hours.**
Surveys the different aspects of the marketing function, including the use of marketing research to understand consumer and industrial markets and the development of the marketing strategy elements of product, distribution, price, and promotion.

**MRKT 5303 Marketing Management: 3 semester hours.**
Application course dealing primarily with strategic marketing planning; specifically, the formulation of marketing strategies, evaluation of alternatives, and implementation of a marketing program. Examines selection of target markets, analysis of market data, and the development of a marketing mix to meet target market needs.

**MRKT 5313 International Marketing: 3 semester hours.**
Analysis of the economic, political, social, and cultural environments of international business and the development of product, price, channels of distribution, and promotion strategies for international markets. Prerequisites: MRKT 5003.

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**Marketing for Executives (EMRK)**

**Courses**

**EMRK 5433 Marketing in a Global Environment: 3 semester hours.**
Topics related to the marketing function and how it relates to value creation, strategic corporate management, and marketing decisions in a global environment. It includes organizational market orientation and dynamics, advertising and promotion, managing customer relationships, financial value, within the scope of both domestic and international markets.

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**Mathematics (MATH)**

**Courses**

**MATH 1103 Contemporary College Algebra: 3 semester hours.**
Data Collection, Variable Representation, Function, Linear Function, Prediction, Systems of linear equations, Linear Programming, Applications, Modeling across the discipline, Quadratic and other fundamental functions, Probability, Sampling Spaces, Expectations, Models, Consumer Mathematics, Simple and compound interests, finance charges, new balance and monthly payments, annual percentage rate (APR), annuity and amortization. Cannot receive credit for both MATH 1103 and MATH 1113. This course is designed for Non-Stem (Science, Technology, Engineering and Mathematics Majors. (Prerequisite: Student must have TSIA math score of 350. In the case the student has a TSIA math score of 347-349, he/she must enroll in MATH 0300, as corequisite.

**MATH 1113 College Algebra: 3 semester hours.**
Linear and quadratic equations, inequalities, functions (quadratic, polynomials, and rational) and graphs of functions, exponential and logarithmic functions, systems of linear equations. Cannot receive credit for both MATH 1103 and MATH 1113. **(MATH 1314)** Transfer equivalent from Texas Community/Junior Colleges. (Prerequisite: Student must have TSIA math score of 350. In the case the student has a TSIA math score of 347-349, he/she must enroll in MATH 0300, as corequisite.

**MATH 1115 College Algebra and Trigonometry: 5 semester hours.**
A basic course in mathematics for students needing additional pre-calculus skills, including college algebra and trigonometry. Topics included are linear, quadratic, and higher degree polynomial functions and identities, determinants and systems of linear equations, inverse trigonometric functions, and trigonometric equations.

**MATH 1123 Trigonometry: 3 semester hours.**
Trigonometric functions, radian, logarithms, functions of composite angles, and identities; and trigonometric equations. Prerequisites: MATH 1113.
MATH 1124 Calculus with Analytic Geometry I: 4 semester hours.
Functions and graphs, limits and continuity, derivatives of functions, Mean Value Theorem, applications of derivatives. Fundamental Theorem of Calculus and applications of integrals.
Prerequisites: (MATH 1113 and MATH 1123) or MATH 1115.

MATH 1153 Finite Mathematics: 3 semester hours.
Linear equations and applications, linear forms and system of equations, matrix algebra and applications, linear programming (linear and simplex method), probability and applications, statistics.
Prerequisites: MATH 1113 or MATH 1103.

MATH 2003 Elementary Statistics: 3 semester hours.
An introduction to the concepts and methods of statistics, topics including probability, random variables, binomial and normal distributions, random sampling, statistical inference, estimation, testing hypothesis, linear regressions and correlation, problem solving, chi-square test and categorical data, and analysis of variance.
Prerequisites: MATH 1113 or MATH 1103 or MATH 1115.

MATH 2024 Calculus with Analytic Geometry II: 4 semester hours.
Applications of integrals, integration techniques, inverse functions, indeterminate forms, improper integrals, parametric equations, polar coordinates, infinite series, power series, Taylor series.
Prerequisites: MATH 1124.

MATH 2043 Differential Equations: 3 semester hours.
Ordinary differential equations with emphasis on first-order linear and higher order ordinary differential equations with constant coefficients and some non-constant coefficients. Applications.
Prerequisites: MATH 2024.

MATH 2053 Discrete Mathematics: 3 semester hours.
Designed to provide a bridge between computational mathematics and theoretical mathematics. Topics include induction and recursion, combinatorics, graph theory functions, proofs and logic.
Prerequisites: MATH 1124.

MATH 2153 Calculus-Business, Life and Social Sciences: 3 semester hours.
Derivatives, Curving, Sketching, and optimization techniques for differentiation. Logarithms and Exponential Functions with applications, Integral Techniques and application of integrals, Techniques and application of integrals, Multivariate Calculus.
Prerequisites: MATH 1153.

MATH 2163 Structure of Number System: 3 semester hours.
A logical approach to elementary mathematics, with emphasis on the powers and techniques of the axiomatic approach in mathematics. Topics include sets, logic, number theory, equivalence relations and mathematical proofs in developing the characteristics of number systems.
Prerequisites: MATH 1113 or MATH 1103.

MATH 2183 Informal Geometry: 3 semester hours.
A brief development of finite geometric systems from an advanced standpoint, with attention given to intuition and didactics. Topics include deductive reasoning, metric and non-metric geometry, transformational geometry, topological notions, graphs, and networks.
Prerequisites: MATH 1113 or MATH 1103.

MATH 3003 Mathematics in Elementary Schools: 3 semester hours.
A conceptual approach to introducing mathematics concepts and the integrating of content, pedagogy and assessment which include treatments of the nature of selective pre-algebra and discrete topics and the use of EC-4/4-8 TEKS Standards V-VI.
Prerequisites: MATH 2163.

MATH 3013 Modern Algebra: 3 semester hours.
Number theory, groups, rings, integral domains, and fields.
Prerequisites: MATH 2053.

MATH 3014 Calculus III: 4 semester hours.
Calculus of functions of several variables, calculus of vector valued functions, partial differentiation, multiple integrals.
Prerequisites: MATH 2024.

MATH 3023 Probability and Statistics: 3 semester hours.
Counting problems, probability theory infinite sample spaces, random numbers and their usage, random variables, expectations, means, variances, binomial and normal distributions, random walk problems, point estimation, confidence limits, hypothesis testing, applications of Bayes’ Theorem, sums of independent random variables, law of large numbers, and central limit theorem.
Prerequisites: MATH 2024.

MATH 3033 Principles of Statistics I: 3 semester hours.
An introduction to probability distributions, sampling and descriptive measures, inference and hypotheses testing, linear regression, and analysis of variance.
Prerequisites: MATH 3023.
**MATH 3043 Principles of Statistics II: 3 semester hours.**
Design of experiments, model building, multiple regression, nonparametric techniques, and contingency tables, introduction to decision theory and time series data.
Prerequisites: MATH 3023 or MATH 3033.

**MATH 3073 Linear Algebra: 3 semester hours.**
Systems of linear equations, matrices, real vector spaces, linear transformations, change of bases, determinants, eigenvalues and eigenvectors, diagonalization and inner product spaces.
Prerequisites: MATH 2024.

**MATH 3103 History of Mathematics: 3 semester hours.**
The development of mathematical thought from ancient time to the present. Contributions by the great Greek, Roman, and German mathematicians, as well as by others.
Prerequisites: MATH 1124 or MATH 2153.

**MATH 3106 Introduction to Cooperative Education: 6 semester hours.**
Introduces the student to professional experiences and applications of mathematics in the work place. Attention is given to the role of personality attributes in success on the job; and to the role of the applied mathematician in the industrial and professional settings.

**MATH 3163 Mathematics Understanding: 3 semester hours.**
Basic concepts underlying algebra, geometry, trigonometry and calculus, mathematics problem solving and critical thinking assessments, mathematical concepts leading to vertically connected tasks that demonstrate how to build and connect mathematics tasks across teacher certification EC-6 and 4-8.
Prerequisites: MATH 2163.

**MATH 3613 Intro Biostatistics: 3 semester hours.**
Descriptive statistics, data presentation, counting techniques, probability theory concepts, application of Bayes’ theorem, random numbers, random variables, discrete and continuous random variables, binomial distribution, Poisson distribution, multinomial distribution, normal distribution, exponential distribution, lognormal distribution, the central limit theorem, covariance, correlation, point and internal estimation, hypothesis testing, p-values, simple linear regression, analysis of categorical data, applications in biology and biomedicine.
Prerequisites: MATH 1124.

**MATH 3685 Math for Engineers: 5 semester hours.**
Prerequisites: MATH 1124.

**MATH 3933 Geometry: 3 semester hours.**
An in-depth study of the Euclidean geometry of the plane from an advanced standpoint. A brief development of different types of geometries by the use of transformations.
Prerequisites: MATH 1124 or MATH 2153.

**MATH 3995 Independent Study: 1-5 semester hour.**
Reading, research, and or field work on selected topics.

**MATH 4001 Mathematics Colloquium: 1 semester hour.**
Detailed reports on selected topics in both theoretical and applied mathematics. Mathematics majors are required to report individually on at least one topic of a moderate degree of difficulty as a demonstration of their resourcefulness, ability, and achievement in the field of mathematics.

**MATH 4003 Mathematics Modeling and Applications: 3 semester hours.**
Models for teaching and learning mathematics, which includes an integration of content, problem solving strategies, real world applications and use of technology.
Prerequisites: MATH 1123.

**MATH 4043 Mathematical Statistics: 3 semester hours.**
Distribution of statistics; expectations; limiting distribution; point estimation; confidence intervals and sufficient statistics.
Prerequisites: MATH 3023.

**MATH 4053 Mathematics Teaching Capstone Course: 3 semester hours.**
The course summarizes, evaluates and integrates college mathematics experiences and provides reviews of mathematical skills. Students must demonstrate that they have mastered their academic program goals.

**MATH 4063 Numerical Analysis: 3 semester hours.**
Linear and nonlinear systems, matrix inversions and eigenvalues, polynomial approximations, quadrature interpolation, least square, finite differences, including analyses of algorithms and solutions utilizing numerical methods.
Prerequisites: MATH 3073 and COMP 1013.
MATH 4073 Introduction to Linear Models: 3 semester hours.
An introduction to the formulation of linear models and the estimation of the parameters of such models, with primary emphasis on least squares.
Application to multiple regression and curve fitting.
Prerequisites: MATH 3073 and MATH 3023.

MATH 4083 Advanced Calculus I: 3 semester hours.
Number sequences, limits, sequential functions, properties of continuous functions, and mean value theorem and Riemann Integral.
Prerequisites: MATH 2043 and MATH 3014.

MATH 4093 Advanced Calculus II: 3 semester hours.
Properties of the Reimann-Stieltjes integral; and the theorems of Stokes and Green.
Prerequisites: MATH 4083.

MATH 4113 Differential Equations II: 3 semester hours.
Prerequisites: MATH 2043 and MATH 3073.

MATH 4123 Introduction to Topology: 3 semester hours.
An introduction to topology, including sets, functions, metric spaces, topological spaces, compactness, connectedness, convergences, and continuity.
Prerequisites: MATH 3013.

MATH 4133 Fourier Series and Wavelets: 3 semester hours.
Fourier series, Fast Fourier Transform; continuous and discrete filters, orthogonality and orthogonal subspaces; Haar wavelets; multi-resolution analysis; Daubechies wavelets; non-orthogonal wavelets; applications such as data compression and image processing.
Prerequisites: (MATH 2024 (may be taken concurrently) or MATH 3685) and MATH 3073.

MATH 4173 Advanced Math for Engineers: 3 semester hours.
Matrices and determinants, vector spaces, systems of linear equations, eigenvalues and eigenvectors; power series, Laplace transforms, Fourier series and orthogonal functions, numerical solutions to ordinary differential equations.

MATH 4203 Introduction to Operations Research: 3 semester hours.
Operations Research with emphasis on the fundamental methods including linear programming, dynamic programming, deterministic models for inventory and production control, and applications to queuing theory.

MATH 4213 Introduction to Analysis: 3 semester hours.
Metric spaces, compactness, completeness, connectedness, sequences and series of functions, theorems of Baire, Weierstrass, and Arzela-Ascoli, and Lebesque integration.
Prerequisites: MATH 4083.

MATH 4223 Introduction to Complex Analysis: 3 semester hours.
The algebra of complex numbers and their geometric representation; analytic functions; and Cauchy-Riemann equations, elementary functions, complex integration, power series, calculus of residues, conformal mapping, and application.
Prerequisites: MATH 3014.

MATH 4233 Special Topics: 3 semester hours.
This course is designed to ascertain that faculty with different expertise have the opportunity to relay those to the mathematics majors. Topics are to be chosen from those other than what are in the existing courses in the catalog, such as number theory, stochastic processes, partial differential equations and methods of teaching mathematics to teachers of mathematics.

MATH 4603 Intro Bayesian Stat: 3 semester hours.
Logic, probability and uncertainty, Bayesian inference for discrete random variables, Bayesian inference for continuous random variables, comparison of Bayesian and classical inferences for proportion and mean, Bayesian inference for the difference between two means, Bayesian methods for simple linear regression and robust Bayesian methods.
Prerequisites: MATH 3023.

MATH 4893 Mathematics Capstone Course: 3 semester hours.
This course is designed to ascertain that the mathematics major is proficient in the majority of the major requirements such as the Calculus sequence, Differential Equations, Linear Algebra, Abstract/Modern Algebra, Advanced Calculus, Probability, Statistics, and Numerical Analysis. Students will participate in class discussion, write summaries of readings, do group solving, give oral presentations, submit mini projects and complete a major project. This course will provide an integrated experience of the student's program. Its intensity will enhance the student's chances of success in the required major field test.

MATH 4995 Independent Study: 1-5 semester hour.
Reading, research, and/or field work on selected topics.

MATH 5013 Introduction to Point-Set Theory: 3 semester hours.
Basic set theory; cardinal and ordinal numbers; countable and well-ordered sets; and the study of the basic properties of metric spaces with an introduction to completeness, separability and compactness.
Prerequisites: MATH 4123.
MATH 5023 Complex Analysis I: 3 semester hours.
Holomorphic functions, complex integration, residue theorem. Taylor series, Laurent series, conformal mapping, and harmonic functions.
Prerequisites: MATH 4223.

MATH 5033 Complex Analysis II: 3 semester hours.
Infinite products, Weierstrass factorization theorem, Mittag-Leffler's theorems, normal families, Picard's theorem, and Riemann mapping theorem.
Prerequisites: MATH 5023.

MATH 5103 Special Problems: 3 semester hours.
Reading and discussion of articles appearing in various mathematical journals; and statistics patterns and techniques of mathematical research; modern techniques and trends in the field of advanced mathematics. Trends in the field of elementary mathematics and statistics.

MATH 5123 General Topology I: 3 semester hours.
Topological spaces including continuous functions, compactness, separation properties, connectedness and metric spaces.
Prerequisites: MATH 5013.

MATH 5203 Calculus for High School Teachers: 3 semester hours.
Concise treatment of certain fundamental ideas in the mathematics of the calculus with the intention of extending, illuminating, and clarifying the teacher's past knowledge.

MATH 5233 Selected Topics in Mathematics: 3 semester hours.

MATH 5273 Mathematical Modeling: 3 semester hours.
Fundamentals and Classifications of Mathematical Models; Construction of Models applicable to a variety of disciplines; Methods of qualitative analysis of Formulated Mathematical Model; Understanding and interpreting of obtained results; Inferences and Predications about the system behavior; and Computer investigations and simulation.
Prerequisites: MATH 4063.

MATH 5283 Number Theory I: 3 semester hours.
Prime Numbers; Unique Factorization; Congruencies with Application; Diophantine Equations; Reciprocity Laws; Quadratic Forms; Continued Fractions; Algebraic Number Fields; and Geometry of Numbers, possible application coding, and cryptography.
Prerequisites: MATH 3013.

MATH 5293 Mathematical Logic: 3 semester hours.
The Propositional Calculus; the Predicate Calculus; Proof Systems for Propositional and Predicate Calculus; Extensions of the Predicate Calculus Theories; Definability; and Interpretability.

MATH 5303 Modern Techniques in Secondary Mathematics: 3 semester hours.
Teaching strategies; instructional packages composed of modules of various areas and topics of mathematics; performance-based teaching methods; effective use of audiovisual equipment and materials; and small group methods.

MATH 5343 Boundary Value Problems: 3 semester hours.
Fourier Series and integrals, application of partial differential equations to problems, including heat flow, fluid flow, electric fields, mechanical vibration, and similar problems arising in chemistry, physics, radiotherapy and engineering.
Prerequisites: MATH 2043.

MATH 5413 Seminar: 3 semester hours.
Seminar in mathematics lectures, demonstrations, and reports on current trends in the field of mathematics and statistics.

MATH 5443 Statistics for High School Teachers: 3 semester hours.
Processes of statistical methods, with reference to applications in various fields and with special application to analysis of school data.
Prerequisites: MATH 3023.

MATH 5473 Probability: 3 semester hours.
Laws of Large Numbers, Central Limit Theorems, Random Walks, Martingales, Markov Chains, Ergodic Theorems and Brownian Motion.
Prerequisites: MATH 3023.

MATH 5543 Foundations of Geometry: 3 semester hours.
Euclidean and Non-Euclidean Geometries by an axiomatic approach to incidence; Neural Euclidean and Non-Euclidean Plane Geometry. Various Models such as Euclidean; hyperbolic, spherical and projective taxicab planes will be considered throughout the course. Discussion of implementation strategies for teaching geometry and proof techniques for high school students.
Prerequisites: MATH 3933 and MATH 3013.

MATH 5613 Theory of Matrices: 3 semester hours.
Definitions in matrix algebra; inverse of a matrix, transposition of a matrix, rank of a matrix, linear transformations; differentiation and integration of matrices; and application of matrices to systems of linear equations; quadratic forms, bilinear forms, and systems of differential equations.
Prerequisites: MATH 3073.
**MATH 5723 Partial Differential Equations: 3 semester hours.**
Existence and uniqueness theorems, techniques for solving first and second order partial differential equations, approximate (numerical) solutions and applications.
Prerequisites: MATH 5343.

**MATH 5733 Mathematical Analysis I: 3 semester hours.**
Number System; Topology of Real Line; Sequences and Series; Function; Limit of Functions; Continuity and Differentiation.
Prerequisites: MATH 4213.

**MATH 5753 Mathematical Analysis II: 3 semester hours.**
Measure Theory; Riemann; Stieltjes Integral; Sequences and Series of functions; and some special functions.
Prerequisites: MATH 4213.

**MATH 5763 Intermediate Differential Equations: 3 semester hours.**
Existence theorems, uniqueness theorems, and vector and matrix treatment of linear and non-linear systems of ordinary differential equations.
Prerequisites: MATH 4113.

**MATH 5773 Functional Analysis: 3 semester hours.**
Normed linear spaces and Branch spaces, continuity and bounded linear operators, differentiation, geometry of inner product spaces, Hilbert spaces, compact operators.
Prerequisites: (MATH 5733 and MATH 5023).

**MATH 5833 Biomathematics: 3 semester hours.**
Introduce a variety of Mathematical Models for biological systems and provide the necessary theory and techniques to analyze these models. These models include but are not limited to classical population models, the Nicholson Baily model and the Leslie Matrix model. Examples from Cell Biology, population genetics and Physiology will be provided as well. The models in this course are deterministic mathematical models formulated by Difference Equations or Ordinary Differential Equations.
Prerequisites: MATH 4113 and MATH 3613.

**MATH 5893 Thesis Research, A-D: 3 semester hours.**
Research for thesis. Course may be repeated for credit, at most two times.

**MATH 5903 Modern Algebra: 3 semester hours.**
Fundamental concepts of algebra; integral domain, fields, and introduction to such concepts as groups, vector spaces, and lattices.
Prerequisites: MATH 3013.

**MATH 5993 Independent Study: 3 semester hours.**
Course description will vary according to course chosen for independent study.

### Mechanical Engineering (MCEG)

**Courses**

**MCEG 1011 Intro Engr Cs Tech: 1 semester hour.**
Introduction to basic engineering, computer science and technology concepts. Students will become aware of the various disciplines of engineering, computer science and technology, ethical responsibilities in these fields, creativity and design.
Co-requisite: MCEG 1021.

**MCEG 1021 Introduction to Mechanical Engineering Drawing and Design Lab I: 1 semester hour.**
Introduction to 3D modeling, technical sketching, multi-views and visualization, geometric dimensioning and tolerancing, and working drawings and assembly.

**MCEG 2013 Thermodynamics I: 3 semester hours.**
First Law, transformation of energy, theoretical limitations, Second Law, absolute temperature, entropy, and available energy, properties of gases, liquids, and vapors, and irreversibility.
Prerequisites: MATH 2024 and PHYS 2513.

**MCEG 2023 Materials Science and Engineering: 3 semester hours.**
Science concepts of crystal structures, atomic scale defects, bonding, phase diagrams and solidification. Relationship between microstructure and thermal, mechanical, optical, electrical and magnetic properties of materials.
Prerequisites: CHEM 1033 or CHEM 1034 or CHEM 1043.

**MCEG 2053 Engineering Mechanics II: 3 semester hours.**
Kinematics and kinetics of particles and of rigid bodies as applied to engineering problems; Newton's laws of motion; work and energy; impulse and momentum; translations; rotation; plane motion; motion about a point; general motions; and periodic motions.
Prerequisites: CVEG 2043.
MCEG 3011 Measurement and Instrumentation Laboratory: 1 semester hour.
The scope of this course includes fundamentals in measurement theory, statistical analysis of experimental data, uncertainty, accuracy assessments, and calibration techniques. The course includes the use and applications of instruments for measuring area, pressure, time, speed, temperature, strain, hardness, and deflection. 
Prerequisites: PHYS 2513 and PHYS 2511 and PHYS 2521.

MCEG 3013 Heat Transfer: 3 semester hours.
Study of the fundamental modes of heat transfer, conduction, convection, and thermal radiation, separately and in combination. Theoretical, numerical, and design methods of analysis of steady, transient, single, and multidimensional problems will be emphasized.
Prerequisites: MATH 2043 and MCEG 3063.

MCEG 3021 Thermal Science Laboratory: 1 semester hour.
This course includes experimental investigation of the performance of various thermal systems, such as engines, combustion unit, heat exchangers, nozzles, boilers and turbo machinery.
Prerequisites: MCEG 3011 and MCEG 3013 (may be taken concurrently) and ELEG 1043 (may be taken concurrently).

MCEG 3023 Thermodynamics II: 3 semester hours.
Continuation of Thermodynamics I, including various power cycles, refrigeration cycles, fluid flow, combustion process, and advanced concepts of gas dynamic, such as shock waves.
Prerequisites: MCEG 2013 and MATH 2024.

MCEG 3031 Manufacturing Processes Laboratory: 1 semester hour.
This lab includes experiments for metal identification, machinability of materials, effects of factors on surface roughness measurement, material removal rates, and cutting tool force analysis. It also includes illustrations of casting, forging, rolling, and powder metallurgy. Student will be required to design a structure part and perform manufacturing operations.
Co-requisite: MCEG 3033.

MCEG 3033 Manufacturing Processes: 3 semester hours.
This course provides the concepts for the conversion of materials into products. It includes measurement and quality assurance, and processes of casting, forming, material removal, and joining. In addition, it involves the study of computer numerical control machines, manufacturing systems, and automation.
Prerequisites: MCEG 2023.

MCEG 3043 Machine Design I: 3 semester hours.
Fundamentals of mechanical design methodology, design of machine elements for static and fatigue failure, individual projects and classroom discussions of various design solutions.
Prerequisites: CVEG 2063 and MCEG 1021.

MCEG 3053 Kinematic Design and Analysis: 3 semester hours.
This course includes the theory and application for the kinematic design of mechanisms. The students will be required to use computers to model, analyze, and synthesize mechanical systems.
Prerequisites: MCEG 1021 and MCEG 2053.

MCEG 3063 Fluid Mechanics: 3 semester hours.
The fundamental conservation laws in fluid statics and dynamics are derived and solved analytically and numerically. Other topics include: analysis of viscous and inviscid flow; laminar and turbulent flows in pipes and on external surfaces; open channel flow; hydraulic machinery; and introduction to compressible flow. Direct applications to problems encountered in practice and in engineering design will be covered. Problem solving and design application will be emphasized.
Prerequisites: MCEG 2013 and MATH 2043 (may be taken concurrently) and MCEG 2053 (may be taken concurrently).

MCEG 3073 Automatic Controls: 3 semester hours.
Analysis and synthesis of continuous time control systems, transfer function, block diagrams, stability, root locus, state space representation, and design considerations for feedback control system.
Prerequisites: MATH 4173 (may be taken concurrently).

MCEG 3123 Renewable Energy and Energy Sustainability: 3 semester hours.
The topics of various types of renewable energies, energy conversion, utilization and storage technologies, such as wind, solar, biomass, fuel cells and hybrid systems. For each source, the physical and technological principles are explained and the economics, environmental impacts and future prospects are examined. The course explores the main factors likely to influence the long-term evolution of the world’s energy systems and the technologies and policies that could be adopted to create more sustainable energy systems.
Prerequisites: CHEG 3113.

MCEG 3156 Mechanical Engineering Internship I: 6 semester hours.
An internship program of work experience with an approved engineering firm.

MCEG 3193 Introduction to Robotics: 3 semester hours.
Fundamental topics in Robotics covering configuration (forward and reverse) kinematics, motion kinematics, force/torque relations and trajectory planning. Rudiments of dynamics and position control are also introduced.
Prerequisites: MATH 4173 (may be taken concurrently).
MCEG 4043 Machine Design II: 3 semester hours.
This is a design course featuring a design project using strength of materials, kinematics of machines, machine element design (e.g. gears and shafts), and CAD.
Prerequisites: MCEG 3043 and MCEG 3053 (may be taken concurrently).

MCEG 4063 Dynamic Systems and Controls: 3 semester hours.
The scope of this course includes mathematical modeling, analysis, and feedback control of dynamic systems. Topics include free and force vibrations of single and multiple degrees of freedom systems. Transient, steady-state, and stability of linear feedback control systems will be studied in the course.
Prerequisites: MCEG 2053 and MATH 2043.

MCEG 4093 Finite Element Analysis and Design: 3 semester hours.
An introduction to finite element analysis as a modern computational tool to solve boundary value problems. Applications will be in structural mechanics, fluid flow, and heat transfer. Design and computer projects included.
Prerequisites: CVEG 2063 and MCEG 3013 (may be taken concurrently).

MCEG 4113 Modeling and Simulation of Engineering Systems: 3 semester hours.
Concepts, models, notations, and methods to effectively and efficiently design and implement complex engineering systems. Provides a hands-on approach to mathematical modeling and computer simulations across physical domains. Both constrained and unconstrained systems are considered with examples of analytical and numerical solutions for system modeling and model validation.
Prerequisites: ELEG 1043 and CVEG 2053 and (MCEG 3063 or CVEG 3063).

MCEG 4123 Energy System Design: 3 semester hours.
A design course emphasizing heat exchangers, heat pipes, heat reclamation devices, piping systems, and solar heating and cooling systems.
Prerequisites: MCEG 3013 (may be taken concurrently) and MCEG 3023 (may be taken concurrently).

MCEG 4156 Mechanical Engineering Internship II: 6 semester hours.
Continuation of MCEG 3156.

MCEG 4163 Special Topics: 3 semester hours.
Selected current and emerging topics in mechanical engineering depending on need determined by the department.

MCEG 4183 Gas Dynamics: 3 semester hours.
Fundamentals in compressible fluid flow, one dimensional and two dimensional flows, subsonic and supersonic flow. Topics include isentropic flow, normal and oblique shock, Prandtl-Meyer Flow, flow with friction and heat transfer, and various engineering applications.
Prerequisites: MCEG 3023 (may be taken concurrently) and MCEG 3063.

MCEG 4472 Senior Design and Professionalism-1: 2 semester hours.
This is the first course of a two-semester capstone experience (MCEG 4472 must immediately follow MCEG 4472 or sequence must restart with MCEG 4472) involving engineering design of an industrial or advanced team project. Elements of ethics and professionalism in engineering practice are integrated into the project experience. The project will include application of relevant engineering codes and standards, as well as realistic constraints. Design achievements are demonstrated with written reports, and oral presentation, and professional standards and ethics examinations.
Prerequisites: MCEG 3043 and MCEG 3011 and MCEG 3023.
Co-requisite: MCEG 3013.

MCEG 4482 Senior Design and Professionalism II: 2 semester hours.
A continuation of MCEG 4472 with required design modifications of the team projects necessary to produce a working prototype of the designs initiated in Senior Design and Professionalism I. Design project deliverables include an oral presentation, a final written report and demonstration of prototype, or model of the design. Elements of professionalism reinforce the importance of professional engineering ethics, corporate culture, life-long learning, and globalization.
Prerequisites: MCEG 4472.

MCEG 4993 Independent Study: 1-3 semester hour.
Readings, research, and/or field work on selected topics.

MCEG 5023 Advanced Thermodynamics: 3 semester hours.
Theories of thermodynamics and their application to the more involved problems in engineering practice or design. Topics include advanced power cycles, superconductivity, thermodynamic relations, chemical thermodynamics and phase equilibrium.

MCEG 5033 Advanced Machine Design: 3 semester hours.
A systematic approach to machine design is studied in detail. Topics include systematic steps for planning and design, methods for developing and evaluating solutions, conceptual design, embodiment design, and product life cycle.

MCEG 5043 Turbomachinery: 3 semester hours.
This course in an introduction to Turbomachinery and its applications in engineering science. Fluid mechanics and thermodynamics applied to turbomachines; dimensionless performance characteristics; momentum and energy equations; thermodynamics and efficiencies; cascade aerodynamics; compressors and turbines; reaction and stage loading; radial equilibrium; radial flow machines; application of generalized performance to choice of compressors; and mechanical details and auxiliary systems.
MCEG 5163 Advanced Engineering Fluid Dynamics: 3 semester hours.
A comprehensive study of fluid mechanics and dynamics is considered. This includes Potential flow, Stokes flow, Oseen flow, other inviscid flow, Echelman flow, and other viscous flows such as Boundary Layer Analysis. An introduction to perturbation to theory will also be given.

MCEG 5183 Computer Integrated Manufacturing: 3 semester hours.
A total integration of manufacturing, management, strategic planning, finance, and the effective use of computer technology in the control of the production process.

MCEG 5223 Advanced Heat Transfer: 3 semester hours.
An advanced study of heat and mass diffusion, convection, conjugate heat transfer, heat exchangers two-phase heat transfer, micro-scale heat and mass transfer, and thermal radiation. Lump, integral, differential, and numerical analysis will be included and a term project will be required.

MCEG 5233 Robotics: 3 semester hours.
Topics in Robotics covering configuration (forward and reverse) kinematics, Jacobians (velocities and static forces), force/torque relations, trajectory planning, dynamics and position control.

MCEG 5243 Dynamics of Engineering Systems: 3 semester hours.
Modeling and manipulation of dynamic engineering systems, basic component models, system models, state-space equations, analysis of linear systems, and nonlinear simulation.

MCEG 5253 Advanced Engineering Materials: 3 semester hours.
Qualitative and quantitative relationships between microstructure and mechanical properties. Studies of dislocation theory, elasticity, plasticity, brittle and ductile fracture, fatigue and creep, design criteria and statistical aspects of failure.

MCEG 5263 Nanotechnology & Nanomaterials: 3 semester hours.
Fundamentals to develop new materials, devices, and systems at the atomic and meso scale and to employ them to achieve novel properties. Carbon nanotubes, nanophysics, nanomaterials, nanomechanics, nanoelectronics, nanoscale heat transfer and fluid mechanics, nanobiotechnology, and MEMS and NEMS.

MCEG 5333 Computational Fluid Dynamics: 3 semester hours.
Potential flow theory. Application of numerical methods and the digital computer to inviscid flow analysis. Application of vortex lattice, panel element, and boundary element methods to incompressible and compressible three dimensional aerodynamic flow problems. Wings and Wing-body analysis and incorporation of boundary integration for complete modeling.

Merchandising & Design (MERC)

Courses

MERC 3713 Evaluation of Apparel and Home Accessories: 3 semester hours.
Study and analysis of design, textures and color coordination in ready-to-wear and home furnishings and accessories. Comparative examination of manufacturing, merchandising, sales and management from a retail/wholesale and consumer perspective.

MERC 3723 Apparel Selection and Evaluation: 3 semester hours.
Study, analysis, and evaluation of textiles for individual apparel and household utilization. Study of fabric design, pattern design and making through use of computer simulation techniques. Comparison of methods for style and size variations, time management and garment cost. Review and analysis of current regulations for domestic and international trade relative to the textile and apparel industry.
Prerequisites: DESN 2113 and HUSC 1333.

MERC 3743 Fashion Buying: 3 semester hours.
Analysis and study of the functions in fashion retail/wholesale organizations. Focus on concepts essential for buying, distribution, merchandising and marketing of ready-to-wear.

MERC 4743 Fashion: 3 semester hours.
Study of the procedures for risk management and merchandising for the fashion retailer/wholesaler. Emphasis on planning, decision-making and management of varied resources and applications through computer simulations. Course work supplemented by case studies in merchandising.

MERC 4763 Promotion and Visual Merchandising: 3 semester hours.
Promotion of products through visual merchandising including fashion show production, special events, display, selling techniques and other promotional activities in industry and retailing. Coordination of buying, selling, promoting, display, and advertising functions in retail store merchandising.

MERC 4773 Fashion Study Tour: 3 semester hours.
Observation and analysis of domestic and/or foreign costumes, textiles, apparel markets, manufactures/mills, retailers/wholesalers, historic collections and sites; professional seminars.
Prerequisites: MERC 3743.
Mngmnt Info Sys for Executives (EMIS)

Courses

*EMIS 5513 Information Technology and Organizational Value Creation: 3 semester hours.*
Role of Information technology in value creation in organizations. Covers topics such as business value of organizational technologies (such as ERP, CRM, etc.), IT-based resources, capabilities, and competitive advantage.

Music (MUSC)

Courses

*MUSC 1111 University Band: 1 semester hour.*
An ensemble devoted to the performance of band music.

*MUSC 1121 University Choir: 1 semester hour.*
An ensemble devoted to the performance of choral music.

*MUSC 1131 Chamber Vocal Ensemble: 1 semester hour.*
The study of Music for vocal ensembles.
Prerequisites: MUSC 1121 (may be taken concurrently) or MUSC 2121 (may be taken concurrently) or MUSC 3121 (may be taken concurrently) or MUSC 4121 (may be taken concurrently).

*MUSC 1141 Jazz Band: 1 semester hour.*
An ensemble devoted to the study and performance of literature written for jazz band.

*MUSC 1151 Brass Ensemble: 1 semester hour.*
The study and performance of literature written for brass instruments.

*MUSC 1161 University Orchestra: 1 semester hour.*
An ensemble devoted to the performance of orchestral music.

*MUSC 1171 Percussion Ensemble: 1 semester hour.*
The study and performance of literature written for percussion instruments.

*MUSC 1181 Chamber Music: 1 semester hour.*
The study, rehearsal, and performance of instrumental literature for small ensemble.

*MUSC 1211 Sight Singing and Ear Training I: 1 semester hour.*
The development of music reading and aural comprehension. Melodic and harmonic diction.
Co-requisite: MUSC 1233.

*MUSC 1213 Fundamentals of Music: 3 semester hours.*
An introduction to the basic materials of music.

*MUSC 1221 Sight Singing and Ear Training II: 1 semester hour.*
The development of music reading and aural comprehension. Melodic and harmonic diction.
Prerequisites: MUSC 1211.
Co-requisite: MUSC 1243.

*MUSC 1223 Fundamentals of Music: 3 semester hours.*
An introduction to the basic materials of music.

*MUSC 1233 Music Theory: 3 semester hours.*
The study of diatonic harmony in tonal music. Keyboard application and aural comprehension of materials are emphasized.
Co-requisite: MUSC 1121.

*MUSC 1243 Music Theory: 3 semester hours.*
Continued study of diatonic harmony in tonal music. Keyboard application and aural comprehension of materials are emphasized.
Prerequisites: MUSC 1233.
Co-requisite: MUSC 1221.

*MUSC 1253 Musicianship I: 3 semester hours.*
The study of the basic materials of music through rhythm, melody, and harmony. For music majors and minor only. A requirement for entering music majors who do not pass the piano proficiency examination.

*MUSC 1263 Musicianship II: 3 semester hours.*
The study of the basic materials of music through rhythm, melody, and harmony. For music majors and minor only. A requirement for entering music majors who do not pass the piano proficiency examination.
**MUSC 1313 Music in Contemporary Life: 3 semester hours.**
The study of music of the western European and nonwestern cultures, with emphasis on such elements as melody, rhythm, form, and timbre. Musical examples from classical, along with folk, pop, jazz, religious, nonwestern sources.

**MUSC 1361 Strings: 1 semester hour.**
Freshman Level 1 2, private lesson. The study of selected solo literature, scales, and technical etudes for string instruments. Seminar attendance and performances required.

**MUSC 1362 Strings: 2 semester hours.**
The study of selected solo literature, scales and technical etudes for string instruments. Freshman Level I and II, private lesson. Required seminar performances.

**MUSC 1413 Music Technology: 3 semester hours.**
The study of technology as it applies to the field of music. Topics include music notation, Musical Instrument Digital Interface,(MIDI), sequencing, and technology-assisted instruction.

**MUSC 1512 Piano: 2 semester hours.**
The study of selected solo literature, together with technical etudes for the piano. Freshman level 1 2, private lesson. Seminar performances required.

**MUSC 1513 Piano: 3 semester hours.**
The study of selected solo literature together with technical studies for the piano. Freshman Level 1 and 2, private lesson. Required seminar performances.

**MUSC 1531 Piano: 1 semester hour.**
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for piano through weekly individual instruction. Seminar attendance and performances required.

**MUSC 1533 Class Piano: 3 semester hours.**
Beginning piano studies through group instruction.

**MUSC 1543 Class Piano: 3 semester hours.**
Beginning piano studies through group instruction.

**MUSC 1551 Functional Piano I: 1 semester hour.**
An introduction to functional keyboard skills for music majors. Not for piano majors. For music majors and minors.

**MUSC 1561 Functional Piano II: 1 semester hour.**
An introduction to functional keyboard skills for music majors. Not for piano majors. For music majors and minors.

**MUSC 1611 French Diction/Song Literature: 1 semester hour.**
A study of French pronunciations for singing through the use of the International Phonetic Alphabet combined with the study of French repertoire for solo voice from the Romantic era to 20th century. For voice majors. Not repeatable for credit.

**MUSC 1612 Voice Class: 2 semester hours.**
Voice instruction in a group setting. Instruction includes tone production, breath support, and correct diction for singers. Non-majors only.

**MUSC 1613 Voice: 3 semester hours.**
The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

**MUSC 1621 German Diction/Song Literature: 1 semester hour.**
A study of German pronunciations for singing through the use of the International Phonetic Alphabet combined with the study of German repertoire for solo voice from the Romantic era to 20th century. For voice majors.

**MUSC 1622 Voice Class: 2 semester hours.**
Voice instruction in a group setting. Instruction includes tone production, breath support, and correct diction for singers. Non-majors only.

**MUSC 1631 Italian Diction/Song Literature: 1 semester hour.**
A study of Italian pronunciations for singing through the use of the International Phonetic Alphabet combined with the study of Italian repertoire for solo voice from the Romantic era to 20th century. For voice majors.

**MUSC 1632 Voice: 2 semester hours.**
The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

**MUSC 1641 English Diction/Song Literature: 1 semester hour.**
A study of English pronunciations for singing through the use of the International Phonetic Alphabet combined with the study of American and British repertoire for solo voice from the Romantic era to 20th century. For voice majors.

**MUSC 1651 Voice: 1 semester hour.**
Freshman Level 1 2, private lesson. The study of selected solo literature and materials for the voice through weekly individual instruction. Seminar attendance and performances required.

**MUSC 1711 Brass: 1 semester hour.**
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required.
MUSC 1712 **Brass: 2 semester hours.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1713 **Brass: 3 semester hours.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1771 **Wind Ensemble: 1 semester hour.**  
Audition-only instrumental ensemble with the highest standards performing the diverse literature of the past two centuries as well as new and exciting contemporary works.

MUSC 1781 **Wind Ensemble: 1 semester hour.**  
Audition-only instrumental ensemble with the highest standards performing the diverse literature of the past two centuries as well as new and exciting contemporary works.

MUSC 1811 **Woodwinds: 1 semester hour.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwinds instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1812 **Woodwinds: 2 semester hours.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1813 **Woodwinds: 3 semester hours.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1911 **Percussion: 1 semester hour.**  
Freshman Level 1 2, private lesson. The study of selected solo literature and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1912 **Percussion: 2 semester hours.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 1913 **Percussion: 3 semester hours.**  
Freshman Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required.

MUSC 2111 **University Band: 1 semester hour.**  
An ensemble devoted to the performance of band music.

MUSC 2121 **University Choir: 1 semester hour.**  
An ensemble devoted to the performance of choral music.

MUSC 2161 **University Orchestra: 1 semester hour.**  
An ensemble devoted to the performance of orchestral music.

MUSC 2181 **Chamber Music: 1 semester hour.**  
The study, rehearsal, and performance of instrumental literature for small ensemble.

MUSC 2211 **Sight Singing III: 1 semester hour.**  
The development of reading and aural comprehension of music. Melodic and harmonic dictation.  
Prerequisites: MUSC 1221.  
Co-requisite: MUSC 2213.

MUSC 2213 **Music Theory: 3 semester hours.**  
The study of chromatic harmony in tonal music. Keyboard application, analysis, and aural comprehension of materials are emphasized.  
Prerequisites: MUSC 1243.  
Co-requisite: MUSC 2211.

MUSC 2221 **Sight Singing IV: 1 semester hour.**  
The development of reading and aural comprehension of music. Melodic and harmonic dictation.  
Prerequisites: MUSC 2211.  
Co-requisite: MUSC 2223.

MUSC 2223 **Music Theory: 3 semester hours.**  
The study of chromatic harmony in tonal music. Keyboard application, analysis, and aural comprehension of materials are emphasized.  
Prerequisites: MUSC 2213.  
Co-requisite: MUSC 2221.
MUSC 2323 Music Literature: 3 semester hours.
A course to develop the listening skills of the music major in preparation for advanced study in Music History and Analysis of Music.

MUSC 2333 Afro-American Music: 3 semester hours.
A survey of historical developments in Afro-American music.

MUSC 2343 Survey of World Music: 3 semester hours.
A survey of traditional and contemporary musical cultures throughout the globe, with special emphasis on the music of Latin America, Africa and the African diaspora, and Asia.

MUSC 2361 Strings: 1 semester hour.
Sophomore Level 1 and 2, private lesson. The study of selected solo literature, scales and technical etudes for string instruments. Seminar attendance and performances required.
Prerequisites: MUSC 1361.

MUSC 2362 Strings: 2 semester hours.
The study of selected solo literature, scales and technical etudes for string instruments. Sophomore Level 1 and 2, private lesson. Required seminar performances.
Prerequisites: MUSC 1362.

MUSC 2411 String Instruments: 1 semester hour.
The study of stringed instruments through playing experiences in a group.

MUSC 2421 Brass Instruments: 1 semester hour.
The study of brass instruments through playing experiences in a group.

MUSC 2431 Woodwind Instruments: 1 semester hour.
The study of woodwind instruments through playing experiences in a group.

MUSC 2441 Percussion Instruments: 1 semester hour.
The study of percussion instruments through playing experiences in a group.

MUSC 2511 Piano: 1 semester hour.
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for piano through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 1531.

MUSC 2512 Piano: 2 semester hours.
The study of selected solo literature, together with technical etudes for the piano. Freshman level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 1512.

MUSC 2513 Piano: 3 semester hours.
The study of selected solo literature, together with technical etudes for the piano. Freshman level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 1513.

MUSC 2521 Piano: 1 semester hour.
Major and minor scales in two octaves for some scales; chord progressions (e.g., I VI IV II 16 V7 I); melodic studies of Burgmuller, Op. 100; easy pieces by Schumann, Beethoven, etc.; completion of Basic Piano for the College Student by Zimmerman; harmonization of simple melodies; chorale and open score reading.
Prerequisites: MUSC 1541.

MUSC 2533 Class Piano: 3 semester hours.
Intermediate piano studies through group instruction.

MUSC 2543 Class Piano: 3 semester hours.
Intermediate piano studies through group instruction.

MUSC 2551 Functional Piano III: 1 semester hour.
A continuation of functional keyboard skills for music majors. Not for piano majors.
Prerequisites: MUSC 1551 and MUSC 1561.

MUSC 2561 Functional Piano IV: 1 semester hour.
A continuation of functional keyboard skills for music majors. Not for piano majors.
Prerequisites: MUSC 2551.

MUSC 2613 Voice: 3 semester hours.
The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.
Prerequisites: MUSC 1613.

MUSC 2632 Voice: 2 semester hours.
The study of selected solo literature and materials for the voice. Sophomore level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 1632.
**MUSC 2651 Voice: 1 semester hour.**
Sophomore Level 1 2, private lesson. The study of selected literature and materials for the voice through weekly individual instruction. Seminar attendance and performance required. Prerequisites: MUSC 1651.

**MUSC 2711 Brass: 1 semester hour.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1711.

**MUSC 2712 Brass: 2 semester hours.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1712.

**MUSC 2713 Brass: 3 semester hours.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1713.

**MUSC 2771 Wind Ensemble: 1 semester hour.**
Audition-only instrumental ensemble with the highest standards performing the diverse literature of the past two centuries as well as new and exciting contemporary works.

**MUSC 2781 Wind Ensemble: 1 semester hour.**
Audition-only instrumental ensemble with the highest standards performing the diverse literature of the past two centuries as well as new and exciting contemporary works.

**MUSC 2811 Woodwinds: 1 semester hour.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1811.

**MUSC 2812 Woodwinds: 2 semester hours.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1812.

**MUSC 2813 Woodwinds: 3 semester hours.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1813.

**MUSC 2911 Percussion: 1 semester hour.**
Sophomore Level 1 2, private lesson. The study of selected solo literature and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1911.

**MUSC 2912 Percussion: 2 semester hours.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1912.

**MUSC 2913 Percussion: 3 semester hours.**
Sophomore Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required. Prerequisites: MUSC 1913.

**MUSC 3111 University Band: 1 semester hour.**
An ensemble devoted to the performance of band music.

**MUSC 3121 University Choir: 1 semester hour.**
An ensemble devoted to the performance of choral music.

**MUSC 3161 University Orchestra: 1 semester hour.**
An ensemble devoted to the performance of orchestral music.

**MUSC 3181 Chamber Music: 1 semester hour.**
The study, rehearsal, and performance of instrumental literature for small ensemble.
MUSC 3212 **Analysis of Music**: 2 semester hours.
An introduction to the techniques of musical analysis as applied to different forms of music.
Prerequisites: MUSC 2223.

MUSC 3221 **Applied Music Composition**: 1 semester hour.
This course is designed to develop the musical and technical abilities in students who wish to learn the craft of composition through analysis, writing, observation and experimentation.

MUSC 3222 **Analysis of Music**: 2 semester hours.
The study of techniques of musical analysis as applied to different forms of music.
Prerequisites: MUSC 3212.

MUSC 3233 **Counterpoint**: 3 semester hours.
The study of the technique of counterpoint through the writing of original examples.
Prerequisites: MUSC 2223.

MUSC 3313 **Music History**: 3 semester hours.
A study of musical styles, forms, and developments in western music from antiquity through the baroque period.
Prerequisites: MUSC 2323.

MUSC 3323 **Music History**: 3 semester hours.
A study of musical styles, forms, and developments in Western music from 1750 to the present.
Prerequisites: MUSC 3313.

MUSC 3361 **Strings**: 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for string instruments. Seminar attendance and performances required.
Prerequisites: MUSC 2361.

MUSC 3362 **Strings**: 2 semester hours.
The study of selected solo literature, scales and technical etudes for string instruments. Junior Level 1 2, private lesson. Required seminar performances.
Prerequisites: MUSC 2362.

MUSC 3462 **Instrumental Literature and Techniques**: 2 semester hours.
A study of the representative literature for orchestral and band instruments. The course will explore pedagogical practices used in teaching ensembles of these instruments.

MUSC 3472 **Choral Literature and Techniques**: 2 semester hours.
A survey of literature for chorus with emphasis on the selection of choral repertoire suitable for ensembles at various levels.

MUSC 3511 **Piano**: 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for piano through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2511.

MUSC 3512 **Piano**: 2 semester hours.
The study of selected solo literature, together with technical etudes for the piano. Junior level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 2512.

MUSC 3513 **Piano**: 3 semester hours.
The study of selected solo literature, together with technical etudes for the piano. Junior level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 2513.

MUSC 3532 **Accompanying**: 2 semester hours.
Instruction and practice in playing accompaniments for vocal and instrumental soloists and groups.

MUSC 3612 **Voice**: 2 semester hours.
The study of selected solo literature and materials for the voice. Junior level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 2632.

MUSC 3613 **Voice**: 3 semester hours.
The study of selected solo literature and materials for the voice through weekly individual instruction. Junior level 1 2, private lesson. Seminar attendance and performances required.
Prerequisites: MUSC 2613.

MUSC 3632 **Opera**: 2 semester hours.
A study of the history of opera from the medieval era to the 20th century. This course will involve extensive reading, listening and viewing of live performances.
Prerequisites: MUSC 2333.
**MUSC 3651 Voice:** 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for the voice through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2651.

**MUSC 3711 Brass:** 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2711.

**MUSC 3712 Brass:** 2 semester hours.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2712.

**MUSC 3713 Brass:** 3 semester hours.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for brass instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2713.

**MUSC 3771 Wind Ensemble:** 1 semester hour.
Audition-only instrumental ensemble with the highest standards performing the diverse literature of the past two centuries as well as new and exciting contemporary works.

**MUSC 3781 Wind Ensemble:** 1 semester hour.
Audition-only instrumental ensemble with the highest standards performing the diverse literature of the past two centuries as well as new and exciting contemporary works.

**MUSC 3811 Woodwinds:** 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2811.

**MUSC 3812 Woodwinds:** 2 semester hours.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2812.

**MUSC 3813 Woodwinds:** 3 semester hours.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for woodwind instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2813.

**MUSC 3911 Percussion:** 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2911.

**MUSC 3912 Percussion:** 2 semester hours.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2912.

**MUSC 3913 Percussion:** 3 semester hours.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for percussion instruments through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 2913.

**MUSC 3993 Independent Study:** 1-3 semester hour.
Readings, research, applied study, and/or field work on special topics in music.

**MUSC 4012 Conducting:** 2 semester hours.
The study of basic conducting techniques. A general conducting course.

**MUSC 4022 Choral Conducting:** 2 semester hours.
The study of choral conducting techniques.
Prerequisites: MUSC 4012.

**MUSC 4032 Instrumental Conducting:** 2 semester hours.
The study of instrumental conducting techniques.
Prerequisites: MUSC 4012.
MUSC 4111 University Band: 1 semester hour.
An ensemble devoted to the performance of band music.

MUSC 4121 University Choir: 1 semester hour.
An ensemble devoted to the performance of choral music.

MUSC 4161 University Orchestra: 1 semester hour.
An ensemble devoted to the performance of orchestral music.

MUSC 4181 Chamber Music: 1 semester hour.
The study, rehearsal, and performance of instrumental literature for small ensemble.

MUSC 4212 Studies in Instrumental Pedagogy: 2 semester hours.
Study of techniques, practices, and materials related to the development and execution of instrumental pedagogy. Topics of study, including woodwinds, brass, and percussion will be determined by the student’s primary applied instrument. For performance majors.

MUSC 4232 Special Topics: Music: 2 semester hours.
Intensive study of selected topics, solo literature and materials such as composition, jazz performance, etc., through individual instruction.
Prerequisites: MUSC 2223.

MUSC 4233 Special Topics: Music: 3 semester hours.
Intensive study of selected topics in theatre and/or performance such as stage management, performance studies, applied theatre, drama therapy, international theatre, etc.
Prerequisites: MUSC 2223.

MUSC 4312 Studies in Instrumental Repertoire: 2 semester hours.
Study of solo, chamber, and orchestral instrumental literature; survey of schools of performance and instruction: woodwinds, brass, and percussion. For performance majors.

MUSC 4361 Strings: 1 semester hour.
Junior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for string instruments. Seminar attendance and performances required.
Prerequisites: MUSC 3361.

MUSC 4362 Strings: 2 semester hours.
The study of selected solo literature, scales and technical etudes for string instruments. Senior Level 1 2, private lesson. Required seminar performances.
Prerequisites: MUSC 3362.

MUSC 4382 String Pedagogy: 2 semester hours.
The study of specific techniques and pedagogical approaches for teaching violin, viola, cello, and double bass in both individual and group situations.
Prerequisites: (MUSC 2361 or MUSC 2372).

MUSC 4511 Piano: 1 semester hour.
Senior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for piano through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 3511.

MUSC 4512 Piano: 2 semester hours.
The study of selected solo literature, together with technical etudes for the piano. Senior level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 3512.

MUSC 4513 Piano: 3 semester hours.
The study of selected solo literature, together with technical etudes for the piano. Senior level 1 2, private lesson. Seminar performances required.
Prerequisites: MUSC 3513.

MUSC 4532 Piano Literature: 2 semester hours.
A study of piano literature from 1600 to the present.

MUSC 4533 Piano Pedagogy: 3 semester hours.
An in-depth study of historical and current methodologies used in teaching piano in all levels.

MUSC 4562 Music in the Elementary School: 2 semester hours.
A study of music curricula, materials and teaching techniques for general music instruction in the elementary school. For music majors only.

MUSC 4612 Voice: 2 semester hours.
Senior level 1 2, private lesson. The study of selected solo literature and materials for the voice through weekly individual instruction. Seminar attendance and performances required.
Prerequisites: MUSC 3612.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
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<tbody>
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<td>MUSC 4632</td>
<td>Opera II: 2 semester hours.</td>
<td>The study of operatic performances and practices.</td>
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<td>MUSC 4633</td>
<td>Vocal Pedagogy: 3 semester hours.</td>
<td>A study of the vocal anatomy, physiology, acoustics of singing, vocal health and teaching methods for studio voice. For vocal performance majors. Vocal education majors may enroll with permission of instructor.</td>
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<tr>
<td>MUSC 4651</td>
<td>Voice: 1 semester hour.</td>
<td>Senior Level 1 2, private lesson. The study of selected solo literature, scales and technical etudes for the voice through weekly individual instruction. Seminar attendance and performances required.</td>
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MUSC 4993 Independent Study: 1-3 semester hour.
Readings, research and/or field work on selected topics.

Navy ROTC (NAVY)

Courses

NAVY 1013 Introduction to Naval Sciences: 3 semester hours.
A general introduction to the naval profession and to concepts of sea power. Instruction emphasizes the mission, organization, and warfare components of the Navy and Marine Corps.

NAVY 1023 Sea power and Maritime Affairs: 3 semester hours.
A survey of U.S. Naval History from the American Revolution to the present, with emphasis on major developments. Included is an in-depth discussion of the geopolitical theory of Mahan.

NAVY 2013 Leadership and Management I: 3 semester hours.
A comprehensive, advanced-level study of organizational behavior and management in the context of the naval organization. Topics include a survey of the management functions of planning, organizing, and controlling; an introduction to individual and group behavior in organization; and extensive study of motivation and leadership. Practical applications are explored by the use of experiential exercises, case studies, and laboratory discussions.

NAVY 2023 Navigation and Naval Operations I: 3 semester hours.
An in-depth study of plotting, including theory, principles, and procedures. Other topics discussed include tides, currents, effects of wind and weather, plotting, use of navigation instruments, types and characteristics of electronic navigation systems, and A Day's Work in Navigation.

NAVY 3013 Navigation and Naval Operations II: 3 semester hours.
A study of relative-motion vector-analysis theory, relative motion problems, formation tactics, and ship deployment. Also included is an introduction to Naval Operations and operations analysis, communications and seamanship.
Prerequisites: NAVY 2023.

NAVY 3023 Naval Ships Systems I: 3 semester hours.
A detailed study of ship characteristics and types, including ship design, hydrodynamic forces, stability, compartmentation, propulsion, electrical and auxiliary systems, interior communications, ship control, and damage control.

NAVY 3103 Evolution of Warfare: 3 semester hours.
This course traces historically the development of warfare from the dawn of recorded history to the present, focusing on the impact of major military theorists, strategists, tacticians, and technological developments.

NAVY 3993 Independent Study: 3 semester hours.
Navy 3000 level course reading and/or field work on selected topics.

NAVY 4013 Naval Ships Systems II: 3 semester hours.
This course outlines the theory and employment of weapons systems. The student explores the processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Fire control systems and major weapon types are discussed.

NAVY 4023 Leadership and Management II: 3 semester hours.
This course is designed to acquaint graduating Midshipmen with the basic elements of naval leadership, ethics, and junior officer responsibilities through the study of the Navy's Core Values, ethics, military justice, naval human resources management, directives and correspondence, naval personnel administration, material management and maintenance, and supply systems.
Prerequisites: NAVY 2013.

NAVY 4113 Fundamentals of Maneuver Warfare: 3 semester hours.
Broad aspects of warfare and their interactions with maneuver warfare doctrine. Specific focus on the United States Marine Corps was the premier maneuver warfare fighting institution. Historical influences on current tactical, operational, and strategic implications of maneuver warfare practices in current and future operations. Case studies. Repeat credit for students who have completed NAVY 4103 Amphibious Warfare.

NAVY 4993 Independent Study: 3 semester hours.
Navy 4000 level course reading and/or field work on selected topics.

Nursing (NURS)

Courses

NURS 3001 Seminar I: 1 semester hour.
This seminar will help the student evolve as a professional by exploring the evolution of issues and trends using a historical perspective. Major issues and policies influencing health care will be included.

NURS 3003 Introduction to Pharmacology: 3 semester hours.
This course discusses basic concepts of pharmacology with emphasis on nursing implications.
Prerequisites: (NURS 3164 and NURS 3263 and MATH 1113).
**NURS 3005 Transition to Professional Nursing: 5 semester hours.**

Designed for the LVN to BSN student to explore the context of professional nursing including critical thinking and evidence based nursing practice. Course content and clinical activities focus on professional roles, values and responsibilities for nursing practice in a dynamic, culturally diverse care environment. Clinical application will focus on care of adults with a variety of health alterations.

Prerequisites: (BIOL 1054 and BIOL 1065).

**NURS 3011 Seminar I-Intro To Prof Pract: 1 semester hour.**

This course partially fulfills the requirements of a clinical internship program. It is designed to introduce students to professional practice. This is a collaborative work-study-scholarship program with a hospital agency and the College of Nursing.

**NURS 3013 Individual Health Assessment: 3 semester hours.**

This course introduces basic components and techniques of the health assessment within the framework of the nursing process. It focuses on data collection regarding the individual's adaptation to internal and external factors within the environment. Emphasis is placed on the individual with high level wellness throughout the lifespan. Laboratory experiences include the application of health assessment skills.

Prerequisites: BIOL 1073 and CHEM 1053 and CHEM 1051.

**NURS 3021 Seminar II - Trans Adv Nur: 1 semester hour.**

This course is designed to assist the student transition into the professional nursing practice by demonstration of clinical skills in patient care. This is the second course in a series of four courses required in this internship program.

**NURS 3023 Basic Pathophysiology: 3 semester hours.**

This course explores the basic principles and concepts of human disease processes. Normal, compensatory, and pathological mechanisms related to physiological functioning of the individual in health and illness are discussed.

Prerequisites: (BIOL 1073 and CHEM 1053 and CHEM 1051).

**NURS 3031 Seminar III - Clinical Pract: 1 semester hour.**

This course is designed to assist students practice nursing skills in various advanced patient care situations. This is the third course in a series of four courses required in this internship program.

**NURS 3041 Seminar IV - Clinical Leadership: 1 semester hour.**

This is the final (fourth) course to fulfill the clinical internship program. Students will demonstrate leadership in providing patient care and application of the professional nursing role.

**NURS 3102 Tools For Success: 2 semester hours.**

This course introduces the student to nursing as a profession. Learners explore historical perspectives, educational pathways and practice roles in nursing. Students will review major concepts which build on prerequisite coursework and develop skills to promote success in nursing.

Prerequisites: HIST 1313 and HIST 1323 and SOCG 1013 and PHIL 2013.

**NURS 3164 Basic Concepts of Nursing: 4 semester hours.**

This theory course introduces basic concepts utilized in health promotion and minor health alterations. Emphasis is placed on identifying basic human needs and understanding principles guiding nursing practice.

Prerequisites: (BIOL 1073 and BIOL 1054 and BIOL 1064 and HUSC 1343).

Co-requisite: NURS 3263.

**NURS 3174 Adult Health Nursing I: 4 semester hours.**

This theory course focuses on the nursing care of adult clients experiencing moderate to major alterations from health. Nursing care of clients with acute and chronic health alterations is explored.

Prerequisites: (NURS 3003 (may be taken concurrently) and NURS 3023 (may be taken concurrently) and NURS 3164 and NURS 3263 and NURS 3013).

Co-requisite: NURS 3273.

**NURS 3185 Family Health Nursing: 5 semester hours.**

This course focuses on the provision of family centered child care. Emphasis is placed on the nursing management of children and their families in health promotion and adaptation to illness.

Prerequisites: NURS 3174 and NURS 3273.

Co-requisite: NURS 3284.

**NURS 3223 Introduction to Perioperative Nursing: 3 semester hours.**

This theory and clinical course provides the student an opportunity to further develop knowledge and skills in the perioperative nursing role. Direct supervision will be provided enabling the student to experience components of the professional and technical role. Participation as a member of the surgical team will be included.

Prerequisites: (NURS 3013 and NURS 3164 and NURS 3174).

**NURS 3263 Basic Concepts of Nursing Practicum: 3 semester hours.**

This clinical practicum provides an opportunity for the application of concepts and principles basic to nursing practice. Experiences are provided in a variety of agencies for the utilization of the nursing process in caring for individuals with health promotion needs and minor to moderate health alterations.

Prerequisites: BIOL 1054 and BIOL 1064 and CHEM 1053 and CHEM 1051 and BIOL 1073.

Co-requisites: NURS 3013, NURS 3023, NURS 3164.
NURS 3273 Adult Health Nursing I Practicum: 3 semester hours.
This clinical practicum course provides an opportunity for students to use the nursing process to provide care for clients with acute and chronic health alterations. Clinical experiences are provided in a variety of acute care settings. Prerequisites: NURS 3164 and NURS 3263. Co-requisites: NURS 3003, NURS 3174.

NURS 3284 Family Health Nursing Practicum: 4 semester hours.
This clinical practicum provides an opportunity for the student to apply concepts and principles of family health nursing in a variety of health care settings. Implementation of care for childbearing and childrearing families occur within the framework of this course. Prerequisites: NURS 3174 and NURS 3003 and NURS 3273. Co-requisites: NURS 3185, NURS 4013.

NURS 3323 Health Disparities: 3 semester hours.
This course will provide students with a comprehensive understanding of health disparities, including investigative approaches as well as strategies to address health disparities in minority and medically underserved populations.

NURS 3353 Camp Nursing: Care of Special Populations: 3 semester hours.
This course is designed to allow the undergraduate the opportunity to work with children who have asthma in an environment that emphasizes the wellness aspect of their health problem. The focus will be on the long term side effects, both emotional and physical effects of asthma and how to use the summer camp as an arena to increase education and self-esteem of the child. The clinical learning experiences take place in a camp setting for children with asthma. Prerequisites: (NURS 3174 and NURS 3003).

NURS 3363 Jurisprudence: Ethical implications in Nursing: 3 semester hours.
The Essentials of Baccalaureate Education for Professional Nursing Practice includes Professionalism and Professional Values as Essential VIII. It is clear and relevant that the values set forth by AACN, which also are the core values of bioethics, be incorporated in nursing education to enhance tolerance, patience, and compassion in a changing profession and a changing world.

NURS 3373 Environmental Health Nursing: 3 semester hours.
This course discusses concepts related to the environment and its role in health and in professional nursing. For all nursing students.

NURS 3383 Nusr w/o Borders:Global Health: 3 semester hours.
This is a lecture/lab course that focuses on a holistic approach to nursing care of families and cultural groups. Emphasis is placed on the nurse’s role in health promotion, health maintenance and illness prevention in families from cultures in a national and international setting. Environmental influences on the family are explored. Prerequisites: NURS 3003 and NURS 3024.

NURS 3393 Academic Strategies for Nursing Students Success: 3 semester hours.
This course is designed to provide nursing students with evidence-based study strategies to empower the learner for application and mastery of complex concepts for successful management and progression in the nursing major.

NURS 3413 Dosage Calculations Tools: 3 semester hours.
This course focuses on providing the student additional mathematical skills needed to successfully pass the dosage calculations examinations given with each clinical practicum course in the nursing program. The course includes face to face interactions with the faculty facilitator, in-class math computations, and implementation of critical thinking and test-taking skills needed to perform math calculations and successfully pass dosage calculations exams.

NURS 3423 Exploring Concepts of Patient Care across the Lifespan: 3 semester hours.
This elective will assist first level nursing students to apply concepts of biophyso-psychosocial functioning and beginning clinical reasoning skills for patient care across the lifespan.

NURS 4003 Concepts of Professional Nursing Practice: 3 semester hours.
This course is designed to assist the RN student make the transition to the University setting at the undergraduate and graduate level. The learner will be introduced to the knowledge, values, evidence based practice, health policy and conceptual models which guide the practice of nursing in a variety of settings. Ethical and legal principles which guide nursing practice will be explored.

NURS 4013 Introduction to the Research Process: 3 semester hours.
This course discusses basic research methodology and its application to the practice of nursing. Computer aids to research are considered. Prerequisite: Completion of Semester II. Prerequisites: NURS 3174 and NURS 3003 and NURS 3273.

NURS 4032 Trends and Issues in Professional Nursing: 2 semester hours.
This course explores legal and ethical issues using a decision making framework to guide the practice of nursing. Professional nursing employment opportunities and development of a professional portfolio will also be included. Prerequisites: NURS 4173.
**NURS 4093 Community/Leadership Nursing: 3 semester hours.**
This course focuses on the synthesis of public health and nursing concepts within a preventive framework to promote and maintain the health of families and communities. The course will also focus on leadership and management roles in various health care delivery systems and the theories related to change and organizational structure.
Prerequisites: NURS 4293 (may be taken concurrently).

**NURS 4163 Mental Health Nursing: 3 semester hours.**
This course focuses on the application of the nursing process in providing care to clients experiencing psychopathological conditions along the wellness-illness continuum.
Prerequisites: NURS 3185 and NURS 3284.
Co-requisite: NURS 4262.

**NURS 4173 Community Health Nursing: 3 semester hours.**
This theory course focuses on the synthesis of public health concepts within a preventive framework to promote and maintain the health of communities. The nursing process is used in community assessment, risk identification and application of community health nursing strategies.
Prerequisites: NURS 4163 and NURS 4183 and NURS 4262 and NURS 4282.
Co-requisites: NURS 4193, NURS 4272, NURS 4292.

**NURS 4183 Adult Health Nursing II: 3 semester hours.**
This theory course emphasizes the utilization of the nursing process in providing care for clients experiencing major physiological deviations from wellness. Nursing care of clients with multi-system complex health alterations is explored.
Prerequisites: NURS 3185 and NURS 3284.
Co-requisite: NURS 4282.

**NURS 4193 Nursing Leadership and Management: 3 semester hours.**
This theory course focuses on concepts and principles of leadership and management. Functions of beginning nurse management roles are explored.
Prerequisites: (NURS 4183 and NURS 4163) and NURS 4262 and NURS 4282.
Co-requisites: NURS 4173, NURS 4272, NURS 4292.

**NURS 4223 Palliative Nursing Care: 3 semester hours.**
This theory course emphasizes the utilization of the nursing process in providing palliative care for clients with chronic or terminal illnesses up to the end of life. Supportive and compassionate therapies of clients and their families will be emphasized.

**NURS 4262 Mental Health Nursing Practicum: 2 semester hours.**
This clinical practicum course focuses on the application of the nursing process when providing health, promotion, protection, and restoration care for culturally diverse individuals, groups and families at varying levels of risk for psychological impairment in a variety of clinical settings.
Prerequisites: NURS 3185 and NURS 3284.
Co-requisite: NURS 4163.

**NURS 4272 Community Health Nursing Practicum: 2 semester hours.**
This clinical practicum provides the student an opportunity to synthesize the nursing process with public health concepts in the nursing care of individuals, families, groups and communities with a focus on preventive nursing care.
Prerequisites: NURS 4183 and NURS 4163 and NURS 4262 and NURS 4282.
Co-requisites: NURS 4173, NURS 4193, NURS 4292.

**NURS 4282 Adult Health Nursing II Practicum: 2 semester hours.**
This clinical practicum course provides an opportunity for students to apply the nursing process when caring for clients with multi-system complex health alterations. Clinical experiences in a variety of settings are used.
Prerequisites: NURS 3185 and NURS 3284.
Co-requisite: NURS 4183.

**NURS 4292 Nursing Leadership and Management Practicum: 2 semester hours.**
This clinical practicum provides an opportunity for the transition of nursing students into professional nursing practice. Students will apply leadership and management principles and concepts to patient care coordinator of care, and functions of health care organizations.
Prerequisites: (NURS 4183 and NURS 4163) and NURS 4262 and NURS 4282.
Co-requisites: NURS 4173, NURS 4193, NURS 4272.

**NURS 4293 Community/Leadership Practicum: 3 semester hours.**
This clinical course emphasizes the nursing process in the application of community, leadership, and management concepts in planning, implementing, and directing nursing care for groups of clients and families from diverse populations.
Prerequisites: NURS 4093 (may be taken concurrently).

**NURS 4313 Nursing and Cultural Diversity: 3 semester hours.**
This course examines application of the nursing process as it relates to selected cultures. The primary concerns will be diverse communication systems and cultural norms within the health care delivery system.
NURS 4323 Introduction to Disaster/Emergency Preparedness and Response: 3 semester hours.
This course provides a foundation in the principles of disaster planning and management from a disaster team perspective. The roles of different members of the disaster team are examined with a focus on the role of the nurse. Various classifications of disasters, including natural and human-made disasters, are identified and defined and various biological, chemical and nuclear agents are discussed. Nursing care of physical injuries and psychological/behavioral manifestations of disaster victims and workers involved in natural and man-made disasters are highlighted.

NURS 4353 Advanced Nursing Concepts: 3 semester hours.
This course explores advanced clinical and theoretical issues relating to nursing practice. Prerequisites: (NURS 3185 and NURS 3284).

NURS 4373 Nursing and the Aged: 3 semester hours.
This course examines the utilization of the nursing process with aged clients. Major problems of aging are emphasized.

NURS 4383 Patient Education and Nursing Practice: 3 semester hours.
This course discusses patient education relative to the prevention of illness and to the maintenance and restoration of health.

NURS 4403 Nursing Process Seminar: 3 semester hours.
This course culminates professional socialization by focusing on the integration of behaviors essential in the transition from nursing student to professional nursing. Comprehensive review and evaluation of essential concepts and principles within the professional knowledge base including adult health, maternal/child, mental health, community health, and management. Prerequisites: (NURS 4163 and NURS 4183) and NURS 4262 and NURS 4282.

NURS 4993 Independent Study: 1-3 semester hour.
Selected topics are explored through reading, research, and/or field work.

NURS 5003 Transcultural Family Health Care in Rural and Urban Settings: 3 semester hours.
Explores the cultural dimension of health care delivery in urban and rural settings. Emphasis is placed on examining concepts including health promotion, epidemiology and vulnerable populations. Opportunities are provided to apply theories from family studies, public health, community health nursing and primary health care to empower families and communities to promote healthy lifestyles.

NURS 5013 Theoretical Foundations of Nursing: 3 semester hours.
Presents theoretical foundations for nursing. Explores relationships between theories and advanced practice nursing. Examines various theories in nursing practice and other health care disciplines.

NURS 5023 Advanced Pharmacology: 3 semester hours.
Provides a comprehensive understanding of the therapeutic use of major drug classifications for clients of all ages. Emphasis is on the application of drug therapy to the promotion of health and the treatment of disease. Advanced pharmacodynamics and pharmacokinetic principles will be analyzed.

NURS 5033 Advanced Pathophysiology: 3 semester hours.
Advanced study of physiological and pathological processes at biochemical, cellular, organ and system levels. Course content includes biologic variations and susceptibility to pathology across different ethnic groups and specific populations.

NURS 5042 Role Theory and Ethics in Advanced Practice Nursing: 2 semester hours.
Role theory is utilized for analyzing the dimensions of the role of the APN in management of health care problems for vulnerable/minority individuals, families, and urban/rural communities. Ethical and legal decision-making models are explored to promote role transition and integration.

NURS 5123 Health Disparities: 3 semester hours.
The elective course will provide students with a comprehensive understanding of health disparities including investigative approaches as well as strategies for addressing health disparities in minority and medically underserved populations.

NURS 5133 Clinical Research: 3 semester hours.
The course focuses on the use of research methodologies to analyze nursing practice problems for a population of diverse ethnic and socio-economic backgrounds. The interrelationship between theory, practice and evidenced-based research, and the use of nursing knowledge for the improvement of clinical outcomes is emphasized. Review of major research designs, methods, and ethical requirements of scientific inquiry are addressed. Prerequisites: NURS 5013 (may be taken concurrently).

NURS 5163 Advanced Pathophysiology for Advance Practice Nursing: 3 semester hours.
This course is used to guide the advance practice nursing student in interpreting changes in normal function that result in symptoms indicative of illness. Study of the physiological and pathophysiological processes that are a basis for advanced nursing practice. The emphasis is placed on the genetic, molecular, cellular and organ system levels across various groups and populations.

NURS 5173 Advanced Pharmacology for Advance Practice Nursing: 3 semester hours.
This course is to provide the APN graduate with the knowledge and skills to assess, diagnose, and manage patients' common health problems. Course theory content includes pharmacotherapeutics and pharmacokinetics of broad categories of pharmacologic agents. Evidence-based research provides the basis for selecting effective, safe and cost-efficient pharmacologic regimens.
NURS 5203 Medical Coding Bill & Reimbur: 3 semester hours.
This course is to help the Nurse Practitioner on how to maximize reimbursement by emphasizing proper coding, billing and HIPPA compliance. The Nurse Practitioner will learn about medical necessity bundled services, modifiers, and efficient ways to be compliant while getting the maximum reimbursement due for services performed. The NP provider will ensure complete and comprehensive documentation and coding and billing of all services rendered. Participants will learn to confidently code and audit APT, HCPCs and ICD-9 codes. Particular attention will be paid to evaluation and management coding.

NURS 5213 Diagnostic Procedures: 3 semester hours.
This course focuses on the development of evidence-based primary care diagnostic and therapeutic procedures for advanced practice registered nurses to use in practice. Multiple types of clinical applications are utilized to expand student's knowledge and proficiency in primary care clinical procedures. A structured 4-hour practice laboratory per week is a course requirement.

NURS 5216 Primary Health Care for the Childbearing/Childrearing Family with Practicum: 6 semester hours.
This combined theory and practicum course focuses on the role of the family nurse practitioner in caring for childbearing and childrearing families from diverse populations. Emphasis is placed on health promotion/maintenance, health risk assessment and acute symptoms management. Growth and development and psychosocial stages and tasks are presented.
Prerequisites: NURS 5163 and NURS 5173 and NURS 5263 and NURS 5245.

NURS 5223 Chronic Disease Self-Management: 3 semester hours.
The course focuses on the development of skills for evidence-based methods of patient education and counseling for advanced nursing practice. Multiple types of clinical applications are utilized to expand student’s knowledge and proficiency in patient education of chronic diseases. The course work includes 60 hours of experiential application of Chronic Disease Self-Management education and counseling. A structural clinical laboratory and/or 4-hour clinical practicum per week in an urban or rural setting is a course requirement.

NURS 5243 Advanced Health Assessment: 3 semester hours.
Builds upon basic physical assessment and history taking skills by increasing the depth and breadth of student knowledge related to the principles and techniques of interviewing, screening, and physical assessment across the lifespan. A structured 4-hour labor of practicum experience per week is a course requirement.

NURS 5245 Primary Health Care for the Adult and Elderly with Practicum: 5 semester hours.
This combined theory and practicum course focuses on the role of the family nurse practitioner in the management of the adult and elderly client in urban or rural communities. The emphasis is placed on health risk assessment, health maintenance/restoration and management of acute and chronic problems. Includes practicum experiences in a variety of settings.
Prerequisites: (NURS 5023 and NURS 5033 and NURS 5214).

NURS 5257 Management of Complex Health Problems: 7 semester hours.
In this course, the student uses theoretical, scientific, and current clinical knowledge for the assessment and management of clients with complex health problems in selected vulnerable populations. Topics will include management of complex diseases, role implementation, research utilization, decision-making, consultation and referral for APN practice.
Prerequisites: (NURS 5245 and NURS 5215).

NURS 5263 Advanced Health Assessment and Diagnostic Reasoning for Advanced Practice Nursing: 3 semester hours.
Building upon previously acquired physical assessment and history taking skills, this course prepares graduate advanced practice nursing students to obtain a meaningful history and to integrate it with physical findings to develop a problem list. Interpretation of selected diagnostic tests and differential diagnoses. Analyze diagnostic reasoning models and apply to advanced practice nursing contexts.
Prerequisites: NURS 5003 and NURS 5163 and NURS 5133.
Co-requisites: NURS 5042, NURS 5173.

NURS 5303 Program & Curriculum Design: 3 semester hours.
The focus of this course is on curricula design and development. Students will examine the principles of curriculum and program design, factors that affect curriculum, philosophies, conceptual frameworks, curriculum models, and curriculum evaluation. Emphasis will be placed on the relationship between philosophy, program goals, objectives and content.
Prerequisites: (NURS 5013 and NURS 5133 and NURS 5023 and NURS 5033 and NURS 5042).

NURS 5313 Instructional Methods & Strategies: 3 semester hours.
The student examines various teaching strategies and methods, educational theories, principles of learning, and theories relevant to the instructional process will be discussed. Emphasis will be placed on classroom and clinical teaching, supervision and management of the learning environment. Teaching using technology will be a major focus.
Prerequisites: NURS 5303.

NURS 5322 Evaluation in Nursing Education: 3 semester hours.
This course focuses on evaluation techniques and strategies. The design and use of evaluation tools in classroom and clinical evaluation will be discussed. The identification and evaluation of clinical competencies will be an area of focus. Test development, measurement and the use of evaluation instruments will be examined. Emphasis is placed on evaluation measures such as standardized tests and item analysis of teacher made test.
Prerequisites: (NURS 5303 and NURS 5313).
NURS 5333 Nursing Education Role Practicum I: Classroom Instruction: 3 semester hours.
This course emphasizes the integration of knowledge from curriculum design, strategies and evaluation into the role of nurse educator. Students are provided experiences in the classroom settings to develop knowledge, apply theories, learning principles and evidence based teaching and evaluation strategies under the direction of a faculty preceptor.
Prerequisites: (NURS 5303 and NURS 5313 and NURS 5323 (may be taken concurrently)).

NURS 5343 Teaching in Nursing with Tech: 3 semester hours.
The course will focus on the use of technology for effective teaching and presentations. The goal of the course is to assist the learner in the infusion of instructional design, media, computers, and related web based technologies into the instructional process. Emphasis will be placed on using technology to enhance presentations.

NURS 5353 Nursing Education Role Practicum II: Clinical Instruction: 3 semester hours.
This course focuses on the application of teaching, learning and evaluation strategies in the clinical setting. Students are provided the experiences in the clinical setting to apply theories, models, skills, learning principles and develop attributes essential to the role of nurse educators in academic and clinical settings. Emphasis is placed on assessment and evaluation of learning outcomes.
Prerequisites: NURS 5303 and NURS 5313 and NURS 5323.

NURS 5363 Clinical Simulations in Nursing Education and Practice: 3 semester hours.
This course will focus on the theoretical and technical knowledge and skills needed to plan, design, and implement simulated learning activities in the educational and healthcare settings. Emphasis will be placed on best practices in the use of clinical simulations as a virtual learning modality.

NURS 5403 ADM I-Organizational Theory: 3 semester hours.
This course examines organizational concepts, theories, and behavior relevant to Nurse Administration, management and healthcare delivery systems. Major topics include management principles, organizational processes, conflict and change process. Discussion will include management philosophy, structure, legal and ethical concerns.
Prerequisites: (NURS 5003 and NURS 5013 and NURS 5133 and NURS 5042).

NURS 5413 ADM II-Healthcare Management: 3 semester hours.
The focus of this course is on healthcare management issues and strategies: Healthcare of individual populations, case management, health promotion, disease management, standards of care, cost, quality, health indicators, and disparities. Human Resource Management, including data management and informatics will be emphasized.
Prerequisites: NURS 5403.

NURS 5423 ADM III-Healthcare Economics and Financial Management: 3 semester hours.
This course focuses on economics and financing in healthcare delivery systems. Major topics include budget preparation and fiscal management within an organizational structure. Emphasis will be placed on the use of databases, spreadsheets and other software applications to the budgetary process. Insurance providers, impact of consumers, cost and benefits, state and federal regulations, legal and ethical issues will also be included.
Prerequisites: (NURS 5403 and NURS 5413).

NURS 5433 ADM IV - Nurse Administration Practicum: 3 semester hours.
A practicum experience designed for synthesis of theory and practice. Practicum will include group seminar, observational and independent learning activities. Practicum experiences will be directed toward the student's career goals.
Prerequisites: (NURS 5403 and NURS 5413 and NURS 5423).

NURS 5443 Health Informatics I: 3 semester hours.
This course is designed to introduce the foundation of health care informatics to the advanced practice nurse. The focus is on developing an understanding of the core concepts of health care informatics and correlating these to the practice of nursing informatics. The history, use, design, management, and ethics of health care information systems will be examined with attention to current issues and trends impacting the profession of nursing.

NURS 5453 Health Informatics II: 3 semester hours.
The purpose of this course is to assist the advanced practice nurse in developing an understanding of the components, processes and tools that complete components of health information systems. Advanced topics in information technology and systems in a health care setting; collection, analysis and management of health care data; special topics related to the role of project management will be explored.

NURS 5463 Health Informatics III: 3 semester hours.
The course introduces concepts of human factors design, specifically human computer interaction and ergonomics, and applies them to interface design in healthcare. This includes the user interface design of medical devices, health related websites, and health information systems. This course examines principles, theories and models to design and evaluate optimal interfaces to promote human computer interaction in healthcare informatics and applications.

NURS 5713 Health Policy: 3 semester hours.
This course focuses on the development of health care policy. Current, local, state, and national issues influencing health policies are reviewed. Health care delivery models are explored as well as the concepts of power, political action, activism and networking. Major health policy issues facing advanced practice nursing in the 21st century are considered.

NURS 5723 Family Violence: 3 semester hours.
Explores the prevalence of violence and abuse in families and the impact of violence and abuse on the health care system. Focuses on the research findings related to prevention, assessment, and intervention with offenders, victims and families.
NURS 5743 Writing for Publication: 3 semester hours.
Designed to help students understand the publication process and to improve scholarly writing abilities. Each student will prepare a manuscript and submit it to a selected nursing journal for publication consideration. Students are encouraged to have a topic and target journal identified before class begins.
Prerequisites: (NURS 5013 and NURS 5133).

NURS 5763 Financial Management in Advanced Nursing Practice: 3 semester hours.
This course focuses on health care financing at the local, state and national levels as well as the concepts of reimbursement, contract, negotiation, and partnerships in practice. Cost effective analysis is explored as a tool to examine cost and outcomes for the care diverse populations.
Prerequisites: NURS 5245.
Co-requisite: NURS 5216.

NURS 5773 Capstone Proposal Writing and Project Development: 3 semester hours.
This course provides students the opportunity to integrate and synthesize knowledge gained in the graduate nursing program into the practice setting with directed study in an area of interest.
Prerequisites: NURS 5013 and NURS 5133 and CNSL 5093 and NURS 5003 and NURS 5042 and NURS 5713 and NURS 5033 and NURS 5023.

NURS 5783 Research Capstone Project: 3 semester hours.
The research capstone project is the scholarly alternative to the thesis. The project provides students the opportunity to use the research process to investigate a problem in clinical practice, nursing education or administration. This course is a faculty guided experience that requires synthesis of nursing theory, research, and practice into an oral presentation and written research paper.
Prerequisites: NURS 5013 and NURS 5133.

NURS 5803 Thesis Proposal Writing: 3 semester hours.
Concepts of research techniques and designs are explored. A research proposal is developed.

NURS 5903 Thesis: 3 semester hours.
Application of research skills to thoroughly develop thesis on topic approved by advisor.
Prerequisites: NURS 5803.

NURS 5983 Special Topics: 3 semester hours.
Exploration of a single topic not covered in the graduate curriculum (i.e. curriculum development, curriculum evaluation, and skills practicum) but related to Health Care and/or Nursing.

NURS 5993 Independent Study: 1-3 semester hour.
Provides an opportunity for the student to engage in independent study in an area of interest.

NURS 7003 Scientific Writing: 3 semester hours.
Scientific writing is the formal writing process utilized in academic settings for manuscript preparation, grant proposals, as well as thesis and dissertation development. The purpose of this course is to provide graduate students with a formal writing experience in an academic or administrative setting. Legal and ethical issues related to plagiarism and professional collaboration will be applied. At the end of the course the learner will have the opportunity to experience the process of developing a formal writing product moving from an outline to a finished written product.

NURS 7013 Nursing Science and Complex Systems: 3 semester hours.
This course introduces students to systems theory in complex organizations. Students share knowledge of the health care systems and broad-based thinking and human networking of care delivery systems in response to the demands of nursing practice considering the legal and ethical issues of practice. The occurrence of change as a dynamic gauge will enable students to fit relationships with emerging new challenges, transition and interfacing with systems, management of conflict, medication and interventions. Sharing the impact of global technology in transforming knowledge and communication in the complex adaptive systems of universal health amidst health system constraints will be essential.

NURS 7023 Leadership in Complex Health Systems: 3 semester hours.
This course focuses on organizational theories and principles in a complex health care environment along with the use of technological innovations and considers the legal and ethical issues in education, administration and clinical practice. Emphasis is placed on managing complex health care systems in a global environment. The societal and organizational influences related to managing complex health care organization are examined and the legal and ethical issues in education, administration and clinical practice.

NURS 7033 Health Care Policy for Advocacy in Health Care: 3 semester hours.
This course is prepares DNP graduate to assume a leadership role in the designing, implementing and advocating for health care policies that impact health financing, regulation of nursing practice, and the delivery of safe, effective quality care to clients. Methods that can be used to integrate health care policies into nursing practice will be explored on the basis of legal and ethical principles. Students will be provided the opportunity to interact with individuals responsible for health care policies on the local, state, and national level.

NURS 7043 Health Informatics: Systems Management of Health Data: 3 semester hours.
This course provides students with the opportunity to explore health information technology from a systems perspective and as a disruptive technology. The content spans the health informatics discipline from bioinformatics through clinical applications and to the population level of public health informatics. Health informatics is presented as inter-disciplinary, inter-professional and collaborative. Students are exposed to the use of data, information and knowledge and their application in the discipline.
**NURS 7053 Evidence-based practice (Qualitative & Quantitative Methods): 3 semester hours.**
This course focuses on the utilization of evidence to guide education administration and clinical practice. The leadership role of the APN in the translation of research into practice, the evaluation of practice, and the improvement in patient outcomes based on evidence will be emphasized. The role of the APN in generating evidence through their practice will also be discussed. During this course the student will assess practice quality, critically analyze evidence, apply research evidence to issues of current health care delivery using appropriate practice, legal and ethical guidelines.

**NURS 7113 Resource Management: 3 semester hours.**
The design and execution of strategies to manage human and financial resources within complex health systems is the focus. The course assists students with strategic conceptualization and application to manage an organization's human and financial assets, implementation of these strategies to achieve the organization's objectives. This course is structured to help the student move from conceptual ideas to practical application.

**NURS 7123 Emerging Technologies and the Teaching/Learning Process: 3 semester hours.**
This course will focus on technology and its application in nursing education and the practice environment. Emphasis will be placed on emerging technology that could have a significant impact on teaching, learning, nursing practice and scholarship. Technologies that may be included are social computing, mobile computing, web based strategies, virtual worlds, simulation, and learning management systems. The course content will change over time as emerging technologies become available and affect teaching, learning and creative expression in higher education.

**NURS 7133 Nursing Education Teaching/Learning Modalities: 3 semester hours.**
This course focuses on the application of teaching/learning theories in both traditional and electronic classroom and clinical practice section. Students will be able to develop instructional and educational material, present them in a variety of educational settings as well as evaluate the effectiveness of instructional strategies. Application of emerging technologies available for learning and instruction will be explored.

**NURS 7143 Analytical Approaches to Outcomes Management: Individuals and Populations: 3 semester hours.**
This course prepares the student to analyze epidemiological, biostatistical, environmental, and other appropriate data related to individual, aggregate, and population health. Students will learn business and economic procedures for analysis of cost effective initiatives to improve quality and safety of health care outcomes. Organization of relevant variables for place in databases, identification of appropriate analyses for health-related questions, and synthesis of diverse approaches to understanding health problems in the literature will be integrated into coursework.

**NURS 7153 Informatics for Using Telehealth in Nursing Practice: 3 semester hours.**
This course focuses on the use of telehealth technologies to delivery health care and services to clients in rural and underserved areas with limited nursing resources. Technology designed to view, send, and store video and digital image, perform patient assessments, patient teaching, and collaborate with other health care professionals using video conferencing and computer applications will be explored. Legal and ethical issues associated with the use of telehealth applications will be discussed.

**NURS 7243 Translating Evidence into Advanced Nursing Practice: 3 semester hours.**
This course focuses on the integration and application of knowledge into practice. The translation of evidence into practice, including the theoretical and practical challenges, is analyzed through the use of case studies with consideration of legal and ethical principles. Specifically, theories of change, theories of caring, human needs and value systems, financial, ethical and social implications are considered in the translation of evidence into practice. Translation techniques, including informatics, will be discussed. Evaluation strategies, methods and analysis will be applied to assess proposed improvements in practice and care outcomes.

**NURS 7253 DNP Project 1: 3 semester hours.**
This course is part of a two semester sequence with stipulated guidelines and required of all DNP students. The course focuses on the initial development of a capstone project including review of problem statement, review of the literature, objective, project activities, project timeline, resources, and evaluation strategies. It also includes process and outcome evaluation, budget development, and measurement tools. The project may include financial/management, clinical, or educational components as appropriate. The project will be developed under the supervision of the student's DNP project committee. May be repeated. If in progress "IP" grade received, continuous registration and enrollment in this course are required until course requirements are completed.

**NURS 7263 DNP Project 2: 3 semester hours.**
This course is the second part of a three semester sequence required of all DNP students. The course focuses on implementation of the DNP project that was planned and approved in NURS 7253 (DNP Project 1). Strategies to address challenges in the implementation of the capstone project will be explored. The collection and analysis of data to evaluate the outcomes of the capstone project is the culmination of this course. Students will also develop and present a comprehensive report describing their project, implementation, evaluation, results and future recommendations. May be repeated. If in progress "IP" grade received, continuous registration and enrollment in this course are required until course requirements are completed. Prerequisites: NURS 7253.

**NURS 7303 Program and Curriculum Design: 3 semester hours.**
The focus of this course is on curricula design and development. Students will examine principles of curriculum and program design, factors that affect curriculum, philosophies, conceptual frameworks, models and evaluation. Emphasis is placed on the relationship between philosophy, program outcomes and the accreditation process.

**NURS 7323 Evaluation and Measurement: 3 semester hours.**
This course focuses on techniques and methods for evaluating learning outcomes. Emphasis will be placed on program evaluation measures. The design and use of evaluation tools classroom and clinical evaluation will be discussed. Test development, measurement and the use of evaluation instruments will be examined. Evaluation measures, standardized tests and item analysis of teacher made tests will be an area of focus.
NURS 7383 Practice Residency I: 3 semester hours.
This is one of two clinical residency courses providing for synthesis experiences with a clinical coach in the student's advanced practice specialization, practice/administration or both. Students will synthesize concepts from biophysical, psychosocial, sociopolitical, culture, economic, and nursing science to impact and understand the consequences of advanced practice decisions. May be repeated. If in progress "IP" grade received, continuous registration and enrollment in this course are required until course requirements are completed.

NURS 7393 Practice Residency II: 3 semester hours.
This course is the continuation of the clinical residency. Utilizing newly acquired knowledge, students will appraise their current practice environments as appropriate to the student's practice agenda. The student will also continue to work with his or her clinical mentor. May be repeated. If in progress "IP" grade received, continuous registration and enrollment in this course are required until course requirements are completed.
Prerequisites: NURS 7383.

Philosophy (PHIL)

Courses

PHIL 2013 Introduction to Philosophy: 3 semester hours.
Examination of selected philosophical readings concerning the theory of knowledge, the nature of being, the theory of values, social ideals and religion and other philosophical problems and issues. Reading will be taken from original western and nonwestern sources.

PHIL 2023 Ethics: 3 semester hours.
Combines the philosophical study of normative ethics with the study of contemporary applied ethics through examination of a number of tendencies and schools of ethics from various cultures, societies and historical periods. The aim of the course is to enhance the student's awareness and sensitivity to the perplexity of morality and the moral life.
Prerequisites: ENGL 1123.

PHIL 2303 Critical Thinking: 3 semester hours.
Course is designed to develop students' ability to recognize and evaluate arguments. Focus will include: The most frequently encountered fallacies and errors in reasoning; the use/abuse of statistics; and principles of logic applied to daily life.
Prerequisites: ENGL 1123.

PHIL 3023 History of Philosophy: 3 semester hours.
A survey of the major philosophers and philosophical problems from the Pre-Socratic through Modern Philosophy (600 B.C.E.-1600 A.C.E.) using primary texts. Among the philosophers studied are Zeno, Socrates, Plato, Aristotle, Augustine, and Duns Scotus.
Prerequisites: PHIL 2013.

Physical Education (PHED)

Courses

PHED 5103 Psychology of Motor Learning: 3 semester hours.
Learning process in motor skills as the foundation of teaching methods in physical education activities. Practical experience in testing theories.

PHED 5113 Supervision in Physical Education: 3 semester hours.
Study of principles and practices of educational supervision and their application to physical education.

PHED 5123 Scientific Foundations of Physical Education: 3 semester hours.
Study of the scientific foundations of physical activity as they relate to biological, psychological, sociological, and biomechanical factors in the teaching of physical education.

PHED 5133 Physical Education Curriculum: 3 semester hours.
Study of activities, aims, objectives, and outcomes as they relate to courses and their construction. Development of a course of study based on individual student needs.

PHED 5143 Sociol Of Sport: 3 semester hours.
The reasons for studying sport are reviewed, and they include personal development, scholarly study, and professional practice. Since sport is so pervasive in U.S. society, studying its effects and its contribution to society is important. Through studying sport we can recognize historical precedents in sport, health, and physical activity. The sport sciences are categorized in three domains: (1) biophysical, (2) psychosocial, and (3) sociocultural. These three domains contain 10 individual sport sciences, which are integrated and allow us to better use and interpret our knowledge.

PHED 5203 Physiology of Muscular Exercises: 3 semester hours.
Physiological effects of exercise upon the body. Basic physiological concepts and their relation to the total physical education program.

PHED 5303 Research Methods: 3 semester hours.
Design and methodologies for health education and physical education. Data collection, statistical applications, analyses, interpretation for evaluation and reporting.

PHED 5343 Professional Preparation in Health, Physical Education, Recreation, and Dance: 3 semester hours.
Focus on professional preparation for those students who are teachers and/or administrators of health, physical education, recreation, or dance.
**PHED 5353 Mainstreaming in Health, Physical Education, Recreation, and Dance: 3 semester hours.**
Principles and methods of providing educational services for handicapped students in the least restrictive environment.

**PHED 5503 Teaching Physical Education: 3 semester hours.**
A study of traditional and innovative teaching techniques in physical education, including the practical application of teaching styles.

**PHED 5703 Kinesiology: 3 semester hours.**
Muscular and bone structure of the body in relation to the science of movement; joint mechanism and muscle action with special application to sports participation and training.

**PHED 5993 Independent Study: 1-3 semester hour.**
Readings, research and/or field work on selected topics.

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**Physical Science (PHSC)**

**Courses**

**PHSC 1121 Sci Lab: 1 semester hour.**
Physical science laboratory course designed to enhance knowledge of basic principles of physical science and physical processes in our environment. Selected topics on physics, chemistry, astronomy, meteorology and geology will be emphasized with attention directed to current applications and discoveries.

**PHSC 1123 Physical Science I: 3 semester hours.**
Emphasizes insight into basic physical science principles and practices. Topics include physics, chemistry, and earth science aspects dealing with the atmosphere, hydrosphere, and lithosphere.

**PHSC 2123 Physical Science II: 3 semester hours.**
An interdisciplinary examination of the physical and biological sciences. The course helps students understand how quantitative tools are used in modern scientific discovery. The course includes basic concepts of mechanics, chemistry, and astronomy. Prerequisites: PHSC 1123.

**PHSC 3083 Science of Everyday: 3 semester hours.**
A description of daily phenomena, demonstrating how science provides a basis for comprehending them and discusses relationships between various apparently unrelated phenomena.

**PHSC 3183 MOD PHYS SCI Teacher: 3 semester hours.**
Emphasizes insight into Modern Physics with an introduction to the physics of the 20th century with developments of the 21st century included.

**PHSC 3223 Introduction to Atmospheric Science: 3 semester hours.**
Structure of the atmosphere. Physical and chemical phenomena leading to atmospheric changes. Weather patterns and climate control. On-line Weather Studies course is included.

**PHSC 4011 Earth Science Lab: 1 semester hour.**
Laboratory to support PHSC 4013. Exercises include: classification of minerals and rock types; water testing and analysis; field work. Also covered will be online weather studies, analysis and interpretation of real-time meteorological data.

**PHSC 4013 Earth Science: 3 semester hours.**
Designed for science teachers in junior and senior high schools. It covers basic concepts of earth science and methods of teaching. The content covers a study of geology, meteorology, hydrology, petrology, and mineralogy. A study analysis and evaluation of some of the recent systems and techniques in the teaching of earth science. Elements from Online Weather Studies course are included. Prerequisites: PHSC 1123. Co-requisite: PHSC 4011.

**PHSC 4024 Astronomy and Geology: 4 semester hours.**
An introduction to earth science concepts with a more advanced approach involving research materials, including astronomy, geology, paleontology, and field experiences as content materials.

**PHSC 4163 Special Topics PHSC: 3 semester hours.**
Selected current and emerging topics in physical science. Courses may be repeated for credit when topics vary.

**PHSC 4993 Independent Study: 1-3 semester hour.**
Readings, research, and/or field work on selected topics.

**PHSC 4994 Independent Study: 1-4 semester hour.**
Readings, research, and/or field work on selected topics.
Physics (PHYS)

Courses

PHYS 1001 Physics as a Profession: 1 semester hour.
Introductory course in physics. Seminars and lectures on physics as a discipline, relationship of physics to other disciplines.

PHYS 2111 General Physics Lab I: 1 semester hour.
General physics laboratory on concepts of mechanics to include experiments on measurement, vectors-force table, air track, projectile motion, static and kinetic friction, ballistic pendulum, centripetal force, moment of inertia, Hooke's law and simple harmonic motion, standing waves and sound.
Prerequisites: PHYS 2113 (may be taken concurrently).

PHYS 2113 General Physics I: 3 semester hours.
An algebra and trigonometry based introduction to general physics with topics to include measurement system, motion, vector addition, Newton's laws of motion, statics, dynamics, mechanical energy, gravitation, momentum, circular and angular motion, and torque.
Prerequisites: MATH 1113 or MATH 1115 or MATH 1123.

PHYS 2121 General Physics Lab II: 1 semester hour.
General physics laboratory to include experiments on determination of absolute zero, linear expansion, calorimetry, force of static electricity, Ohm's Law, color-coded resistors, resistors in series and parallel, RC-series transient circuit, RLC-series circuit, AC circuits, concave and convex lenses, and diffraction gratings.
Prerequisites: PHYS 2113 and PHYS 2123 (may be taken concurrently).

PHYS 2123 General Physics II: 3 semester hours.
A continuation of algebra and trigonometry based General Physics I course includes sound, heat, electricity, magnetism, and optics.
Prerequisites: PHYS 2113 or PHYS 2513.

PHYS 2511 University Physics Lab I: 1 semester hour.
Calculus-based physics laboratory on concepts of mechanics to include experiments on measurement, vectors-force table, air track, projectile motion, static and kinetic friction, ballistic pendulum, centripetal force, moment of inertia, Hooke's law and simple harmonic motion, standing waves and sound.
Prerequisites: PHYS 2513 (may be taken concurrently).

PHYS 2513 University Physics I: 3 semester hours.
A calculus-based introductory physics course for science and engineering students. Course includes measurement, Newton's laws of motion statics, dynamics, mechanical energy, momentum, circular motion, and selected topics from torque, modules, Newton universal law, and fluid mechanics.
Prerequisites: MATH 1124.

PHYS 2521 University Physics Lab II: 1 semester hour.
Calculus-based physics laboratory to include experiments on determination of absolute zero, linear expansion, calorimetry, string standing waves, sound resonance, force of static electricity, Ohm's Law, color-coded resistors, resistors in series and parallel, RC-series transient circuit, RLC-series circuit, AC circuits, concave and convex lenses, and diffraction gratings.
Prerequisites: PHYS 2523 (may be taken concurrently).

PHYS 2523 University Physics II: 3 semester hours.
A continuation of PHYS 2513, a calculus-based introductory physics course for science and engineering students. Course includes electricity, magnetism, and selected topics from sound and light.
Prerequisites: PHYS 2513 and MATH 2024.

PHYS 3003 Physics Research Internship: 3 semester hours.
Internship for undergraduate majors in physics and for majors in applied physics related disciplines who are engaged in research/co-op in governmental or industrial labs.

PHYS 3073 Optics: 3 semester hours.
Course on geometrical optics, ray tracing, plane surfaces, spherical surfaces, thin lenses, thick lenses, mirrors, stops, lens aberrations, optical instruments, wave optics, interference, Fraunhofer and Fresnel diffraction, diffraction grating, speed of light measurements, absorption and scattering, polarization, etc.
Prerequisites: PHYS 2123 or PHYS 2523.

PHYS 3103 Mechanics I: 3 semester hours.
The course content includes elements of vector analysis, rectilinear motion of a particle, Newton's laws, damped and forced harmonic motion, Fourier series, motion of a particle in three dimensions, rotating coordinate systems, gravitation, central force motion.
Prerequisites: PHYS 2523.

PHYS 3113 Mechanics II: 3 semester hours.
A continuation of PHYS 3103. The course content includes motion of systems of particles, center of mass and moment of inertia of rigid bodies, moments and products of inertia, principal axes, Euler's equations, Lagrangian mechanics, coupled harmonic oscillators and normal coordinates, theory of vibrating systems.
Prerequisites: PHYS 3103.
PHYS 3123 Electricity and Magnetism I: 3 semester hours.
Basic theory of electrostatics; Coulomb's Law, Gauss's Theorem, simple potential theory, LaPlace's and Poisson's equations. Calculation of electric fields and potentials for point and continuous charge distributions. Computer-based demonstrations are included.
Prerequisites: PHYS 2523.

PHYS 3133 Electricity and Magnetism II: 3 semester hours.
A continuation of PHYS 3123. Theory of metallic conduction of electricity. Ohm's Law, Kirchhoff's Law, electromagnetic induction, Maxwell's Equations, A.C. circuits and electromagnetic radiation; appropriate demonstrations to complement the theory. Computer-based demonstrations are included.
Prerequisites: PHYS 3123.

PHYS 3163 Mathematical Physics I: 3 semester hours.
Advanced mathematics for physicists and engineers; vector analysis, curvilinear coordinates, tensor analysis, matrices and determinants, infinite series, functions of a complex variable. Emphasis throughout is on practical applications of theory and techniques as applied to problems in physics and engineering. Computer programs such as Mathematica and MAT LAB will be used.
Prerequisites: PHYS 2523.

PHYS 3173 Mathematical Physics II: 3 semester hours.
A continuation of PHYS 3163. Course topics include second-order differential equations, orthogonal functions, Fourier series and integrals, gamma functions, La Place transforms, Bessel special functions, Greens functions, calculus of variations. Computer programs such as Mathematica and MAT LAB will be used.
Prerequisites: PHYS 3163.

PHYS 3183 Modern Physics I: 3 semester hours.
Course content includes relativity, wave-particle duality, atomic structure, quantum mechanics, and quantum theory of the hydrogen atom.
Prerequisites: PHYS 2523.

PHYS 3193 Modern Physics II: 3 semester hours.
A continuation of PHYS 3183 to include many-electron atoms, molecules, statistical mechanics, the solid state, the atomic nucleus, radioactivity, nuclear reactions, elementary particles.
Prerequisites: PHYS 3183.

PHYS 3243 Introduction to Nuclear, Particle and Radiation Physics: 3 semester hours.
Nuclear models, nuclear reactions, fundamentals of particle physics, classification of radiation particles, radiation transport, radiation scattering, radiation decay, radiation measurement, and radiation effects.
Prerequisites: PHYS 2523.

PHYS 3323 Physics of Medical Imaging: 3 semester hours.
Provides an introduction to physics of imaging relevant to medical applications, including image storage analysis, compression, and retrieval. Computer applications including vision and visualization concepts for medical applications. Telemedicine applications.
Prerequisites: PHYS 2523.

PHYS 4023 Introductory Quantum Mechanics I: 3 semester hours.
Inadequacy of classical mechanics, wave-particle duality, wave function, uncertainty relation, Schrodinger equation, expectation values, operator formalism, measurement, the correspondence principle, etc.
Prerequisites: PHYS 2523.

PHYS 4033 Introductory Quantum Mechanics II: 3 semester hours.
A continuation of PHYS 4023. Exclusion principle, angular momentum, central forces, matrix representations of wave functions and operators, spin, eigenvalue equations, perturbation theory, Zeeman effect, quantum-statistical mechanics, etc.
Prerequisites: PHYS 4023.

PHYS 4043 Astronomy and Astrophysics: 3 semester hours.
An intermediate level Physics/Physical Science course including Kepler's laws, law of gravitation, earth, moon, solar system, sun stars, stellar evolution, nucleo-synthesis, quarks to quasars, pulsars, nebulae, black holes, orbital transfers, cosmology. Simulation programs will be used.
Prerequisites: PHYS 2523.

PHYS 4063 Thermodynamics and Statistical Mechanics I: 3 semester hours.
Macroscopic thermodynamic systems, kinetic theory, black body radiation, classical and quantum statistical mechanics to include Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac Statistics.
Prerequisites: PHYS 2523 and PHYS 2123.

PHYS 4073 Thermodynamics and Statistical Mechanics II: 3 semester hours.
A continuation of PHYS 4063 to include quantum statistical mechanics, approximate methods, master equation, phase transitions, Ising model, Onsager solution, Landau theory, Mean-Field theory, block spin and renormalization group approaches.
Prerequisites: PHYS 4063.

PHYS 4103 Advanced Physics Lab: 3 semester hours.
Computational physics modeling and simulations; several types of physics problem modeled and solved; software including Mathematica, MA TLAB, Numerical Recipes, Electronics Workbench, will be utilized.
Prerequisites: PHYS 2523.
**PHYS 4163 Special Topics PHYS: 3 semester hours.**
Selected current and emerging topics in Physics. Courses may be repeated for credit when topics vary.

**PHYS 4473 Senior Research Project: 3 semester hours.**
Capstone Team Based Project. Covers integrated project team concepts, ethics, responsibility, fiscal aspects, culminating in a comprehensive report and a presentation.

**PHYS 4911 Physics Research Project: 1 semester hour.**
The first half of a two semester sequence. A research project with a faculty advisor or mentor. Includes literature survey preparation and initiation of a research project.
Prerequisites: PHYS 3183.

**PHYS 4921 Physics Research Seminar: 1 semester hour.**
The second half of a two semester sequence. A research project with a faculty advisor or mentor. Continues the initiated research from the earlier course (PHYS 4911) towards a research publication.
Prerequisites: PHYS 4911.

**PHYS 4993 Independent Study: 1-3 semester hour.**
Readings, research, and/or field work on selected topics.

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**Political Science (POSC)**

**Courses**

**POSC 1113 American Government: 3 semester hours.**
Surveys the origin and development of the U.S. Constitution; the structure and powers of the national government including the legislative, executive, and judicial branches; federalism; areas of political participation; the national election process; public policy; civil liberties and civil rights.

**POSC 1123 Texas Government: 3 semester hours.**
Surveys the origin and development of the Texas Constitution; the structure and powers of Texas Government, including the legislative, executive, and judicial branches; local government; areas of political participation and public policy in Texas.

**POSC 2113 Political Parties and Elections: 3 semester hours.**
This course is designed to study the nature, functions, evolution, and organization of the American political parties and elections.

**POSC 2123 Public Administration: 3 semester hours.**
This course provides an examination of the organization, responsibility, personnel management, fiscal processes, functions, and problems of public administration.

**POSC 2133 Introduction to Political Science: 3 semester hours.**
This is an introductory course in the study of politics, the various sub-fields in the discipline, and the variety of approaches used in the study of Political Science.
Prerequisites: POSC 1113 and POSC 1123.

**POSC 2143 Legal Studies: 3 semester hours.**
This course is designed to be an extensive examination of the structure, functions, and processes of this nation’s legal system. By the end of the course, students will have training in a wide variety of topics involving the law and have the skills necessary to succeed on the LSAT or in law school.

**POSC 2213 Blacks and the American Political System: 3 semester hours.**
This course offers a critical analysis of the position of blacks in the American politico-economic system, both historically and contemporarily.

**POSC 2413 Scope and Methods in Political Science: 3 semester hours.**
This course introduces majors to the various methods and approaches used in the field of Political Science.

**POSC 2503 Global Issues: 3 semester hours.**
Selected issues facing the global community are examined. Issues include hunger, energy, population, war and racism. The course has interdisciplinary and cross-cultural focus.

**POSC 2523 Studies of the Global South: 3 semester hours.**
The course surveys and analyzes the social, political and economic challenges facing Africa, Asia, and Latin America.

**POSC 2533 Latin American and Caribbean Politics: 3 semester hours.**
Designed to provide a comprehensive introduction to Latin American and Caribbean politics from a multi-disciplinary perspective. Examines the various dimensions of Latin American and Caribbean politics, including political and governmental structures, political and economic development and social stratification patterns. Analyzes the implications of globalization on Latin American and Caribbean political and socio-economic systems.

**POSC 2543 State and Local Government: 3 semester hours.**
Analysis of state and local governments in the federal system; encompasses an examination of the state and local politics in the United States with an emphasis on politics and public policy.
POS 3123 *Modern Political Theory: 3 semester hours.*
This course is a review of the political theories from the Reformation to the present, with special attention to Machiavelli, Bodin, Hobbes, Locke, Montesquieu, Jefferson, Rousseau, Mills, Hegel, and Marx.

POS 3213 *Public Policy Analysis: 3 semester hours.*
The course explores the processes involved in the formulation and implementation of authoritative decisions, with emphasis on alternative models of policy analysis and selected issues pertaining to the federal government and bureaucracy.

POS 3313 *Policital Studies Thru Film: 3 semester hours.*
This course critically analyzes films that portray concepts and issues that are fundamental to the study of political science, including freedom and equality, power imbalances, revolution and war, and political structures and processes.
Prerequisites: POSC 1113 or POSC 1123.

POS 3513 *Comparative Politics: 3 semester hours.*
Examines contemporary states in the context of current trends, including modernization, democracy, the environment, human rights, terrorism, security and globalization. Compares countries’ governing institutions in case study format.

POS 3523 *Comparative Politics of Developing States: 3 semester hours.*
Examines political processes in the developing states of Africa, Asia, and Latin America, with particular attention to the problems of political integration and nation building.

POS 3533 *U.S. Foreign Policy: 3 semester hours.*
This is a study of the American foreign policy, including the objectives, capabilities and formulation process.

POS 3543 *International Politics: 3 semester hours.*
The basic problems of international politics, focusing on the power competition among states and other transnational institutions, are the major focus of this course.

POS 3553 *African Politics: 3 semester hours.*
Explores the political history and development of African states.

POS 3593 *Middle East Politics: 3 semester hours.*
This course makes a comprehensive study of the major issues and dilemmas in contemporary Middle Eastern politics, including the clash of religions and nationalisms, security and stability in the Persian Gulf, the Arab-Israeli conflict, efforts at democratization, and the role of women.

POS 3993 *Independent Study: 1-3 semester hour.*
Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POS 4103 *Urban Government and Politics: 3 semester hours.*
This course examines the structure and functions of urban government. Considerable attention is given to the politics and current problems of metropolitan areas.

POS 4113 *American Constitutional Law: 3 semester hours.*
The principles of the American constitutional system, judicial interpretation and application of these principles, relative to the powers of government and the rights of individuals, are examined in depth.
Prerequisites: POSC 1113 and POSC 1123.

POS 4123 *The Constitution and Private Rights: 3 semester hours.*
Examines the rights and duties of U. S. citizenship with special attention to individual freedoms, primarily those found in the Bill of Rights. Emphasis is on the First Amendment, rights of the accused, the right to privacy and equal protection under the law.
Prerequisites: POSC 1113 and POSC 1123.

POS 4133 *The Presidency: 3 semester hours.*
This course traces the evolution of the office of the President of the United States while examining presidential powers in the areas of politics, administration, legislation, war, and foreign affairs.

POS 4143 *The Legislative Process: 3 semester hours.*
Provides a detailed study of the nature and extent of the legislative process, with special attention to the organization, procedure, and dynamics of policy-making by American legislatures.

POS 4156 *Internship in Political Science: 1-6 semester hour.*
The student will participate in the ongoing work of a government agency, at the local, state, national or international level or a related nongovernment organization that engages in domestic or international political affairs. Administered by the Political Science Program Coordinator in conjunction with on-site intern supervisor.

POS 4193 *Special Topics in Political Science: 3 semester hours.*
This course will focus on specific topics in political science which the professor deems appropriate and students desire. This course is repeatable for up to 9 semester credit hours when topics vary.

POS 4203 *Judicial Politics: 3 semester hours.*
This course makes an extensive analysis of the structure, functions and processes of the U.S. judicial and legal systems on both the federal and the state levels.
POSC 4213 Seminar in Political Science: 3 semester hours.
This course is devoted to intensive reading, writing, research, and discussion focusing on selected topics.

POSC 4993 Independent Study: 3 semester hours.
Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

Psychology (PSYC)

Courses

PSYC 1113 General Psychology: 3 semester hours.
Introduction to fundamental psychological concepts derived from the application of scientific method to the study of behavior.

PSYC 2423 Developmental Psych: 3 semester hours.
This course surveys the content, theories and methods used by developmental psychologists to study child and adolescent development. Topics covered will include conception, genetics, prenatal development and physical, motor, perceptual and social development from infancy to early adolescence. Theories of social and cognitive development will be covered.
Prerequisites: PSYC 1113.

PSYC 2513 Personality: 3 semester hours.
Personality theories, major concepts, methods and problems in the field of psychology. Analysis of theories of personality, with emphasis on personality development in the normal population. Evaluation of theories in the field of psychology. The development of personality as a pattern of strivings manifested in interpersonal relations. The coverage of constitutional, psychological, social and cultural factors in the development and adjustment of the normal individual.

PSYC 2613 Fundamental of Statistics: 3 semester hours.
Introduces basic statistical concepts and the relevance of statistics in the everyday life. Explores the fundamentals of descriptive statistics, elementary probability and sampling methods, and distributions. The student will be introduced to computer applications such as Statistical Package for the Social Sciences.

PSYC 3223 Abnormal Psychology: 3 semester hours.
Disorders in personality and behavior are emphasized. Examines organic and functional types of psychological abnormality. Some emphasis is given to the ways in which personality may become disordered. Evidence and theories on causation are considered together with the challenges of treatment.

PSYC 3233 Testing: 3 semester hours.
Study of human learning with particular attention to applications in the classroom. Includes laboratory experience in the use of the standardized school tests and practice in devising teacher-made tests. Emphasis is on original research literature and on individual projects.
Prerequisites: PSYC 2613.

PSYC 3313 Psychology of Learning: 3 semester hours.
This course will introduce you to the experimental analysis of learning and behavior. This course will examine the importance of basic learning mechanisms in understanding animal and human behavior, as well as the application of learning theory to real-world examples, will be stressed.
Prerequisites: PSYC 1113.

PSYC 3323 Social Psychology: 3 semester hours.
This course provides students with a survey of the topics covering the social bases of behavior. This course will examine some of the historical and philosophical foundations of social psychology, as well as theories and models of various social phenomena.
Prerequisites: PSYC 1113.

PSYC 3343 Experimental Psych: 3 semester hours.
Principles of experimental design, evaluation of research procedures, training in the use of standard apparatus, and repetition and extension of selected classical experiments in psychology. Only courses passed with grades of "C" or higher may be applied to hours constituting major requirements and psychology electives.
Prerequisites: PSYC 2613.

PSYC 3513 Human Diversity: 3 semester hours.
Examines psychological explanations of the major dimensions of human diversity including race, ethnicity, culture, gender, age and sexual orientation.
Prerequisites: PSYC 1113.

PSYC 3533 Socio Cult Psych: 3 semester hours.
A study of cultural comparisons of psychological processes with focus on societal, social influences of family, mass media, and socio-economic classes.

PSYC 3543 Hist Sys Psych: 3 semester hours.
A survey of the theories and research paradigms comprised of the foundations of psychology and the impact of culture on practice and theory.

PSYC 3603 Health Psychology: 3 semester hours.
This course will examine the theoretical and research foundations of behavioral health and illness from a biopsychosocial perspective. Students will be introduced to different medical disorders and diseases and the implications for the psychological health and impact on psychological functioning of individuals with these disorders.
**PSYC 3613 Stat For Psych II: 3 semester hours.**
Applies statistical techniques in the field of psychology. Covers the use of large and small samples for statistical inference, linear and multiple regression, time series models and forecasting, nonparametric methods, the chi square test for cell probabilities, and contingency tables. Statistical packages for the social sciences will be studied in depth.
Prerequisites: PSYC 2613.

**PSYC 3703 Introduction to Forensic Psychology: 3 semester hours.**
The course will focus on general principles and applications of forensic psychology. Students will gain an understanding of how research and theory can deepen understanding of participants and basic psychological processes in the legal system.

**PSYC 3713 Psychology of Terrorism: 3 semester hours.**
This course is designed to assist students in becoming more aware of factors that may contribute to the development of terrorist attitudes and behaviors. Students will learn how to define terrorism and distinguish different kinds of terrorist groups, which include juvenile terrorist groups, racial supremacist groups, and foreign terrorist groups. Students will also learn about environmental, cultural, familial factors related to terrorist activity.

**PSYC 3913 Indus Org Psych: 3 semester hours.**
A survey of the development and application of psychological principles related to the workplace environment to include leadership, motivation, industrial and organizational influences on behavior drawing upon research methods and major theories.

**PSYC 4253 Clinical Psych: 3 semester hours.**
A survey of counseling and interview techniques and use of psychological test findings in support of counseling procedures.

**PSYC 4513 Cognitive Psych: 3 semester hours.**
This course is an overview of the theoretical and empirical aspects of cognition as they apply to knowledge acquisition, storage, transformation and use. Areas of study include visual and auditory recognition; attention and consciousness; working and long-term memory; mental imagery; language acquisition, production and comprehension and problem solving.
Prerequisites: PSYC 1113.
Co-requisite: PSYC 4613.

**PSYC 4633 Sensation Perception: 3 semester hours.**
Examines the sensory processes, the relationship between physical stimuli and sensory/perceptual experience, and perceptual phenomena.
Prerequisites: PSYC 4613.

**PSYC 4823 Reading & Research: 3 semester hours.**
Offered when demand warrants. Seminar or projects on various topics in psychology.

**PSYC 4843 Senior Paper: 3 semester hours.**
An in-depth study of a specific research topic in psychology. An oral presentation is a requirement of the course.
Prerequisites: PSYC 2613 and PSYC 3433 and PSYC 3613 and PSYC 4443.

**PSYC 4913 Psychology Research: 1-3 semester hour.**
This research course provides students with an opportunity to conduct faculty-supervised research in an area of mutual interest resulting in an opportunity to obtain hands-on research experience for undergraduate students, who intend to either pursue graduate degrees or employment.
Prerequisites: PSYC 1113.

**PSYC 4993 Independent Study: 3 semester hours.**
Reading, research and/or field work on selected topics.
Reading (RDNG)

Courses

RDNG 3603 Evaluation of Reading Performance: 3 semester hours.
Application of basic measurement and evaluation techniques to reading performance.

RDNG 3613 Language Arts: 3 semester hours.
Highlights conditions necessary for children's best development in the language arts; materials and procedures for improving the quality of instruction. This course will emphasize oral and handwritten expression, listening, spelling, and handwriting.

RDNG 3623 Linguistics in Reading Instruction: 3 semester hours.
A study of the relationships between language dialect, linguistics phonics, and reading. Applications of linguistics to reading.

RDNG 3633 Rdnng Social Studies: 3 semester hours.
Readings in social living which emphasize democratic values and processes, organization of subject matter, and development of materials. The purpose of the course is to develop a continuous process in appraising the child's learning in terms of social experiences.

RDNG 3643 Methods of Teaching Elementary Reading: 3 semester hours.
Analysis of various approaches and methods used in teaching reading in the elementary grades.

RDNG 3653 Rdnng Science: 3 semester hours.
Readings of basic science concepts, the scientific method, methods of teaching science, selecting and organizing science subject matter, providing a variety of science experiences appropriate for children that use materials, community resources, and visual materials.

RDNG 4633 Developmental Reading: 3 semester hours.
Strategies for sequential skills development in basic reading instruction to emphasize identification of reading levels, and auditory and visual diagnosis.

RDNG 4643 Children's Lit: 3 semester hours.
The reading and evaluation of children's literature to include information about children's books, to develop children's interests in reading, authors, illustrators, and to solve problems in guidance of reading.

RDNG 4653 Foundations of Reading Instruction: 3 semester hours.
Stages in the development of reading ability. Emphasis of readiness, experiential backgrounds, individual needs and interests and enrichment.

RDNG 4673 Clinical and Laboratory Experiences in Reading: 3 semester hours.
Preparation, review, and analysis of case studies, research reports, trends, and issues in the teaching of reading.

RDNG 5613 Teaching Reading in the Elementary Grades: 3 semester hours.
Detailed consideration of problems involved in selection of content, grade placement, methods, and materials, and the evaluation of achievement.

RDNG 5623 Psychology of Reading and Reading Difficulties: 3 semester hours.
An examination of social and psychological factors related to success and failure in learning to read.

RDNG 5633 Teaching Reading in Secondary Schools: 3 semester hours.
Instructional approaches to reading in the secondary school. Planning, organizing, implementing, and evaluating instructional procedures and outcomes.

RDNG 5643 Diagnosis and Correction of Reading Difficulties: 3 semester hours.
Diagnostic devices and techniques for identifying strengths and weaknesses in reading. Prescriptive techniques for overcoming difficulties in reading.

RDNG 5663 Clinical Experiences in Reading: 3 semester hours.
Case study analysis, seminars, and field experiences in school classrooms.

RDNG 5673 Issues, Problems and Trends in Reading: 3 semester hours.
Study of historical, current and future issues, problems and trends in reading at the elementary and secondary school levels.

Secondary Education (SCED)

Social Work (SOWK)

Courses

SOWK 2113 Introduction to the Field of Social Work: 3 semester hours.
Introduction to the profession of social work and the institution of social welfare. Include overviews of social welfare history; the range of contemporary services and agencies, and professional values, ethics, licensing and associates. Generalist social work model presented. Involves agency experience. Required for social work major and minor.

SOWK 2133 Social Work with Children and Families: 3 semester hours.
Examination of social and cultural constructs of childhood including history and development of child welfare services; childhood developmental stages; social policy relevant to children, families and their well-being; assessment, intervention and direct services for children and families.
SOWK 2173 Multicultural Issues in Mental Health: 3 semester hours.
Exploration of the etiology and treatment modalities for addressing mental health issues with culturally diverse populations including African American, Hispanic American, and Asian American.

SOWK 3113 Social Welfare Policy and Services: 3 semester hours.
Introduces social welfare as a system of arrangements, programs, and mechanism for generalist social work practice in meeting human needs; survey of social welfare and issues related to social and economic justice.

SOWK 3123 Social Welfare Policy Analysis: 3 semester hours.
Study of the history, philosophy, structure and function of social welfare services; examination of policy-making processes and models, and effects of legislation on social work practice. Utilizes interdisciplinary approach including social, political, legal, economic and administrative. Prerequisites: SOWK 3113 (may be taken concurrently).

SOWK 3133 Human Behavior and the Social Environment I: 3 semester hours.
Exploration of the etiology and treatment modalities for addressing mental health issues with culturally diverse populations including African American, Hispanic American, and Asian American.

SOWK 3143 Human Behavior and the Social Environment II: 3 semester hours.
Continuation of the person in the environment emphasizing theoretical orientation, building understanding and knowledge of human behavior as influenced by bio-psycho-social-cultural factors. Emphasis on current perspectives on adulthood and aging, and theories helpful for understanding work with individuals in the context of their social environment. Prerequisites: SOWK 3133.

SOWK 3153 Social Work with At-Risk Juveniles: 3 semester hours.
Emphasizes generalist approach to delinquency prevention, and intervention within the correctional system.

SOWK 3163 Gerontological Social Work: 3 semester hours.
Introduction of fundamentals in gerontology (theories, principles, and concepts); interdisciplinary approaches to aging and life-span development including ecological and systems perspective.

SOWK 3173 Minority Aging: 3 semester hours.
Designed to survey the process of aging among predominant minority groups in the United States and other parts of the world. At completion of this course students should be able to identify and describe patterns of aging among blacks, Hispanics, Indians, Appalachians, and Asians, and to identify and analyze social problems for the minority groups studied.

SOWK 3213 Human and Cultural Diversity Social Work: 3 semester hours.
Acquisition and application of methods, theories, and skills sensitive to a wide variety of human differences for competent social work practice with diverse populations. Effects of prejudice, discrimination, and stereotyping at individual and institutional levels. Advocacy for social and economic justice specific to race, ethnicity, gender, age, religion, disability, social class, nationality, and sexual orientation.

SOWK 4123 Social Work Practice I: 3 semester hours.
Introduction to generalist social work practice theory, knowledge, values, and skills in professional practice with individuals, families, and small groups. Emphasis on ecological and systems framework; presents generalist methodological approach for problem solving. Prerequisites: SOWK 4123.

SOWK 4133 Social Work Practice II: 3 semester hours.
Acquisition and application of theories and practice approaches appropriate for professional generalist social work with groups, organizations, and community systems. Emphasizes leadership roles and skills, including analyses of systems processes and interactions. Builds on problem solving approach introduced in SOWK 4123. Thirty-six (36) hours of agency volunteer service required. Prerequisites: SOWK 4123.

SOWK 4143 Social Work Research I: 3 semester hours.
Study of the research process and its application to generalist social work practice. Conceptual foundation of social work research. Quantitative and qualitative methods of inquiry, research designs, data collection, and analysis of ethical and human diversity issues in research. Introduces computer research applications in social work practice.

SOWK 4153 Social Work Research II: 3 semester hours.
Advanced quantitative and qualitative methods of inquiry, research designs, and analysis of ethical and human diversity issues in social work research. Knowledge and skills in using advanced computer research applications in social work. Prerequisites: SOWK 4143.

SOWK 4163 Honors Seminar in Social Work: 3 semester hours.
Special seminar of current events in social welfare.

SOWK 4176 Field Practicum: 6 semester hours.
Supervised learning experience involving field-based placement in social service agency. Integration of theory and practice. All required social work foundation courses must be completed before entering practicum. Co-requisite: SOWK 4183.
SOWK 4183 Integrative Seminar: 3 semester hours.
Analysis and evaluation of the field-based experiences. Evaluation of conceptual framework for integrating social work knowledge, skills, and values gained from field experiences including administrative issues related to practicum, agency assignments and other field related issues for resolution. All required social work foundation courses must be completed before enrolling in this course.
Co-requisite: SOWK 4176.

SOWK 4343 Generalist Crisis Intervention: 3 semester hours.
Intervention with individuals, families, and communities in crisis using the generalist social work model. Crisis assessment, management and referral.

SOWK 4353 Intervention with Addicted Family: 3 semester hours.
Integration of theory and codependency, mental and physical abuse, and other obsessive behaviors.

SOWK 4363 Special topics in Social Work: 3 semester hours.
Select topics of interest in the field of social work and social welfare. May be repeated for credit when topics vary.

SOWK 4993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

Sociology (SOCG)

Courses

SOCG 1013 General Sociology: 3 semester hours.
Introduction to the discipline. Focus on why and how sociologists study social and cultural phenomena such as inequality, race and ethnicity, gender, populations, family, political behavior, deviance, and social change.

SOCG 2003 Sociology of Minorities: 3 semester hours.
Sociological study of traditional minorities (race, ethnicity, and religion) and new minorities (gender, sexual orientation and disability).

SOCG 2013 Sociology of Families: 3 semester hours.
Study of families as social institutions. Focus on social facts and theories of the size, composition, and life cycle of families, family violence, family diversity, family change, and myths about the family.

SOCG 2023 African Family and Culture: 3 semester hours.
Exploration of the institution of family from perspective of African peoples, cultures, and societies; explores issues of the Diaspora.

SOCG 2033 Social Psychology: 3 semester hours.
Uses major social psychological perspectives to analyze human behavior and the importance of others in determining self-perception, attitudes, motivation, conformity, communication, altruism, and aggression.

SOCG 2043 Social Problems: 3 semester hours.
Application of sociological principles to major social issues and problems in contemporary and global society with particular emphasis on the United States.

SOCG 2053 Social Deviance: 3 semester hours.
This course examines human behavior that violates social norms, the theoretical explanations of deviance, changing definitions of deviant behavior and issues of social conformity, societal sanctions and social control.

SOCG 3013 Urban Sociology: 3 semester hours.
Study of human settlement patterns, including the origin and development of cities, types of cities, urban political economy, spatial distribution of lifestyles, urban problems and recent trends in urbanization. Examines globalization and the rise of mega-cities and homelessness.

SOCG 3023 Correctional Treatment and Public Policy: 3 semester hours.
Sociological analysis of the historical development and current policies of the correctional system. Analysis of the justice process from crime to conviction: correctional systems (including jails), detention facilities to include local, state, federal and private penal systems.

SOCG 3033 Social Stratification in America: 3 semester hours.
A consideration of the research findings describing the American class structure. Special attention is given to the various strata, the determinants of membership in these strata, lifestyles and life changes associated with social position and with changes in position.

SOCG 3043 Juvenile Delinquency: 3 semester hours.
Sociological approaches to the nature and extent of juvenile delinquency; historical reasons for considering juvenile delinquency from adult crime perspective; influence of environments that support delinquency such as subcultures, peer groups, and gangs. Examines current societal measures used to address juvenile delinquency.

SOCG 3053 Addiction and Substance Abuse: 3 semester hours.
This course examines the biological, psychological and social forces as causal factors of addiction and examines various types of addictive behavior such as: drugs, alcohol, food, love/sex, gambling and technology.

SOCG 3063 Sociology of Drug Use and Abuse: 3 semester hours.
SOG 3073 Sociology of Drug Enforcement: 3 semester hours.
Study of current and historical agencies and policies used in drug enforcement. Emphasizing the roles of drug enforcement officials in the prevention and control of drugs in society.

SOG 3083 Sociology of Probation and Parole: 3 semester hours.
Examines the organization and administration of probation and parole services, including pre-sentence investigation, probation hearings, conditions of probation, and community supervision. Examines parole administration, including operation of Parole Boards, the selection process for parole, boot camp, shock incarceration and emerging issues in probation and parole.

SOG 3223 Political Sociology: 3 semester hours.
Comparative analysis of political development and political participation including voting behavior, public opinion, political parties and elites; political power and resource distribution in groups, organizations, institutions, communities, and societies.

SOG 3993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

SOG 4023 Special Topics in Sociology: 3 semester hours.
Intensive study of specialized topics in sociology and contemporary social issues. May be repeated for credit when topics vary.

SOG 4043 Collective Behavior and Social Change: 3 semester hours.
Examines the spontaneous behavior of impermanent, unstructured collections of people, including crowds, disaster, revolutions and social movements.

SOG 4053 Social Statistics: 3 semester hours.
Presentation of sociological data and introduction to descriptive and inferential statistics for social science majors. Includes computer applications. Prerequisites: MATH 1113.

SOG 4063 Demography: 3 semester hours.
Study of size, composition, growth and distribution of populations; social causes and consequences of population change; and collection and interpretation of vital statistics and census data.

SOG 4073 Global Sociology: 3 semester hours.
Study of the interaction of culture, technology and environment in the evolution of social life from hunting and gathering bands to global society. Explores recent theories of global society in the post-cold war world.

SOG 4143 Environmental Sociology: 3 semester hours.
Examines the relationship between humans and the natural world from a historical and cultural perspective exploring the issues of human progress and development, cross-cultural comparisons, the relationship between humans, animals, the land and raw materials, and current environmental problems and potential solutions.

SOG 4633 Cultural Sociology: 3 semester hours.
Study of culture including cultural universals, cultural conflicts, and cultural pluralism from a global perspective. Explores the effect of technology on cultural transmission and cultural change.

SOG 4723 Sociological Research Methods: 3 semester hours.
Introduction to methods of sociological research including experiments, survey research, secondary analysis, and observation. Includes computer applications.

SOG 4733 Sociological Theory: 3 semester hours.
Critical survey of major sociological theories from classical to contemporary schools of thought.

SOG 4763 Sociology Internship: 3 semester hours.
Placement in governmental agency, nonprofit organization or business for supervised experience in applied sociology. May require health examination or security clearance.

SOG 4783 Senior Seminar in Sociology: 3 semester hours.
Final integration of the major works of theory and research in sociology including subfields. Comprehensive exam and major paper required. Restricted to majors and must be taken the semester prior to graduation.

SOG 4993 Independent Study: 3 semester hours.
Readings, research, and/or field work on selected topics.

SOG 5123 Social Statistics: 3 semester hours.
This course is designed to enhance students’ statistical knowledge of measurement of central tendency, z-test, t-tests, and analysis of variance, correlation techniques and regression analysis.

SOG 5213 Classical Sociological Theory: 3 semester hours.
Major sociological contributions of the classical theorists including but not limited to Thomas Hobbes, Auguste Comte, Alexis de Tocqueville, Karl Marx, Emile Durkheim, Max Weber, Harriet Martineau, W.E.B. DuBois, and Jane Addams, providing the foundation for contemporary theory.

SOG 5223 Research Methods: 3 semester hours.
Advanced instruction in sociological research requiring a detailed treatment of qualitative and quantitative techniques of data collection and analysis. Written paper based on original research required.
**SOCG 5243 Urban Sociology: 3 semester hours.**
Examines the social structure of cities and the adjustment people make to urban conditions. Urban neighborhoods, population groupings, social processes, trends and problems are treated in the light of historical, ecological and social factors. A review of selected problems including urban tensions and the persistence of local ties such as family and ethnicity are explored.

**SOCG 5263 Sociology of Education: 3 semester hours.**
Exploration of knowledge in society and its relationship to the social structure and individual consciousness; how the social attributes of groups as well as individuals affect the production, ordering, and presentation of information as well as the form knowledge takes in a particular society.

**SOCG 5283 Aspects Of Poverty: 3 semester hours.**
Presentation of several theoretical perspectives on poverty in American society. Past, current, and proposed solutions of poverty are discussed.

**SOCG 5333 Criminology: 3 semester hours.**
A survey of the historical and contemporary explanations of phenomena of crime and criminal behavior from the perspective of contemporary theories and the analysis of evidence supportive of various theoretical positions. Crime measurement and crime statistics are also discussed, as are the techniques for crime analysis.

**SOCG 5353 Seminar in Race Relations: 3 semester hours.**
Wide range exploration of the dynamics of inter-group relations including historical and sociological factors in race and ethnic relations. An examination of politico-economic and societal development processes that serve to maintain social positions in contemporary society.

**SOCG 5413 Contemporary Sociological Theory: 3 semester hours.**
Basic ideas of contemporary sociological theory: structuralism, functionalism, conflict, symbolic interaction, exchange; includes but not limited to the works of Parsons, Merton, Mead, Cooley, Goffinan, Coser, Dahrendorf, Marcuse and Habermas and their application to current research. Prerequisites: SOCG 5213.

**SOCG 5423 Social Stratification: 3 semester hours.**
Analysis of the nature of social stratification and its relation to other aspects of society: distribution of influence and wealth occupational structural, family relations, religious and educational institutions, minority problems, and cultural patterns. Comparison between open class, caste and other arrangements. Sources of mobility and change in stratification systems. Also addresses the impact of different forms of ranking and the consequent inequalities that arise.

**SOCG 5433 Theory of Criminal Justice System: 3 semester hours.**
Theoretical analysis of crime and criminal justice systems including the police, courts and prisons that deal with people who are accused of having committed crimes. Theories of crime commission include: Differential Association Theory, Control Theory, Labeling Theory, Strain Theory, and Illegitimate Opportunity Theory among others.

**SOCG 5443 Social Movements: 3 semester hours.**
Examination of theories and research on social movement and social change; historical and contemporary social movements in the United States and elsewhere; collective violence and protest; terrorism and social and political revolutions.

**SOCG 5453 Complex Organizations: 3 semester hours.**
Introduces students to the critical examination of modern organizations, the nature of bureaucracy and its effect on personality, social relations, group dynamics and social change. Examines bureaucratic arrangements and processes in a variety of organizational context such as corporations, universities, unions, professionals associations, government bureaus and religious institutions. The role of power in bureaucratic settings and exchanges is explored.

**SOCG 5463 Special Topics: 3 semester hours.**
Seminar on specialized topics in sociology. Subject matter may vary by semester. May be repeated for credit when topics vary.

**SOCG 5533 Sociology of Gender and Sex Roles: 3 semester hours.**
Analyzes the social significance of gender through the exploration of the theoretical nature of women's oppression and inequalities between women and men. A cross-cultural analysis of the development of gender roles and an examination of contemporary gender inequality in terms of gendered work patterns, labor force participation, and occupational mobility as well as alternatives to conventional division of labor by sex in society.

**SOCG 5613 Thesis: 3 semester hours.**
A candidate for the Master of Sociology is required to prepare a thesis under the direction of a faculty thesis committee. The thesis must be orally defended and approved by all members of the faculty thesis committee before the degree is conferred. The student must register for thesis each semester until satisfactorily completed.

**SOCG 5623 Thesis: 3 semester hours.**
A candidate for the Master of Sociology is required to prepare a thesis under the direction of a faculty thesis committee. The thesis must be orally defended and approved by all members of the faculty thesis committee before the degree is conferred. The student must register for thesis each semester until satisfactorily completed. Prerequisites: SOCG 5213.

**SOCG 5993 Independent Study: 3 semester hours.**
Readings, research, and/or field work on selected topics.
Spanish (SPAN)

Courses

**SPAN 1013 Elementary Spanish I:** 3 semester hours.
Practice in listening, speaking, reading and writing skills in Spanish to acquire elementary vocabulary and structures and a general knowledge of Hispanic culture.

**SPAN 1023 Elementary Spanish II:** 3 semester hours.
Continuation of acquisition of language skills and culture introduced in Elementary Spanish 1.

**SPAN 2013 Intermediate Spanish I:** 3 semester hours.
Continuation of acquisition of language skills and culture presented in Elementary Spanish I and II.

**SPAN 2023 Intermediate Spanish II:** 3 semester hours.
Continuation of acquisition of language skills and culture on an intermediate level with emphasis on reading and discussion, grammar review, and use of idioms.

**SPAN 3023 Survey of Spanish Literature I:** 3 semester hours.
Representative selections and masterpieces of the literature of Spain from Poema del Cid to the eighteenth century.
Prerequisites: SPAN 2023.

**SPAN 3033 Survey of Spanish Literature II:** 3 semester hours.
Representative selections and masterpieces of the literature of Spain from 1700 to the Generation of 1898.
Prerequisites: SPAN 2023.

**SPAN 3063 Spanish-American Literature I:** 3 semester hours.
A survey of Spanish-American literature from the period of discovery and exploration through the Modernista movement.
Prerequisites: SPAN 2023.

**SPAN 3073 Spanish-American Literature II:** 3 semester hours.
A survey of Spanish-American literature since the Modernista movement.
Prerequisites: SPAN 2023.

**SPAN 3093 Hispanic Civilization and Culture I:** 3 semester hours.
Main currents of the intellectual, political, and economic history of Spain.
Prerequisites: SPAN 2023.

**SPAN 3203 Spanish Conversation:** 3 semester hours.
Practice in oral composition. Guided conversation involving the vocabulary of everyday situations.
Prerequisites: SPAN 2023.

**SPAN 3213 Spanish Composition:** 3 semester hours.
Practice in written composition. Salient principles of grammar and syntax in written work.
Prerequisites: SPAN 2023.

**SPAN 3303 Hispanic American Film:** 3 semester hours.
This course is an introduction to the terminology, concepts, and criticism of film. It enables students to examine film within its social, cultural, and historical contexts with an emphasis on the ways filmmakers use angles, lenses, sound, lighting, color, and editing.
Prerequisites: SPAN 2023.

**SPAN 4003 Hispanic Civilization and Culture II:** 3 semester hours.
Main currents of the intellectual, political, and economic history of Mexico in particular and of Latin America in general.
Prerequisites: SPAN 2023.

**SPAN 4043 Spanish Phonetics:** 3 semester hours.
A practical study of the principal constituents of Spanish pronunciation, articulation, and accentuation.
Prerequisites: SPAN 2023 and SPAN 3203 and SPAN 3213.

**SPAN 4063 Spanish Applied Linguistics:** 3 semester hours.
Practical study of the application of linguistics to the teaching of Spanish phonology, morphology, syntax, vocabulary, literature, and culture.
Prerequisites: (SPAN 2023 and SPAN 3203 and SPAN 3213).

**SPAN 4433 Special Topics in Spanish:** 3 semester hours.
Seminar offers a critical examination of a topic within the instructor's field of specialization. Emphasis on scholarly analysis and research allows students to demonstrate the capacity to bring information, skills, and ideas acquired from the Spanish major and various curricula to bear on a topic or project.
Prerequisites: SPAN 2023.

**SPAN 4993 Independent Study:** 3 semester hours.
Readings, research, and/or field work on selected topics.
Prerequisites: SPAN 2023.
Special Education (SPED)

Courses

**SPED 3003 Introduction to Exceptional Children: 3 semester hours.**
Basic theories and concepts related to identification and classification of exceptional children and youth.

**SPED 3013 Psychology of Retardation: 3 semester hours.**
An introduction to the psychology of intellectual disabilities in children and youth.
Prerequisites: SPED 3003 (may be taken concurrently).

**SPED 4003 Psychology of Behavior Disorders: 3 semester hours.**
Various theoretical aspects of the behavior of children with severe disturbances to mild emotional problems.
Prerequisites: SPED 3003 and SPED 3013.

**SPED 4013 Language and Communication Problems: 3 semester hours.**
An overview of particular communication problems as they relate to the oral language skills of the exceptional learner.
Prerequisites: SPED 3003 and SPED 3013.

**SPED 4023 Psychometrics for Exceptional Children and Youth: 3 semester hours.**
Legal implications of the assessment of children exhibiting the characteristics of behavior disorders, learning disabilities, and/or intellectual disabilities.
Prerequisites: SPED 3003 and SPED 3013 and SPED 4003 and SPED 4013.

**SPED 4033 Consultation: 3 semester hours.**
Models of consultation; interpersonal communication skills; problem-solving approaches; effective interaction with colleagues, paraprofessionals, and parents; transitional mandates; and planning/conducting in-service training for professionals.
Prerequisites: SPED 3003 and SPED 3013 and SPED 4003 and SPED 4013 and SPED 4023.

**SPED 4113 Methods for Teaching Exceptional Children: 3 semester hours.**
Study of instructional problems teaching retarded, behavioral, and/or learning-disabled children and youth; organization of special classes; and curriculum adaptations. Includes 15 clock hours of field-based experiences with exceptional learners.

**SPED 4123 Practicum: 3 semester hours.**
Field-based experiences involving exceptional learners in classroom activities. Activities include 15 clock hours of classroom observation, concepts and skills associated with referrals of classroom problems, tests and evaluation procedures.
Prerequisites: SPED 3003 and SPED 3013 and SPED 4003 and SPED 4013 and SPED 4023 and SPED 4033.
Co-requisite: SPED 4113.

**SPED 5203 Special Education Seminar: 3 semester hours.**
A seminar designed to investigate contemporary issues in the area of special education as well as to increase the students' familiarity with current literature and knowledge in the field.

**SPED 5213 Survey of the Exceptional Learner: 3 semester hours.**
An in-depth study of the various types of exceptional learners and their educational needs.

**SPED 5223 Diverse Learners in Inclusive Settings: 3 semester hours.**
Designed to provide the learner with an overview of various tests, learning characteristics and etiology of the student with multi-sensory learning needs.

**SPED 5233 Language and Communication Problems: 3 semester hours.**
An overview of particular communication problems as they relate to the oral language skills of the exceptional learner.

**SPED 5243 Methods for the Exceptional Learner with Multisensory Needs: 3 semester hours.**
Deals with problems of instruction, methods of teaching students with multi-sensory learning needs and curriculum development for the exceptional learner.

**SPED 5263 Individual Testing of Exceptional Children: 3 semester hours.**
Designed to provide the opportunity for students to experience and develop a descriptive orientation through assessments for the exceptional learner.
Prerequisites: SPED 5213.

**SPED 5273 Learning Theory: 3 semester hours.**
An in-depth study of the various learning theories and an analysis of systematic approaches to learning.

**SPED 5283 Curriculum Adjustment and the Exceptional Child: 3 semester hours.**
The experience of altering traditional curricula to mesh with the individual multisensory learning needs of the exceptional learner.

**SPED 5343 Practicum: 3 semester hours.**
Direct experience with children referred to the special education laboratory for testing and evaluation. These referrals are related directly to public school problems.
SPED 5353 Diagnostic and Prescriptive Techniques for Exceptional Learners: 3 semester hours.
Designed to familiarize the learner with the administration, scoring and instructional implications of individualized testing designed for the exceptional learner.
Prerequisites: (SPED 5213 and SPED 5263 and SPED 5283).

Supervision (SUPV)

Courses

SUPV 5113 Principles of Supervision: 3 semester hours.
Principles, practices and problems of the supervisory program; includes analysis of current research in the field.
Prerequisites: ADMN 5073.

SUPV 5213 The School Supervisor: 3 semester hours.
A rationale for supervision, and techniques for the supervision of instructional personnel and programs with special emphasis on the clinical supervision cycle.

SUPV 5713 Problems in Supervision: 3 semester hours.
The study and analysis of contemporary issues related to the supervisory function in an educational setting.

Technology (TECH)

Vocational Education (VOED)

Courses

VOED 4303 Shop Organization and Classroom Management: 3 semester hours.
A study of organizing classroom and training laboratories for efficient instruction and class management. Covers grading, keeping records, taking inventory, purchasing supplies, equipment specifications, equipment installation, climatic conditions, lighting, safety, and accident prevention.
Catalog Support

Individuals new to Courseleaf must complete initial training prior to receiving access to the system. The standard training session takes place three to four weeks prior to the catalog opening for edits. However, training outside of the schedule can be requested by selecting the link below.

To request access to CourseLeaf, go to www.pvamu.edu/academicaffairs:

1. Select Catalog Support under Academic Affairs - [Employee Only Access]

For additional questions, please contact academicdocs@pvamu.edu.

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Prairie View A&M University
CourseLeaf Administrator
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